Annual Report
January 1, 2017 to December 31, 2017

College of Agriculture, Food Systems, and Natural Resources (CAFSNR)

with contributions from

North Dakota Agricultural Experiment Station
NDSU Extension Service

Kenneth F. Grafton – Vice-President for Agricultural Affairs, Dean and Director, North Dakota Agricultural Experiment Station
Gregory P. Lardy – Associate Vice-President for Agricultural Affairs
Chris M. Boerboom – Director, NDSU Extension Service
David S. Buchanan – Associate Dean for Academic Programs
Jane M. Schuh – Associate Director, North Dakota Agricultural Experiment Station
Department of Agribusiness and Applied Economics

A. Goals and Priorities: 2017
• Increase reputation and visibility with regional conferences (e.g., Farm Bill, Lenders, Crop Insurance, and Crop Outlook conferences).
• Create a departmental Advisory Board.
• Increase stability/excellence by continuing fund raising for centers (e.g., Center for Public Choice and Private Enterprises), endowments (e.g., Ag. Finance) and other initiatives.
• Complete department’s annual assessment report.
• Implement joint MS/MBA with College of Business Administration and joint MS in Applied Economics with MSUM.
• Hire new faculty/staff for new initiatives and critical positions.
• Enhance student learning in both undergraduate and graduate programs.
• Continue to increase/maximize use of the CTR with other programs.

B. Executive Summary of Accomplishments in Achieving Goals and Priorities
The year 2017 was a busy and successful year, as we accomplished most of our goals and priorities. The department finally has an Advisory Board, with stakeholders from all sectors (industry, agencies, farm, water, and energy). The Board met twice and is taking an active role in planning our centennial celebration, fund raising, and student placement. The department organized several extension/outreach conferences (in Agricultural Lending, Crop Insurance, Renewable Energy, and Crop Production Outlook) and continued a regular news column in “Spotlight on Economics” and “It’s Happening at State.” Faculty, support staff, and students won ten awards for excellence within the university and nationally (seven awards for faculty and the department, two awards for staff, and one for our students). Grant awards and gifts totaled $7.4 million dollars with a direct department share of approximately $1.9 million. The MS/MBA with the College of Business Administration was delayed as the CoB revamped its MBA program. The department started a new 4+1 MS program for our top students and MSUM. Our Program Review report was received positively by the university.

The department filled three faculty positions in the areas of Macroeconomics (Dr. James Caton with the PCPE Center), Extension Farm Financial Management (Dr. Bryon Parman), Risk and Trading (Dr. David Bullock with the Center for Risk and Trading. The department also had a successful search for another PCPE position in Economics of Public Choice (Dr. Raymond March). We had two retirements (Mr. Andrew Swenson and Mrs. Sandra Osborne). The department had two faculty promoted, one to Associate Professor with Tenure (Dr. Lei Zhang) and Full Professor (Dr. Saleem Shaik); both pending approval from the State Board of Higher Education.

a. Teaching
• The department finally customized its learning assessment protocol for our three undergraduate programs and two graduate programs.
• We serviced all introductory econ courses for the university with new sections to improve graduation.
• Our NAMA students made it to the semifinals again, six years in a row.
• We place almost all our students, with a significant number working in the state.
• The department continues to have a ratio of produced FTE higher than budgeted FTE.
• Most MS theses result in peer reviewed journal articles and professional presentations.
• Faculty and staff received five teaching and advising awards.
• Four of our students were among the Top Ten students in the college.

b. Research, Scholarship, and Creative Activities
Totals

Peer-Reviewed Publications (published/accepted) 52*
Other Publications (Technical Reports) 42
National or International invited Peer-Reviewed Presentation 42
Extension and Outreach Presentations 166
Juried Presentations/Performances Awards/exhibitions 9
Research Grants and Contracts 34*
Research Grants and Contracts: cumulative/participated in $7,402,267

*Does not include double counting

c. **Service/Outreach/Extension**
   - The department organized multiple conferences in Bioenergy Efficiency, Agricultural Lending, Crop Outlook, and Crop Insurance.
   - We completed work on ND Tax Department and ND Agricultural Land Valuation Model.
   - We had more than 196 extension and outreach presentations around the state, region, etc.
   - Dr. Miljkovic: Editor of *Journal of International Agricultural Trade and Development* and *Journal of Agricultural and Resource Economics*.
   - Drs. Wachenheim and Nganje served as Associate Editors for the IFAMR journal.
   - The department received the Trade Office award for excellence in service.

d. **Goals and Priorities for 2018**
   - Perform various activities for centennial celebration centered on showcasing our students/department and fund raising.
   - Increase visibility with regional conferences (e.g., Ag Lenders, Crop Insurance, and Crop Outlook conferences).
   - Meet twice a year with departmental Advisory Board, increase collaboration with industry.
   - Increase stability/excellence by continued fund raising for Centers and new endowments (e.g., Ag. Finance and Farmers Union).
   - Complete department’s annual assessment reports.
   - Implement joint MS/MBA with College of Business and MOUs with international institutions.
   - Hire new faculty/staff for critical positions.
   - Continue to increase/maximize use of the CTR (e.g., finance and energy risks management).
Agricultural and Biosystems Engineering

A. Significant Departmental achievements in research, teaching and outreach in the past year
   a. Teaching
      • ABEN generated 2062 student credit hours with 3.45 teaching faculty FTE.
      • ABEN graduated 43 undergraduate students and 10 graduate students.
      • ABEN had 144 undergraduate students, and ABEN faculty supervised 27 graduate students.

List new initiatives, innovative teaching approaches, provide evidence of improvements
   • More lab experiences were incorporated into the hydraulics courses in ASM and ABEN Programs utilizing the new hydraulics lab.
   • ABEN 110 was offered as a 3-cr course for the first time, as a strong hands-on course and a flipped classroom. More design experience is being incorporated throughout the ABEN program.
   • Established a new scholarship program for the incoming freshmen, developed new recruitment materials, and recruited at FFA as part of a pro-active recruitment effort

b. Research/Scholarly/Creative Activities

Major research accomplishments – ABEN had seven faculty with research appointment in 2017
   • ABEN faculty successfully received or participated in 57 grant projects for a cumulative $9.9 M, of which $2.5 M was administered through the department.
   • A total of seven faculty with research appointment generated 30 refereed articles, 4 abstracts, 38 proceedings, 13 invited talks, and 1 report.
   • A drainage water program in the Red River Basin was developed.
   • A model for groundwater allocation and management at the Bakken Shale in western North Dakota was accomplished and circulated.
   • High visibility UAS research projects at NDSU were developed with three UAS companies.
   • ABEN continues to provide state and regional leadership in UAS and precision ag research

c. Extension/Outreach

List new initiatives, innovative Extension approaches
   • An Extension precision agriculture seminar series for NDSU Extension agents is in progress.
   • The NDSU Extension flood website had 20,720 views Jul- Sep, 2017, after Hurricane Harvey.
   • A Tile Drainage Design Workshop in Grand Forks ND instructed and trained 45 people.
   • SB-2263, a revision to the tile drainage a law, was successfully passed after testifying to the Agriculture Committee of the ND Senate in Winnipeg to the Legislative Council.

d. Service - Several faculty won prestigious awards.
   • Several faculty served on editorial boards and as expert manuscript reviewers
   • Faculty served on many proposal review panels and as expert reviewers
   • Faculty served on department, college and university capacities as members and leaders
   • Faculty served on professional organizations in leadership positions
   • Faculty served on conference and exposition planning committees for precision ag summit, bioindustry summit, Big Iron Show, etc.
   • Faculty served in leadership capacity in local organizations on outreach and workforce development

B. Department Goals and Priorities for the past year, and progress toward those goals.
   • Implement the budget cut with minimal impact on department productivity and morale.
   • Establish/maintain strong working relationship with alumni, employers and stakeholders to generate support for ABEN programs and needs.
   • Continuous improvement and strengthening of ABEN programs & student experience.
• Promote ABEN department and faculty within NDSU, Nationally & Internationally.
• Maintain a productive and collegial environment for personal & professional development
• Begin the process of developing a vision and long-term goals for ABEN department
• Professional development: Engage in professional development activities.
• Research scholarship: Maintain a strong research program
• Continue service to the university and profession

C. Department Challenges for the past year, and how those are being addressed.

Two ABEN faculty and 2.25 staff FTE were lost in 2016-2017. Temporary instructors were hired to meet the resulting teaching needs. The 1.25 FTE cut in Research Specialist was supplemented from the indirect costs account. Going forward, all research faculty members were given the opportunity to get grant funding to partially support the research specialist, with the department matching equal amount of time of the staff to devote to the specific project.

The office staff took on the responsibilities of the account technician we lost during the budget cut, however, it is not as efficient or easy for the untrained staff members to perform accounting tasks beyond their own responsibilities, and has created hardships for office staff and faculty with grant funding.

ABEN department is facing a strong need in the region for research and educational programs. However, lack of research and teaching faculty and resources to address this state need. We need more state support to address this need.

D. Department Goals and Priorities for the Coming Year

• Grow ABEN faculty and staff, and student enrollment to ensure the quality of our teaching programs, and to meet the needs of the citizens.
• Develop a new major and minor in precision agriculture.
• Establish a smart farm in Casselton, with strong research, extension and outreach components, and partnership within and outside NDSU.
• Continue to expand partnership with industry and other constituent groups.
• Maintain high productivity in research and education.
• Promote the ABEN department and grow its reputation within NDSU, nationally & internationally.
• Successful accreditation of ABEN UG program.
• Implement new recruitment strategies to increase UG student enrolment.
Department of Animal Sciences

A. Significant Departmental achievements in research, teaching and outreach during the past year
   a) Teaching
      • Changes made since last report to enhance student learning to achieve the intended student learning outcomes for the curriculum.
        A faculty driven effort to implement a regular Teaching Café discussion group has been developed. Faculty meet and share ideas related to teaching. Faculty in Veterinary Technology have reviewed and updated curriculum for that major as requirements from the American Veterinary Medical Association continue to evolve. With the changes in 189 courses at the University level, the department has reviewed and updated their approach to these courses as well in an attempt to better prepare students for particular majors.
      • List new initiatives, innovative teaching approaches (providing evidence of quality improvements in teaching and learning).
        Pass rates for NDSU Veterinary Technology students taking the national licensing examination continue to exceed the national averages (89.7% vs 67.9% when averaged from 2015-2017).
   b) Research/Scholarly/Creative Activities
      • Major research accomplishments
        Departmental faculty continue to be successful at securing grant funds from a variety of sources to support research activity. Multiple faculty secured grants from the Precision Agriculture funds as well as a variety of commodity groups to support major research efforts. Faculty secure grant funds, contracts, and other sources of money to support technician salaries under the new funding plan.
      • Significant additions to research capability
   c) Extension/Outreach
      • List new initiatives, innovative extension approaches
        Two extension faculty lead our Livestock and Environmental Stewardship extension programming effort. This program is unique, in part, because it involves a very diverse advisory board which meets twice annually to discuss programming needs. The department continues to offer Moos, Ewes & More to the public in the Fargo Moorhead area to rave reviews from attendees.
        The sheep extension specialist planned and organized a joint meeting for members of the ND Lamb and Wool Producers and the Minnesota Lamb and Wool Producers.
   d. Service
      • Summarize state, national, or international professional service activities over the past year that are most noteworthy (for example: elected to lead national or international professional organization, organizing national or international professional meetings, etc.)
        Dr. Joel Caton serves as a Director At Large for the American Society of Animal Science board and completed his term as the Associate Editor in Chief for the Journal of Animal Science. Dr. Rob Maddock serves as a Director for the American Meat Science Association. Dr. Eric Berg was elected President-Elect of the American Meat Science Association.
        The department hosted the Western Section of the American Society of Animal Science for their annual meeting. Many department faculty were involved in planning and conducting this meeting and the department was a significant financial sponsor as well.

B. Department Goals and Priorities for the past year, including narrative about progress toward those goals.

Teaching Goals
• Ask the department Curriculum Committee to conduct a review of the curriculum changes in the Animal Sciences major and evaluate the options within the major which were implemented in 2010.
• The departmental Curriculum Committee met and reviewed curriculum for all three majors as part of an effort to move each major to 120 credits required for graduation. All three majors developed POS’s for their student’s to follow.

Research Goals
• Address the vacancies in technical support which exist in the department and continue to review how we can optimize existing technical support.
• Two technical positions were eliminated through a reduction in force as a result of the budget cuts. Several other technical positions were partially shifted to grant funds to cover budget shortfalls.

Extension Goals
• Work with constituency groups to address how to meet their extension needs.
• The department has worked closely with the ND Livestock Alliance to stay abreast of livestock development efforts in North Dakota. This organization has hired an executive director and is actively working to recruit livestock operations to the state. Dr. Lardy serves as an ex officio member of their board.

C. Department Challenges for the past year, including narrative on how those are being addressed. The major challenge continues to be the budget. We are slowly refilling vacancies in staff and faculty lines. As of the time of this report writing, the department was recruiting for five faculty positions and six staff positions. These vacancies are the result of a backlog of positions which were left vacant due to budget cuts, retirements, and resignations. The budget challenges also affect employee morale as not pay raises were given this in either year of this biennium.

D. Department Goals and Priorities for the Coming Year
Teaching Goals
• Work with the equine faculty to develop a recruiting plan for students in their major.

Research Goals
• Continue to seek grant dollars to backfill technician vacancies and cost share requirements. Work with constituent groups to emphasize the need for increased funding.

Extension Goals
• Work with constituency groups to address how to meet their extension needs. In particular, the swine and dairy industries are not well served with the current staffing model.
A. Significant Departmental achievements in research, teaching and outreach during the past year

a. Teaching

Microbiological Sciences launched a new outcomes-based PhD program in fall 2017. The program has seven major learning outcomes in areas such as the scientific method, research skills, communication, ethics, civic responsibility, and professional development. A major advantage of this outcomes-based program, which is the first of its kind at NDSU, is that students do not require coursework to demonstrate that they meet learning objectives. This flexibility makes it easy to tailor the program to the individual needs of each student.

Microbiological Sciences continued to incorporate authentic learning experiences (ALEs) into the undergraduate microbiology curriculum. An exciting example was a genome sequencing experiment that was performed by students in General Microbiology II Laboratory (MICR 352L). In this experiment, students used cutting-edge, high throughput DNA sequencing technology and bioinformatics to assess the evolution of a microbe’s genome in response to an environmental stress.

Three Microbiological Sciences faculty participated in the Gateways ND program, which is a five-year National Science Foundation (NSF)-funded instructional faculty and staff development program. The program, which is hosted by NDSU’s Office of Teaching and Learning, is designed to offer relevant, collaborative, and sustained support to NDSU educators.

Twelve undergraduate students participated in research projects in Microbiological Sciences. Three of these undergraduates were recipients of a Russell and Anna Duncan Undergraduate Research Scholarship. One undergraduate researcher was first author on a peer-reviewed journal article published in 2017.

b. Research/Scholarly/Creative Activities

Research directed by Microbiological Sciences faculty was funded by federal grants from the United States Department of Agriculture, the National Institutes of Health, the National Science Foundation, and the US Department of State. Other sources of research support included the NDSU Bioinformatics Seed Grant Program, the NDSU Office of Research and Creative Activities, the North Dakota Department of Commerce, the North Dakota State Board of Agricultural Research and Education, and the North Dakota Agricultural Products Utilization Commission. Diverse research projects in Microbiological Sciences addressed the development of vaccines against swine influenza, how microbial populations diverge, how foodborne pathogens attach to surfaces, the inactivation of pathogens on low moisture foods using steam at low temperatures and pressures, how gut pathogens invade tissues, and the treatment of pesticide-contaminated groundwater using a point-of-use filtration unit.

Outputs from department research programs in 2017 included 12 peer-reviewed publications and 27 abstracts/proceedings/presentations at national and international conferences.

c. Extension/Outreach

Microbiological Sciences continued to work with Kennedy and Lincoln elementary schools to bring science into classrooms. Activities included working with microscopes and talking about microbes and DNA. For the second year, Microbiological Sciences taught microbiology labs for area high-schoolers in Upward Bound, a college access and preparation program funded by the US Department of Education and sponsored by North Dakota State University. Upward Bound is designed to help students succeed in high school and prepare for continued success in college.
d. Service

Faculty in Microbiological Sciences participated in the North Dakota Science Olympiad in April. Dr. Teresa Bergholz served on the editorial board of Applied and Environmental Microbiology, the leading microbiology journal, and Journal of Food Protection. Dr. Sheela Ramamoorthy was elected Vice-President of the National Committee for the Detection and Control of Porcine Reproductive and Respiratory Syndrome Virus and Emerging Viral Diseases of Swine. Drs. Jane Schuh and Gene Berry served as directors of the interdisciplinary Cellular and Molecular Biology and Biotechnology programs, respectively. Dr. Birgit Pruess was elected to serve as Faculty Advisor on the State Board of Higher Education.

B. Department Goals and Priorities for the past year, including narrative about progress toward those goals.

- To continue the process of redeveloping the undergraduate curriculum. The department has identified desired outcomes for the microbiology BS and is working to develop a plan to assess these outcomes.
- To identify and compete for funding to support undergraduate and graduate programs in the department. Faculty obtained grants from National Institutes of Health and United States Department of Agriculture with support for undergraduate and graduate research.

C. Department Challenges for the past year, including narrative on how those are being addressed.

No major challenges.

D. Department Goals and Priorities for the Coming Year

- To hire an Assistant Professor of Practice to teach general microbiology courses and carry out research on education
- To begin developing a research initiative addressing microbiomes in agriculture – known as the Agribiome
- To continue to reform the microbiology BS curriculum and begin work on an accelerated microbiology MS curriculum.
Department of Plant Pathology

A. Significant Departmental achievements during the past year.

a. Teaching

- Changes made since last report to enhance student learning to achieve the intended student learning outcomes for the curriculum. Several faculty took graduate students to various field days. Departmental faculty delivered at least five guest lectures to classes taught in three departments. PPTH 324 had a record enrollment that required a sixth lab section. Volunteer graduate student TAs help the department meet its teaching demand of the class. Rasmussen reorganized his portion of the class to improve lecture flow.

- List new initiatives, innovative teaching approaches (providing evidence of quality improvements in teaching and learning and important recognitions. Meinhardt continues compiling assessment data on presentations and qualifying exams for the department. Del Rio’s students presented research results to and interacted with Northern Canola Grower’s Research Committee. Del Rio also taught PPTH 754. He modified a project so students could learn of disease forecasting systems not covered in class and to allow students to summarize information and present it to the class. Laboratory practices were restructured so students could finish assignments during lab time instead of taking additional time without direct guidance and supervision by the instructor. Brueggeman used next generation sequence analyses in PPTH 759 to teach graduate students how to analyze sequence data and propose hypotheses based on gene architecture and function.

b. Research/Scholarly/Creative

- Major research accomplishments. In 2017, departmental faculty:
  - Published 49 refereed papers with at least 15 more “in press” for publication in 2018.
  - Were associated with at least 110 funding lines worth over $9,164,514 to the profession and over $5,128,599 to the department over the duration of the grants.
  - Were authors on at least 68 abstracts, proceedings, and similar publications.
  - Were authors on eight published book chapters.
  - Gave six invited presentations in USA and another 18 invited international presentations in Belgium, Brazil, Canada, Chile, China, Japan, Poland, Serbia, and Sweden.
  - Were awarded two more NSF grants (both by Brueggeman, his 3rd and 4th in total).

- Significant additions to research capability
  - Brueggeman incorporated RNAscope methodology to detect gene expression in planta. He also added the S5 Ion Torrent DNA sequencer to our DNA sequencing lab.
  - Pasche traveled to USDA facilities in Beltsville, MD to learn dry bean rust techniques from the world’s authority.
  - Several postdoctoral and technical hires were made.
  - Faculty made multiple major equipment purchases, including growth chambers, and made significant upgrades to field equipment.

c. Extension/Outreach.

- List new initiatives, innovative extension approaches
  - Friskop lead the effort to update the NDSU Extension Pest Management App. The app is updated on annual basis and now includes a photo submission portal, herbicide efficacy
tables, and links to Extension events. Additional funding was secured to build a pest photo library and include pest control information for pulse crops.

- Markell organized Eastern and Western Scout Schools. Approximately 180 students were trained to scientifically sample fields and to identify diseases and pests. Each student earned one NDSU academic credit.
- Knodel was coordinator & co-editor of *Crop & Pest Report*.

d. Service. Several faculty were engaged with our major professional society, the American Phytopathological Society (APS). Brueggeman served on two USDA-NIFA grant panels and one joint NSF-USDA panel. Frikop is editor of the APS book “Farmer’s Guide to Wheat Diseases.” He also chairs the FHB Management Research Area Committee and serves on the Steering Committee of the for the US Wheat and Barley Scab Initiative, is President of the Corn Disease Working Group of APS, is an Associate Editor for Plant Disease, and is the North Central Representative for the national Barley Improvement Committee. He won the 2017 American Society of Agronomy Award for Extension Education Community Educational Materials (Field Guide to Sustainable Production of High-quality Durum Wheat in North Dakota). Gudmestad was panel manager for a USDA-NIFA Specialty Crops grant panel. Khan is the vice-chair for the Chemical Control Committee of APS. Knodel was member of three committees for the 8th International IPM Symposium in Salt Lake City, Utah. These were: Steering Committee, Awards Committee and Media/Outreach Committee. Liu served on the NIFA panel for Predoctoral and Postdoctoral Fellowships. He was chair of the APS Host Genetics Committee and immediate past-chair of the APS Molecular and Cellular Phytopathology Committee. He organized and led a special topics session at the 2017 annual meeting of APS. Pasche was an Associate Editor for Plant Disease and was a member of the Scientific Organizing Committee for the 7th International Legume Root Disease Workshop. Yan was chair of North Central-1197 Nematology Committee. Rasmussen was president of the North Central Division of APS. Secor chaired the APS Editorial Board project, “Focus on Potato” and co-chaired the Local Arrangements Committee for the 2017 Potato Association of America meeting held in Fargo. Zhong was a member of four APS committees (Genetics, Mycology, Host Resistance, and Molecular and Cellular Phytopathology).

B. Department Goals and Priorities for the past year, including narrative about progress toward those goals. The department maintained a high-level of graduate students, which is critical to the health of the department; approximately ½ are Ph.D. students. Faculty did an excellent job meeting the research and outreach needs of the stakeholders. The departmental front office struggled but met increasing workloads despite being down 1.5 office staff FTEs.

C. Department Challenges for the past year, including narrative on how those are being addressed. The departmental front office is down 1.5 FTE because of budget constraints and a hiring freeze and is struggling to keep up with work during certain periods. The faculty are down 2.0 FTE, including wheat rust pathology, a position critical to assisting NDSU wheat breeding efforts and helping the department serve the state with regards to leaf, stem and stripe rust diseases. Rasmussen and Friskop are attempting to fill the void in wheat rust research.
DEPARTMENT OF PLANT SCIENCES

A. Significant departmental achievements in research, teaching and outreach during the past year.

(a) Teaching
Five faculty members have or are currently participating in the two-year commitment of the Gateways-ND multi-million dollar grant to help transform STEM teaching and student learning at NDSU. In addition, almost all faculty have incorporated the “Student Success Collaborative” program to assist with advising and retention of undergraduate students.

(b) Research/Scholarly/Creative Activities
In 2017, 29% of North Dakota’s spring wheat acreage was sown to varieties developed at NDSU. The cash value of the 2016 spring wheat crop, according to NASS estimates, was over $1.1 billion. According to NDSU UDP Dr. William Wilson, a variety released from the NDSU spring wheat breeding program has an estimated economic impact to the state ranging from $69 to $284 million beyond other competitive varieties, over the period it remains in the marketplace.

| Peer Reviewed Publications (published or accepted) | 122 |
| National or International Invited Presentations | 134 |
| Research Grants and Contracts (number that are active) | 161 |
| Cumulative Amount (total value of active grants and contracts): | $6,435,426 |

(c) Extension/Outreach
The well-known annual NDSU Extension educational series called Getting It Right in Soybean Production focuses on providing research based soybean education. In 2017, participants estimated the value of the new knowledge they gained if it was implemented on their farm at $11.58 per acre. The 153 attending growers collectively are farming a total of 116 thousand acres. The total estimated perceived value of this meeting series would be $1.3 million. Efficient utilization of farming inputs into soybean production will benefit growers, society, and the environment.

(d) Service
  d) Dr. Richard Zollinger was named a Fellow of the Weed Science Society of America.
  e) Dr. Harlene Hatterman-Valenti was named the recipient of the Chamber of Commerce North Dakota State University Distinguished Faculty Service Award.
  f) A paper authored by Dr. Greta Gramig was selected as the Outstanding Paper in Weed Science by the Weed Science Society of America.
  g) Dr. Joel Ransom received the President’s Volunteer Service Award for his work in Senegal.
  h) Dr. Juan Osorno received the Early Career Grain Legume Scientist Award at the 2017 Feed the Future Legume Innovation Lab Legume Research Conference in Burkina Faso.
B. Department goals and priorities for the past year, including narrative about progress toward those goals.

Preliminary discussions were held with faculty in the Horticulture and Food Science area about a new major or option based on sustainable local food systems. It was decided that the focus at this time should be working with the Student Affairs office recruiter to provide information about the Horticulture and Food Sciences programs, especially in the Twin Cities.

Currently, we have no one assigned to teach PLSC 727 (Crop Breeding Techniques), PLSC 734 (Field Design II) and PLSC 785 (Plant Breeding Program Management). One of the solutions we are discussing is to have a two-week intensive course (4-6 hours per day) in early June that would include topics taught in PLSC 727, 734 and PLSC 785. Having a course over a two-week period would allow us to bring in guest lecturers from private industry to teach some topics.

C. Department challenges for the past year, including narrative on how those are being addressed.

The research and teaching facilities in Harris Hall continue to be in disrepair and it is not cost-effective to make most repairs or renovations. A new durum wheat mill was purchased, but it cannot be moved into the building without dismantling a doorframe and wall. Ash and odor from the ash ovens are taken up by the ventilation system and deposited throughout the building. Water-flow into some labs has not worked since 2002, making the labs unusable. Additionally, piping is not present to carry distilled water to labs, so it is delivered with buckets from the still in the 3rd-floor men’s restroom.

D. Department goals and priorities for the coming year.

a. Continue to work with the breeding and genetics group in the department to update the curriculum and teaching assignments.

b. Work to increase enrollment in the Horticulture and Food Science programs.

c. Work with the breeding pipeline manager and breeders to bring modern data management methods to the department’s breeding programs.
A. Significant Departmental achievements during the past year

a. Teaching:
The major teaching objectives pursued in 2018 were to (i) improve enrollments and (ii) help students develop disciplinary and fundamental skills.

For enrollment, faculty participated in recruitment activities and more attention was placed on instructional quality of introductory courses (e.g. SOIL 210). As a result, student credit hours increased in academic year 2016-2017, and our total undergraduate majors increased from 96 to 103, despite having the second highest degrees conferred in 2017. Also, the number of Soils minors increased 3× from 12 in 2011-2012 to 36 in 2016-2017.

To date, learning outcomes (e.g. plant ID, interpreting soil tests) have been developed for all SNRS undergraduate degrees. The next step is to develop learning outcomes that develop fundamental skills (e.g. written/oral communication, critical thinking). Eventually, cross-listed course will be created to impart these fundamental skills to serve all SNRS degrees.

b. Research/Scholarly/Creative Activities:
Across the disciplines of the SNRS increases continue in scholarship productivity, interdisciplinary research interactions, and in demonstrating the importance of our research to ND agriculture and natural resources.

More articles were published in peer-reviewed journals in 2017 than in any previous year. Web of Science reported 66 indexed publications and Scopus reported 71, a respective increase of 106% and 120% since 2011. Also, citation metrics (h-index = 18 since 2011) indicates this research is making excellent impact.

Collaborations across the School’s disciplines are now very common. In 2017, seventeen of the peer-reviewed publications were co-authored by two or more SNRS faculty. Projects on pollinators, brine spills, wetlands, and oil/coal land reclamation have been very instrumental in bringing faculty together from across the School’s disciplines.

Granting activities remained at a very high level in 2017, and was highlighted by major federal grants (e.g. $1 M USDA-CIG, USDA-AFRI). There was a slight increase (4%) in the amount of active grants, which was $8,767,417. The expenditures ($1,920,271) from these grants was similar to the two previous years. Federal funding was the largest source of funds ($3.4M) followed by state ($2.9M), commodity groups ($1.2M), and private companies ($1.1M).

The research of the School has increasingly demonstrated an importance to the agriculture and natural resources of ND. The soybean council was very supportive of research in areas of iron deficiency chlorosis, tillage, salinity, water management (from drought to drainage), fertility, and soil health. The corn council supported research on soil health, salinity, tillage, and fertility. Support from the sugarbeet industry provided funds for fertility and pest management, while wheat supported research on soil health and fertility.

c. Extension/Outreach:
Extension of the School has become very visible throughout the state, and has greatly increased the reputation of the School and NDSU. In 2017, the issues of drought and livestock management, soil health and fertility, and insect pest management were of major importance. School Extension faculty were frequently asked to provide interviews (76 total) for newspaper, radio, and television, indicating the high value and integrity placed on the information delivered.

Extension faculty have also been highly innovative and successful in delivering content. These
Innovations include highly-focused, personal communications that require a large amount of time. For example, Dr. Wick provided seven Café Talks, with 70 hours of face-to-face contact with 285 farmers and crop advisors. Also, Dr. Boetel provided three winter workshops to over 400 attendees on the control of crop pests. Innovations also included the use of non-traditional methods that contain low amounts of content but are disseminated broadly and cover many topics. Examples include the creation of short videos like the eleven Soil Health Minutes viewed by thousands. Another example is Dr. Wick’s Twitter account that has gained 4525 followers and generated 4951 tweets. Dr. Boetel has been highly innovative in his approach to manage sugarbeet pests. Working with NDAWN, Dr. Boetel helped develop a root maggot model, and together with his other programmatic approaches, helped decrease infestation by 63% in 2017.

d. Service:

Boetel attended National Extension Leadership Development training workshop. Franzen was presented the Award of Excellence in Extension Publications by American Society of Agronomy. He was also provided the No-Till Innovator Award in Research and Extension from the National No-Till Association. Cihacek was given the Outstanding Service Award from the Soil and Water Conservation Society. Hargiss was given NDSU Peltier Innovation in Teaching Award. Limb won the Distinguished Service Award for Research & Development Program of the Lignite Energy Council. Norland was provided the Outstanding Reviewer Rangeland Ecology & Management, Elsevier Publishing. Voldseth won the International IPM Award of Excellence from the International IPM Symposium. She also received the NACTA Teaching Award of Merit from the North American Colleges and Teachers of Agriculture.

B. Department Goals and Priorities for the past year and progress toward those goals.

We made significant progress for our goals in enrollments and policy. The enrollments and number of minors improved as indicated above in the teaching section. Also, we revised PTE policy to conform with NDSU and CAFSNR policy.

C. Department Challenges for the past year and how those are being addressed.

Two allotments and budget reduction had the greatest impacted on the School’s staff in 2017. Research specialist were moved to 25% soft money support, diverting grant funds from other purposes (e.g. graduate assistantships). Also lost were 2 FTE research specialists and 2.75 FTE administrative support staff. Currently there are only 2.75 staff that provide administrative support for the entire SNRS, which is a lopsided ratio of about 1:9 staff to faculty. Budget reductions also resulted in the Soil and Water testing laboratory transitioning this lab to be entirely self-supporting.

D. Department Goals and Priorities for the Coming Year

1. Revise BS curriculums to serve our mission more effectively, while improving student outcomes and faculty efficiencies. Develop/revise current course that can be cross-listed to serve all BS degrees of the SNRS and impart fundamental skills to our students.

2. Assess our current research resources and look at creative ways to encourage innovations that address the research priorities of our School.

3. Cultivate a continuum of Research <=> Education <=> Extension. Encourage innovative activities that integrate extension and research through graduate education and teaching.
Veterinary Diagnostic Laboratory Report

A. Significant Departmental achievements in research, teaching and outreach during the past year
   a. Teaching
      • Dr. Dyer taught ANSC 370, a 3 credit course with an enrollment of 100.
      • Dr. Newel gave guest lectures in VETS 256 in the veterinary technology program to introduce students to gross pathology and diagnostic laboratory procedures.
   b. Research/Scholarly/Creative Activities
      • Last year VDL faculty secured grants totaling $163,192 which involved a variety of research projects and cooperative agreements.
      • One book chapter and five refereed articles were published.
   c. Extension/Outreach
      Dr. Webb presented at the NDVMA annual meeting
   d. Service
      • The laboratory processed 13,180 accessions and completed more than 75,000 tests.

B. Department Goals and Priorities for the past year, including narrative about progress toward those goals.
   1) Achieve full accreditation for all species (5-year accreditation) following the June 2017 AAVLD audit (The laboratory has previously only received provisional accreditation following AAVLD audits.) The laboratory received full accreditation for 5 years pending acceptable responses to nonconformances. The Response was submitted early summer 2018.
   2) Plan and execute relocation to the new facility without causing significant delays in testing and loss of clients. Relocating laboratory operations was uneventful and completed without significant delays in test turnaround. The majority of tests did not have any delays while other were delayed 1-2 days. No client complaints were received.
   3) Identify a mechanism to fund an additional station specialist (Pathologist who will supervise microbiology section laboratories) A mechanism to partially fund this position was identified and an individual was hired in 2018.
   4) Continue to address growth of laboratory accessions by focused investments in IT resources to increasing efficiency, automates processes and lessen the need for hiring additional staff. Some progress was made on this goal last year through implementation of companion applications and high throughput scanning in the accessioning area. Additional work including employing a document management system is planned for 2018.

C. Department Challenges for the past year, including narrative on how those are being addressed.
   1) The most significant challenge, which continues, was assuming operating and maintenance costs for the new facility. Despite aggressive fee increases it has been difficult for the laboratory to produce enough income to cover the increase costs.
   2) A significant amount of time was spend correcting new facility issues, warranty problems and completing contractor punch list items. This has lessen with time.
3) The case load of the laboratory continues to increase every year. While focused investments in IT infrastructure have lessened this burden, the addition of laboratory staff has not kept up with the rate of growth. Additional staff will likely have to be added soon.

D. Department Goals and Priorities for the Coming Year
   1) Continues to look for alternative funding mechanisms for salaries and operational cost.
   2) Diversify testing portfolio
   3) Continue to address growth of laboratory accessions by focused investments in IT resources to increasing efficiency, automates processes and lessen the need for hiring additional staff.
## Spring 2017

### ABEN

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>263</td>
<td>Biological Materials Processing</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Wiesenborn, Dennis P.</td>
</tr>
<tr>
<td>377</td>
<td>Numerical Modeling/Aben</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>444</td>
<td>Transport Processes</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>464</td>
<td>Resource Conserv/Irrigation Engine</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>Steele, Dean D.</td>
</tr>
<tr>
<td>478</td>
<td>Machinery Analysis &amp; Design</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>482</td>
<td>Instrumentation &amp; Measurements</td>
<td>1</td>
<td>3</td>
<td>19</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>1</td>
<td>26</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>644</td>
<td>Transport Processes</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>664</td>
<td>Resource Conserv/Irrigation Engine</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>Steele, Dean D.</td>
</tr>
<tr>
<td>678</td>
<td>Machinery Analysis &amp; Design</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>682</td>
<td>Instrumentation &amp; Measurements</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>758</td>
<td>Appl Computer Imag/Sens/Biosys</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Rahman, Shafiqur</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Wiesenborn, Dennis P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>Jia, Xinhua</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>Bajwa, Sreekala</td>
</tr>
</tbody>
</table>

### AGEC

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>244</td>
<td>Agricultural Marketing</td>
<td>1</td>
<td>3</td>
<td>171</td>
<td>Englund, David</td>
</tr>
<tr>
<td>246</td>
<td>Intro/Agricultural Finance</td>
<td>1</td>
<td>3</td>
<td>155</td>
<td>Wachenheim, Cheryl J.</td>
</tr>
<tr>
<td>339</td>
<td>Quant Methods &amp; Decision Making</td>
<td>1</td>
<td>3</td>
<td>29</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>344</td>
<td>Agricultural Price Analysis</td>
<td>1</td>
<td>3</td>
<td>52</td>
<td>Miljkovic, Dragan</td>
</tr>
<tr>
<td>346</td>
<td>Applied Risk Analysis</td>
<td>1</td>
<td>3</td>
<td>51</td>
<td>Shaik, Saleem</td>
</tr>
<tr>
<td>350</td>
<td>Agrisales</td>
<td>1</td>
<td>3</td>
<td>113</td>
<td>Wachenheim, Cheryl J.</td>
</tr>
<tr>
<td>356</td>
<td>Advanced Ag Lending</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Hanson, Erik</td>
</tr>
<tr>
<td>371</td>
<td>Export Management</td>
<td>1</td>
<td>3</td>
<td>24</td>
<td>Wahl, Thomas I.</td>
</tr>
<tr>
<td>375</td>
<td>Applied Agricultural Law</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>397</td>
<td>Fe/Coop Ed/Internship</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>420</td>
<td>Integrated Farm/Ranch Management</td>
<td></td>
<td></td>
<td></td>
<td>Hanson, Erik</td>
</tr>
<tr>
<td>451</td>
<td>Natl Agrimrkgt Assoc(NAMA)II</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>Englund, David</td>
</tr>
<tr>
<td>451</td>
<td>Natl Agrimrkgt Assoc(NAMA)II</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>Wahl, Thomas I.</td>
</tr>
<tr>
<td>452</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>474</td>
<td>Cooperatives</td>
<td>1</td>
<td>3</td>
<td>41</td>
<td>Olson, Frayne E.</td>
</tr>
<tr>
<td>484</td>
<td>Agricultural Policy</td>
<td>1</td>
<td>3</td>
<td>61</td>
<td>Sharma, Anupa</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>1</td>
<td></td>
<td>30</td>
<td>Wilson, William W.</td>
</tr>
<tr>
<td>499</td>
<td>Special Topics</td>
<td>1</td>
<td></td>
<td>13</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>499</td>
<td>Special Topics</td>
<td>1</td>
<td></td>
<td>13</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>652</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>712</td>
<td>Applied Risk Analysis II</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>739</td>
<td>Analytical Methods/Applied Eco</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>Shaik, Saleem</td>
</tr>
<tr>
<td>744</td>
<td>Agribus I:Ag Pr Mktg/Agribus S</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Wahl, Thomas I.</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Olson, Frayne E.</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>2</td>
<td></td>
<td>1</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td></td>
<td>15</td>
<td>Nganje PhD, William</td>
</tr>
</tbody>
</table>

### AGRI - Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td></td>
<td>21</td>
<td>Buchanan, David S.</td>
</tr>
</tbody>
</table>

### ANSC - Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>Intro/Animal Sciences - Lecture &amp; Lab</td>
<td>1</td>
<td>3</td>
<td>33</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences - Lecture &amp; Lab</td>
<td>2</td>
<td>3</td>
<td>36</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences - Lecture &amp; Lab</td>
<td>3</td>
<td>3</td>
<td>33</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>196</td>
<td>Field Experience</td>
<td>1</td>
<td></td>
<td>68</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>220</td>
<td>Livestock Production</td>
<td>1</td>
<td>3</td>
<td>46</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>220</td>
<td>Livestock Production</td>
<td></td>
<td>3</td>
<td>50</td>
<td>Stokka, Gerald L.</td>
</tr>
<tr>
<td>223</td>
<td>Intro to Animal Nutrition</td>
<td>1</td>
<td>2</td>
<td>99</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>240</td>
<td>Meat Animal Eval &amp; Marketing</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>240</td>
<td>Meat Animal Eval &amp; Marketing</td>
<td>2</td>
<td>3</td>
<td>29</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>260</td>
<td>Introduction/Equine Studies</td>
<td>1</td>
<td>2</td>
<td>19</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>261</td>
<td>Basic Equitation/Horsemanship</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>Eck, Tate D.</td>
</tr>
<tr>
<td>261</td>
<td>Basic Equitation/Horsemanship</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>Eck, Tate D.</td>
</tr>
<tr>
<td>310</td>
<td>Prin. Therap. Horsemanship Inst.</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>314</td>
<td>Animal Biotechnology</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>Grazul-Bilska, Anna</td>
</tr>
<tr>
<td>324</td>
<td>Applied Animal Nutrition</td>
<td>1</td>
<td>3</td>
<td>30</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>324</td>
<td>Applied Animal Nutrition</td>
<td>2</td>
<td>3</td>
<td>30</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>324</td>
<td>Applied Animal Nutrition</td>
<td>3</td>
<td>3</td>
<td>27</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>330</td>
<td>Competitive Meat Grading/Eval</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Hours</td>
<td>Instructor</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>331</td>
<td>Meat Animal Evaluation Team</td>
<td>1</td>
<td>6</td>
<td>Hoffman, Travis</td>
<td></td>
</tr>
<tr>
<td>340</td>
<td>Principles of Meat Science</td>
<td>1</td>
<td>3</td>
<td>25 Carlin, Kasey R.</td>
<td></td>
</tr>
<tr>
<td>340</td>
<td>Principles of Meat Science</td>
<td>2</td>
<td>3</td>
<td>26 Carlin, Kasey R.</td>
<td></td>
</tr>
<tr>
<td>357</td>
<td>Animal Genetics</td>
<td>1</td>
<td>3</td>
<td>24 Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>357</td>
<td>Animal Genetics</td>
<td>2</td>
<td>3</td>
<td>14 Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>357</td>
<td>Animal Genetics</td>
<td>3</td>
<td>3</td>
<td>22 Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>358</td>
<td>Equine Genetics</td>
<td>1</td>
<td>2</td>
<td>17 Buchanan, David S.</td>
<td></td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>2</td>
<td>1</td>
<td>6 Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>3</td>
<td>1</td>
<td>5 Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>362</td>
<td>Colts in Training</td>
<td>1</td>
<td>2</td>
<td>8 Eck, Tate D.</td>
<td></td>
</tr>
<tr>
<td>364</td>
<td>Equine Anatomy/Physiology</td>
<td>1</td>
<td>3</td>
<td>30 Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>13</td>
<td>1</td>
<td>1 Hoffman, Travis</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>20</td>
<td>1</td>
<td>1 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>21</td>
<td>1</td>
<td>1 Wagner, Sarah A.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>2</td>
<td>1</td>
<td>0 Berg, Eric P.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>3</td>
<td>0</td>
<td>0 Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>7</td>
<td>2</td>
<td>2 Grazul-Bilska, Anna</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>8</td>
<td>1</td>
<td>1 Hammer, Carolyn</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>9</td>
<td>1</td>
<td>1 Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>396</td>
<td>Field Experience</td>
<td>1</td>
<td>7</td>
<td>1 Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>410</td>
<td>Therap. Horsemshp. Practicum</td>
<td>1</td>
<td>1</td>
<td>1 Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>461</td>
<td>Adv Horsemanship/Equitation</td>
<td>1</td>
<td>6</td>
<td>1 Eck, Tate D.</td>
<td></td>
</tr>
<tr>
<td>463</td>
<td>Physiology of Reproduction</td>
<td>1</td>
<td>3</td>
<td>101 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>463L</td>
<td>Physiology of Reproduction/Lab</td>
<td>1</td>
<td>1</td>
<td>1 24 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>463L</td>
<td>Physiology of Reproduction/Lab</td>
<td>2</td>
<td>1</td>
<td>1 24 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>463L</td>
<td>Physiology of Reproduction/Lab</td>
<td>3</td>
<td>1</td>
<td>1 21 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>463L</td>
<td>Physiology of Reproduction/Lab</td>
<td>4</td>
<td>1</td>
<td>1 21 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>478</td>
<td>Research/Issues in Animal Ag</td>
<td>1</td>
<td>3</td>
<td>44 Swanson, Kendall C.</td>
<td></td>
</tr>
<tr>
<td>480</td>
<td>Equine Industry and Production</td>
<td>1</td>
<td>3</td>
<td>28 Hammer, Carolyn</td>
<td></td>
</tr>
<tr>
<td>486</td>
<td>Beef Industry/Production Syst</td>
<td>1</td>
<td>3</td>
<td>23 Lardy, Greg</td>
<td></td>
</tr>
<tr>
<td>486</td>
<td>Beef industry/Production Systems</td>
<td></td>
<td>16</td>
<td>Stokka, Gerald L.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td>1 Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>2</td>
<td>1</td>
<td>1 Eck, Tate D.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>3</td>
<td>1</td>
<td>1 Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>5</td>
<td>10</td>
<td>1 Berg, Eric P.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>6</td>
<td>6</td>
<td>1 Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>108</td>
<td>1 Berg, Eric P.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>3</td>
<td>23</td>
<td>1 Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>4</td>
<td>25</td>
<td>1 Eck, Tate D.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>8</td>
<td>3</td>
<td>1 Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>663</td>
<td>Physiology of Reproduction</td>
<td>1</td>
<td>3</td>
<td>4 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>773</td>
<td>Energy Metabolism</td>
<td>1</td>
<td>3</td>
<td>5 Swanson, Kendall C.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>16</td>
<td>1 Stokka, Gerald L.</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>11</td>
<td>1</td>
<td>1 Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>14</td>
<td>2</td>
<td>1 Lardy, Greg</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>5</td>
<td>3</td>
<td>1 Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>6</td>
<td>2</td>
<td>1 Carlin, Kasey R.</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>8</td>
<td>2</td>
<td>1 Bauer, Marc L.</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>2</td>
<td>0</td>
<td>1 Borowicz, Pawel</td>
<td></td>
</tr>
</tbody>
</table>
### ASM Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>Fabrication &amp; Constr Technol</td>
<td>1</td>
<td>3</td>
<td>16</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>264</td>
<td>Natural Resource Mgmt Systems</td>
<td>1</td>
<td>3</td>
<td>42</td>
<td>Jia, Xinhua</td>
</tr>
<tr>
<td>264L</td>
<td>Natural Res Mgmt Systems Lab</td>
<td>1</td>
<td>1</td>
<td>24</td>
<td>Jia, Xinhua</td>
</tr>
<tr>
<td>373</td>
<td>Tractors &amp; Power Units</td>
<td>1</td>
<td>3</td>
<td>48</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>374</td>
<td>Power Units Laboratory</td>
<td>1</td>
<td>1</td>
<td>17</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>374</td>
<td>Power Units Laboratory</td>
<td>2</td>
<td>1</td>
<td>18</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>469</td>
<td>Landscape Irrig Install &amp; Mgt</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>475</td>
<td>Management/Agricultural Syst</td>
<td>2</td>
<td>2</td>
<td>26</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>2</td>
<td>26</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>675</td>
<td>Management/Agricultural Syst</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Simsek, Halis</td>
</tr>
</tbody>
</table>

### BIOL Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>315</td>
<td>Genetics</td>
<td>1</td>
<td>3</td>
<td>42</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>2</td>
<td>3</td>
<td>44</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>2</td>
<td>1</td>
<td>11</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>3</td>
<td>1</td>
<td>12</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>5</td>
<td>1</td>
<td>11</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td>Christoffers, Michael J.</td>
</tr>
</tbody>
</table>

### BOT Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>2</td>
<td>3</td>
<td>10</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>450</td>
<td>Range Plants</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>McGranahan, Devan A.</td>
</tr>
<tr>
<td>650</td>
<td>Range Plants</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>McGranahan, Devan A.</td>
</tr>
</tbody>
</table>

### BUSN Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>474</td>
<td>Cooperatives</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>Olson, Frayne E.</td>
</tr>
<tr>
<td>674</td>
<td>Cooperatives</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Olson, Frayne E.</td>
</tr>
</tbody>
</table>

### CFS Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Intro/Food Systems</td>
<td>1</td>
<td>3</td>
<td>33</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>452</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>464</td>
<td>Food Analysis</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>470</td>
<td>Food Processing II</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>471</td>
<td>Food Processing Laboratory</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>472</td>
<td>Cereal and Food Fermentation</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>480</td>
<td>Food Product Development</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>Rao, Jiajia</td>
</tr>
<tr>
<td>652</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>664</td>
<td>Food Analysis</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>670</td>
<td>Food Processing II</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>671</td>
<td>Food Processing Laboratory</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>672</td>
<td>Cereal and Food Fermentation</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>680</td>
<td>Food Product Development</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Rao, Jiajia</td>
</tr>
<tr>
<td>760</td>
<td>Pasta Processing</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>764</td>
<td>Carbohydrate Chemistry</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>Simsek, Senay</td>
</tr>
<tr>
<td>766</td>
<td>Adv Cereal/Food Chemistry II</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>766</td>
<td>Adv Cereal/Food Chemistry II</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>766</td>
<td>Adv Cereal/Food Chemistry II</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>Simsek, Senay</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>794</td>
<td>Practicum/Internship</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>Horsley, Richard</td>
</tr>
</tbody>
</table>

### ECON Spring 2017

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>Elements of Economics</td>
<td>1</td>
<td>3</td>
<td>220</td>
<td>Englund, David</td>
</tr>
<tr>
<td>105</td>
<td>Elements of Economics</td>
<td>2</td>
<td>3</td>
<td>42</td>
<td>Machunda, Zachary</td>
</tr>
<tr>
<td>201</td>
<td>Principles of Microeconomics</td>
<td>1</td>
<td>3</td>
<td>172</td>
<td>Machunda, Zachary</td>
</tr>
</tbody>
</table>
### ECS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>23</td>
<td>1</td>
<td>1</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>17</td>
<td>1</td>
<td>1</td>
<td>Ripplinger, David G.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>Rahman, Shafiqur</td>
</tr>
</tbody>
</table>

### ENGR

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Engineering Ethics/Social Resp</td>
<td>1</td>
<td>1</td>
<td>48</td>
<td>Bon, Thomas A.</td>
</tr>
</tbody>
</table>

### ENT

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>431</td>
<td>Principles/Insect Pest Mgt</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Voldseth, Deirdre A.</td>
</tr>
<tr>
<td>470</td>
<td>Insect Ecology</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>631</td>
<td>Principles/Insect Pest Mgt</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Voldseth, Deirdre A.</td>
</tr>
<tr>
<td>670</td>
<td>Insect Ecology</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>795</td>
<td>Field Experience</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Knodel, Janet J.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Foster, Stephen P.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>Voldseth, Deirdre A.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>Rider, David A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Boetel Ph.D., Mark A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>Rider, David A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>Knodel, Janet J.</td>
</tr>
</tbody>
</table>

### HNES

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>2</td>
<td>1</td>
<td>14</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>3</td>
<td>1</td>
<td>15</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>Gustad, Thomas R.</td>
</tr>
</tbody>
</table>

### MICR

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
</table>

---

**Spring 2017**

---
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Introductory Microbiology</td>
<td>1</td>
<td>2</td>
<td>348</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>202</td>
<td>Introductory Microbiology</td>
<td>2</td>
<td>2</td>
<td>42</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>202L</td>
<td>Introductory Microbiology Lab</td>
<td>3</td>
<td>1</td>
<td>24</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>202L</td>
<td>Introductory Microbiology Lab</td>
<td>4</td>
<td>1</td>
<td>24</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>294</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>352</td>
<td>General Microbiology II</td>
<td>1</td>
<td>3</td>
<td>35</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>352L</td>
<td>General Microbiology Lab II</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>352L</td>
<td>General Microbiology Lab II</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>352L</td>
<td>General Microbiology Lab II</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>445</td>
<td>Animal Cell Culture Techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>445</td>
<td>Animal Cell Culture Techniques</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>445</td>
<td>Animal Cell Culture Techniques</td>
<td>3</td>
<td>2</td>
<td>9</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>445</td>
<td>Animal Cell Culture Techniques</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>445</td>
<td>Animal Cell Culture Techniques</td>
<td>5</td>
<td>2</td>
<td>11</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>460</td>
<td>Pathogenic Microbiology</td>
<td>1</td>
<td>3</td>
<td>135</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>460</td>
<td>Pathogenic Microbiology</td>
<td>2</td>
<td>3</td>
<td>24</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>463</td>
<td>Clinical Parasitology</td>
<td>1</td>
<td>2</td>
<td>42</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>480</td>
<td>Bacterial Physiology</td>
<td>1</td>
<td>3</td>
<td>34</td>
<td>Pruess, Birgit</td>
</tr>
<tr>
<td>481</td>
<td>Microbial Genomics</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>486</td>
<td>Capstone Exp/Microbiology</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>2</td>
<td>7</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>14</td>
<td>2</td>
<td></td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>16</td>
<td>3</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>17</td>
<td>2</td>
<td></td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>18</td>
<td>1</td>
<td></td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>19</td>
<td>1</td>
<td></td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>3</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>2</td>
<td>1</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>4</td>
<td>0</td>
<td></td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>6</td>
<td>1</td>
<td></td>
<td>Gibbs, Penelope S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>8</td>
<td>4</td>
<td></td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>645</td>
<td>Animal Cell Culture Tech</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>660</td>
<td>Pathogenic Microbiology</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>680</td>
<td>Bacterial Physiology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Pruess, Birgit</td>
</tr>
<tr>
<td>681</td>
<td>Microbial Genomics</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>14</td>
<td></td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>264</td>
<td>Natural Resource Mgmt Systems</td>
<td>1</td>
<td>3</td>
<td>29</td>
<td>Jia, Xinhua</td>
</tr>
<tr>
<td>402</td>
<td>River &amp; Stream Resource Mgmt</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>421</td>
<td>Environmental Outreach Methods</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>453</td>
<td>Rangeland Resource/Watershed M</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>462</td>
<td>NRM/Range Planning</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>602</td>
<td>River &amp; Stream Resource Mgmt</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>621</td>
<td>Environmental Outreach Methods</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>653</td>
<td>Rangeland Resource/Watershed M</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>653</td>
<td>Rangeland Resource/Watershed M</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>662</td>
<td>NRM/Range Planning</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>2</td>
<td></td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>2</td>
<td>1</td>
<td></td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>1</td>
<td>1</td>
<td></td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>3</td>
<td>1</td>
<td></td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>3</td>
<td></td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>2</td>
<td>3</td>
<td></td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>3</td>
<td>1</td>
<td></td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>4</td>
<td>3</td>
<td></td>
<td>Sedivec, Kevin K.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td></td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>3</td>
<td></td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>1</td>
<td></td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>4</td>
<td>1</td>
<td></td>
<td>Meehan, Miranda A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>5</td>
<td>1</td>
<td></td>
<td>Roberts, David</td>
</tr>
</tbody>
</table>

**PLSC**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>2</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>3</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Units</td>
<td>Section</td>
<td>Instructor</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>4</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>5</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>6</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>7</td>
<td>3</td>
<td>20</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>111</td>
<td>Genetics and You</td>
<td>1</td>
<td>2</td>
<td>43</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>200</td>
<td>Career Prep. in Plant Sciences</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>2</td>
<td>3</td>
<td>21</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>3</td>
<td>3</td>
<td>24</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>4</td>
<td>3</td>
<td>24</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>5</td>
<td>3</td>
<td>21</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>225</td>
<td>Principles of Crop Production</td>
<td>6</td>
<td>3</td>
<td>22</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>312</td>
<td>Expand Learning with Service</td>
<td>1</td>
<td>1</td>
<td>78</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>1</td>
<td>3</td>
<td>54</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>2</td>
<td>3</td>
<td>55</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>2</td>
<td>1</td>
<td>12</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>3</td>
<td>1</td>
<td>17</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>4</td>
<td>1</td>
<td>16</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>5</td>
<td>1</td>
<td>12</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>6</td>
<td>1</td>
<td>12</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>323</td>
<td>Principles of Weed Science</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>323</td>
<td>Principles of Weed Science</td>
<td>2</td>
<td>3</td>
<td>23</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>323</td>
<td>Principles of Weed Science</td>
<td>3</td>
<td>3</td>
<td>21</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>323</td>
<td>Principles of Weed Science</td>
<td>4</td>
<td>3</td>
<td>19</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>323</td>
<td>Principles of Weed Science</td>
<td>5</td>
<td>3</td>
<td>19</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>340</td>
<td>Grain Grading</td>
<td>1</td>
<td>2</td>
<td>23</td>
<td>McMullen, Michael S.</td>
</tr>
<tr>
<td>341</td>
<td>Landscape Bid./Contract./Oper.</td>
<td>1</td>
<td>2</td>
<td>15</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>368</td>
<td>Plant Propagation</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>412</td>
<td>Nursery Production/Management</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Dai, David</td>
</tr>
<tr>
<td>415</td>
<td>Vegetable Crop Production</td>
<td>1</td>
<td>2</td>
<td>14</td>
<td>Thompson, Asunta L.</td>
</tr>
<tr>
<td>455</td>
<td>Cropping Systems:IntegratedAp</td>
<td>1</td>
<td>3</td>
<td>79</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>457</td>
<td>Hort and Turfgrass Systems</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>469</td>
<td>Landscape Irrig Install &amp; Mgt</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>486</td>
<td>Applied Crop Physiology</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Zhang, Qi</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>1</td>
<td></td>
<td>11</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>2</td>
<td></td>
<td>15</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>3</td>
<td></td>
<td>14</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>4</td>
<td></td>
<td>11</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>2</td>
<td></td>
<td>1</td>
<td>Johnson, Burton L.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>3</td>
<td></td>
<td>1</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>4</td>
<td></td>
<td>1</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td></td>
<td>0</td>
<td>Hatterman-Valenti, Harlene</td>
</tr>
<tr>
<td>615</td>
<td>Vegetable Crop Production</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>Thompson, Asunta L.</td>
</tr>
<tr>
<td>655</td>
<td>Cropping Systems:IntegratedAp</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>686</td>
<td>Applied Crop Physiology</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Zhang, Qi</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>711</td>
<td>Professional Development II</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>751</td>
<td>Advanced Plant Genetics</td>
<td>1</td>
<td>3</td>
<td>16</td>
<td>Helms, Ted</td>
</tr>
<tr>
<td>763</td>
<td>Laboratory Methods-Weed Sci</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>Lym, Rodney</td>
</tr>
<tr>
<td>776</td>
<td>Advanced Plant Breeding</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>Elias, Elias</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td></td>
<td>10</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td></td>
<td>10</td>
<td>Thompson, Asunta L.</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td></td>
<td>5</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>1</td>
<td></td>
<td>3</td>
<td>McLean, Phillip</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>2</td>
<td></td>
<td>8</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>3</td>
<td></td>
<td>2</td>
<td>West, Todd</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>4</td>
<td></td>
<td>4</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>5</td>
<td></td>
<td>1</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td></td>
<td>60</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td></td>
<td>25</td>
<td>Horsley, Richard</td>
</tr>
</tbody>
</table>

**PPTH**

**Spring 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>455</td>
<td>Plant Disease Management</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Gudmestad, Neil C.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>2</td>
<td></td>
<td>51</td>
<td>Markell, Samuel</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Friskop, Andrew J.</td>
</tr>
<tr>
<td>655</td>
<td>Plant Disease Management</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Gudmestad, Neil C.</td>
</tr>
<tr>
<td>751</td>
<td>Physiology Of Plant Disease</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>Liu, Zhaohui</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td></td>
<td>14</td>
<td>Friskop, Andrew J.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td></td>
<td>14</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>2</td>
<td></td>
<td>17</td>
<td>Friskop, Andrew J.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>2</td>
<td></td>
<td>17</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>3</td>
<td></td>
<td>10</td>
<td>Friskop, Andrew J.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>3</td>
<td></td>
<td>10</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td></td>
<td>14</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td></td>
<td>23</td>
<td>Rasmussen, Jack</td>
</tr>
</tbody>
</table>

**RNG**

**Spring 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>450</td>
<td>Range Plants</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>McGranahan, Devan A.</td>
</tr>
<tr>
<td>452</td>
<td>Geograph Info Sys/Range Survey</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>453</td>
<td>Rangeland Resource/Watershed M</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>462</td>
<td>NRM/Range Planning</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>650</td>
<td>Range Plants</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>McGranahan, Devan A.</td>
</tr>
<tr>
<td>652</td>
<td>Geog Info Sys/Range Survey</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>653</td>
<td>Rangeland Resource/Watershed M</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>716</td>
<td>Agrostology</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Hovick, Torre J.</td>
</tr>
<tr>
<td>716</td>
<td>Agrostology</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Limb, Ryan</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td></td>
<td>1</td>
<td>McGranahan, Devan A.</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Limb, Ryan</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td></td>
<td>2</td>
<td>Sedivec, Kevin K.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>2</td>
<td></td>
<td>1</td>
<td>Limb, Ryan</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>3</td>
<td>4</td>
<td>McGranahan, Devan A.</td>
<td></td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>4</td>
<td>2</td>
<td>Hovick, Torre J.</td>
<td></td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td>Meehan, Miranda A.</td>
<td></td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td>Sedivec, Kevin K.</td>
<td></td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>2</td>
<td>Limb, Ryan</td>
<td></td>
</tr>
</tbody>
</table>

### SAFE

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>Food Safety Info/Flow of Food</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>402</td>
<td>Foodborne Hazards</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>403</td>
<td>Food Safety Risk Assessment</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>404</td>
<td>Epidemiology/Foodborne Illness</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>405</td>
<td>Costs of Food Safety</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>406</td>
<td>Food Safety Crisis Communicat</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>407</td>
<td>Food Safety Risk Management</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>408</td>
<td>Food Safety Regulatory Issues</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>440</td>
<td>HACCP and Food Safety</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>452</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>484</td>
<td>Food Safety Practicum</td>
<td>1</td>
<td>5</td>
<td></td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>601</td>
<td>Food Safety Info/Flow of Food</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>601</td>
<td>Food Safety Info/Flow of Food</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>602</td>
<td>Foodborne Hazards</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>602</td>
<td>Foodborne Hazards</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>603</td>
<td>Food Safety Risk Assessment</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>603</td>
<td>Food Safety Risk Assessment</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>604</td>
<td>Epidemiology/Foodborne Illness</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>604</td>
<td>Epidemiology/Foodborne Illness</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>605</td>
<td>Costs of Food Safety</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>605</td>
<td>Costs of Food Safety</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Nganje PhD, William</td>
</tr>
<tr>
<td>607</td>
<td>Food Safety Risk Management</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>607</td>
<td>Food Safety Risk Management</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>608</td>
<td>Food Safety Regulatory Issues</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>608</td>
<td>Food Safety Regulatory Issues</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>640</td>
<td>HACCP and Food Safety</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>652</td>
<td>Food Laws &amp; Regulations</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Schwarz, Paul B.</td>
</tr>
</tbody>
</table>

### SOIL

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>3</td>
<td>3</td>
<td>14</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>3</td>
<td>3</td>
<td>14</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>4</td>
<td>3</td>
<td>16</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>5</td>
<td>3</td>
<td>15</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>6</td>
<td>3</td>
<td>16</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>7</td>
<td>3</td>
<td>15</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
<td>8</td>
<td>3</td>
<td>16</td>
<td>Brueggeman, Leah</td>
</tr>
<tr>
<td>217</td>
<td>Int/Meteorology &amp; Climatology</td>
<td>1</td>
<td>3</td>
<td>158</td>
<td>Akyuz, Adnan A.</td>
</tr>
<tr>
<td>264</td>
<td>Natural Resource Mgmt Systems</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>Jia, Xinhua</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>322</td>
<td>Soil Fertility &amp; Fertilizers</td>
<td>1</td>
<td>3</td>
<td>89</td>
<td>Chatterjee, Amitava</td>
</tr>
<tr>
<td>410</td>
<td>Soils and Land Use</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>DeSutter, Thomas M.</td>
</tr>
<tr>
<td>462</td>
<td>NRM/Range Planning</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>465</td>
<td>Soil And Plant Analysis</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Cihacek, Larry J.</td>
</tr>
<tr>
<td>610</td>
<td>Soils and Land Use</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>DeSutter, Thomas M.</td>
</tr>
<tr>
<td>662</td>
<td>NRM/Range Planning</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>665</td>
<td>Soil And Plant Analysis</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Cihacek, Larry J.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>Daigh, Aaron L.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>DeSutter, Thomas M.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>Franzen, Dave W.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Goos, R J.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>Chatterjee, Amitava</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Cihacek, Larry J.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>DeSutter, Thomas M.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>Franzen, Dave W.</td>
</tr>
</tbody>
</table>

**VETS Spring 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>Medical Term/Paraprofession</td>
<td>1</td>
<td>1</td>
<td>60</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>255</td>
<td>Fund/Veterinary Radiography</td>
<td>1</td>
<td>2</td>
<td>28</td>
<td>Christenson, Lisa A.</td>
</tr>
<tr>
<td>255L</td>
<td>Fund/Vet Radiography Lab</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Christenson, Lisa A.</td>
</tr>
<tr>
<td>358L</td>
<td>Vets Surgical Nursing Tech Lab</td>
<td>1</td>
<td>2</td>
<td>27</td>
<td>Schrupp, Jordan L.</td>
</tr>
<tr>
<td>359</td>
<td>Vet Hospital Inform/Proced</td>
<td>1</td>
<td>2</td>
<td>28</td>
<td>Schrupp, Jordan L.</td>
</tr>
<tr>
<td>387</td>
<td>Vet Clinical Pathology III</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>387</td>
<td>Vet Clinical Pathology III</td>
<td>2</td>
<td>3</td>
<td>12</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>482</td>
<td>Large Animal Techniques</td>
<td>1</td>
<td>2</td>
<td>21</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>482L</td>
<td>Large Animal Techniques Lab</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>482L</td>
<td>Large Animal Veterinary Technician Lab</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Hammer, Carolyn</td>
</tr>
<tr>
<td>482</td>
<td>Large Animal Veterinary Technician Lab</td>
<td>3</td>
<td></td>
<td></td>
<td>Hammer, Carolyn</td>
</tr>
<tr>
<td>483</td>
<td>Clinical Veterinary Practicum</td>
<td>1</td>
<td></td>
<td>28</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>483</td>
<td>Clinical Veterinary Practicum</td>
<td>2</td>
<td></td>
<td>27</td>
<td>Ostby, Stacey M.</td>
</tr>
</tbody>
</table>

**ZOO Spring 2017**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Section</th>
<th>Credit</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>482</td>
<td>Large Animal Veterinary Technician</td>
<td>3</td>
<td></td>
<td></td>
<td>Hammer, Carolyn</td>
</tr>
<tr>
<td>Number</td>
<td>Hours</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>315</td>
<td>1</td>
<td>Genetics</td>
<td>315</td>
<td>20</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>2</td>
<td>Genetics</td>
<td>315</td>
<td>19</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315</td>
<td>3</td>
<td>Genetics</td>
<td>315</td>
<td>8</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>1</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>9</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>2</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>7</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>3</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>4</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>4</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>5</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>5</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>6</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>315L</td>
<td>6</td>
<td>Genetics Laboratory</td>
<td>315L</td>
<td>10</td>
<td>Christoffers, Michael J.</td>
</tr>
<tr>
<td>463</td>
<td>1</td>
<td>Physiology of Reproduction</td>
<td>463</td>
<td>6</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
<tr>
<td>463L</td>
<td>1</td>
<td>Physiology of ReproductionLab</td>
<td>463L</td>
<td>1</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
<tr>
<td>463L</td>
<td>3</td>
<td>Physiology of ReproductionLab</td>
<td>463L</td>
<td>1</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
<tr>
<td>463L</td>
<td>4</td>
<td>Physiology of ReproductionLab</td>
<td>463L</td>
<td>0</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
<tr>
<td>663</td>
<td>1</td>
<td>Physiology of Reproduction</td>
<td>663</td>
<td>1</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
<tr>
<td>663L</td>
<td>1</td>
<td>Physiology of Reproduction/Lab</td>
<td>663L</td>
<td>1</td>
<td>Vonnahme, Kimberly A.</td>
</tr>
</tbody>
</table>

**Summer 2017**

**ANSC**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>379</td>
<td>Ag and Equine Industry/Ireland</td>
<td>01</td>
<td>17</td>
<td>Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research (Animal Genetics)</td>
<td>9</td>
<td>1</td>
<td>Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>396</td>
<td>Agriculture and the Equine Industry in Ireland</td>
<td>3</td>
<td>4</td>
<td>Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>740</td>
<td>Data Analyses and Design of Experiments</td>
<td>3</td>
<td>4</td>
<td>Hanna, Lauren</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>2</td>
<td>1</td>
<td>Borowicz, Pawel</td>
<td></td>
</tr>
</tbody>
</table>

**ENT**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>798</td>
<td>Master's Thesis (Thesis Research)</td>
<td>5</td>
<td>2</td>
<td>Voldseth, Deirdre A.</td>
<td></td>
</tr>
</tbody>
</table>

**MICR**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Introductory Microbiology</td>
<td>01</td>
<td>13</td>
<td>Gustad, Thomas R.</td>
<td></td>
</tr>
<tr>
<td>202L</td>
<td>Introductory Microbiology Laboratory</td>
<td>01</td>
<td>17</td>
<td>Gustad, Thomas R.</td>
<td></td>
</tr>
</tbody>
</table>

**NRM**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>795</td>
<td>Field Experience</td>
<td>6</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
<td></td>
</tr>
<tr>
<td>795</td>
<td>Field Experience</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
<td></td>
</tr>
<tr>
<td>795</td>
<td>Field Experience</td>
<td>3</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
<td></td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
<td></td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
<td></td>
</tr>
</tbody>
</table>
## Fall 2017

### ABEN

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>255</td>
<td>Comp Aided Analysis/Design</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Steele, Dean D.</td>
</tr>
<tr>
<td>358</td>
<td>Electric Energy Appl'n in Agri</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>458</td>
<td>Process Engr Food &amp; Biofuels</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Wiesenborn, Dennis P.</td>
</tr>
<tr>
<td>473</td>
<td>Agricultural Power</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>479</td>
<td>Fluid Power Systems Design</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>2</td>
<td></td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>658</td>
<td>Process Engr Food &amp; Biofuels</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Wiesenborn, Dennis P.</td>
</tr>
<tr>
<td>679</td>
<td>Fluid Power Systems Design</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Bon, Thomas A.</td>
</tr>
<tr>
<td>765</td>
<td>Small Watershed Hydrol/Modelin</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td>2</td>
<td></td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>2</td>
<td>1</td>
<td></td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td></td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>6</td>
<td>2</td>
<td></td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>7</td>
<td>1</td>
<td></td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>2</td>
<td></td>
<td>Rahman, Shafiqur</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>3</td>
<td>1</td>
<td></td>
<td>Wiesenborn, Dennis P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>4</td>
<td>2</td>
<td></td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>5</td>
<td>1</td>
<td></td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>7</td>
<td>2</td>
<td></td>
<td>Jia, Xinhua</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>8</td>
<td>1</td>
<td></td>
<td>Simsek, Halis</td>
</tr>
</tbody>
</table>

### AGECE

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>242</td>
<td>Intro/Agricultural Management</td>
<td>1</td>
<td>3</td>
<td>206</td>
<td>Hanson, Erik</td>
</tr>
<tr>
<td>339</td>
<td>Quant Methods &amp; Decision Makin</td>
<td>1</td>
<td>3</td>
<td>32</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>339</td>
<td>Quant Methods &amp; Decision Makin</td>
<td>2</td>
<td>3</td>
<td>29</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>342</td>
<td>Farm/Agribusiness Management I</td>
<td>1</td>
<td>3</td>
<td>42</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>347</td>
<td>Principles of Real Estate</td>
<td>1</td>
<td>3</td>
<td>50</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>396</td>
<td>Field Experience</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Roberts, David</td>
</tr>
<tr>
<td>397</td>
<td>Fe/Coop Ed/Internship</td>
<td>1</td>
<td>2</td>
<td></td>
<td>Roberts, David</td>
</tr>
<tr>
<td>444</td>
<td>Commodity Trading</td>
<td>1</td>
<td>3</td>
<td>33</td>
<td>Wilson, William W.</td>
</tr>
<tr>
<td>446</td>
<td>Agribusiness Finance</td>
<td>1</td>
<td>3</td>
<td>27</td>
<td>Hanson, Erik</td>
</tr>
<tr>
<td>450</td>
<td>Nat Agrimarketing Assoc(NAMA)</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>Englund, David</td>
</tr>
<tr>
<td>450</td>
<td>Nat Agrimarketing Assoc(NAMA)</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>Wahl, Thomas I.</td>
</tr>
<tr>
<td>646</td>
<td>Agribusiness Finance</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Hanson, Erik</td>
</tr>
<tr>
<td>652</td>
<td>Food Laws &amp; Regulations</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Saxowsky, David M.</td>
</tr>
<tr>
<td>701</td>
<td>Research Philosophy</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>Wahl, Thomas I.</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>115</td>
<td>Wonders of Weather</td>
<td>1</td>
<td>3</td>
<td>95</td>
<td>Akyuz, Adnan A.</td>
</tr>
<tr>
<td>189</td>
<td>Skills for Academic Success</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>Englund, David</td>
</tr>
<tr>
<td>189</td>
<td>Skills for Academic Success</td>
<td>2</td>
<td>1</td>
<td>22</td>
<td>Englund, David</td>
</tr>
<tr>
<td>189</td>
<td>Skills for Academic Success</td>
<td>5</td>
<td>1</td>
<td>35</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>189</td>
<td>Skills for Academic Success</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>Bergholz, Peter W.</td>
</tr>
</tbody>
</table>

**AGRI**

**Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>1</td>
<td>3</td>
<td>28</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>1</td>
<td>3</td>
<td>28</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>2</td>
<td>3</td>
<td>35</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>3</td>
<td>3</td>
<td>35</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>3</td>
<td>3</td>
<td>35</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>4</td>
<td>3</td>
<td>36</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>4</td>
<td>3</td>
<td>36</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>114</td>
<td>Intro/Animal Sciences</td>
<td>4</td>
<td>3</td>
<td>36</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>150</td>
<td>Animal Science Orientation</td>
<td>1</td>
<td>1</td>
<td>23</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>150</td>
<td>Animal Science Orientation</td>
<td>2</td>
<td>1</td>
<td>56</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>210</td>
<td>Intro, Therap. Horsemanship</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>220</td>
<td>Livestock Production</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>220</td>
<td>Livestock Production</td>
<td>1</td>
<td>3</td>
<td>44</td>
<td>Baranko, Loren L.</td>
</tr>
<tr>
<td>230</td>
<td>Meat Grading &amp; Evaluation</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>230</td>
<td>Meat Grading and Evaluation</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>235</td>
<td>Equine Evaluation</td>
<td>01</td>
<td>2</td>
<td>23</td>
<td>Swanson, Tara J.</td>
</tr>
<tr>
<td>240</td>
<td>Meat Animal Eval &amp; Marketing</td>
<td>1</td>
<td>3</td>
<td>29</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>240</td>
<td>Meat Animal Eval &amp; Marketing</td>
<td>2</td>
<td>3</td>
<td>28</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>240</td>
<td>Meat Animal Eval &amp; Marketing</td>
<td>3</td>
<td>3</td>
<td>57</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>260</td>
<td>Introduction/Equine Studies</td>
<td>01</td>
<td>2</td>
<td>46</td>
<td>Swanson, Tara J.</td>
</tr>
<tr>
<td>260</td>
<td>Introduction/Equine Studies</td>
<td>1</td>
<td>2</td>
<td>46</td>
<td>Swanson, Tara J.</td>
</tr>
<tr>
<td>260L</td>
<td>Equine Care/Management Pract</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>Eck, Tate D.</td>
</tr>
<tr>
<td>261</td>
<td>Basic Equitation/Horsemanship</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>Eck, Tate D.</td>
</tr>
<tr>
<td>261</td>
<td>Basic Equitation/Horsemanship</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>Eck, Tate D.</td>
</tr>
<tr>
<td>296</td>
<td>Field Experience</td>
<td>1</td>
<td>5</td>
<td>Hoffman, Travis</td>
<td></td>
</tr>
<tr>
<td>296</td>
<td>Field Experience</td>
<td>2</td>
<td>25</td>
<td>Maddock, Robert</td>
<td></td>
</tr>
<tr>
<td>296</td>
<td>Field Experience AI School</td>
<td>1</td>
<td>25</td>
<td>Maddock, Robert</td>
<td></td>
</tr>
<tr>
<td>CRN</td>
<td>Course Title</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>300</td>
<td>Domestic Animal Behav &amp; Mgmt</td>
<td>1</td>
<td>3</td>
<td>45</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>300</td>
<td>Domestic Animal Behav &amp; Mgmt</td>
<td>2</td>
<td>3</td>
<td>40</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>323</td>
<td>Fundamentals of Nutrition</td>
<td>1</td>
<td>3</td>
<td>76</td>
<td>Caton, Joel S.</td>
</tr>
<tr>
<td>330</td>
<td>Competitive Meat Grading/Eval</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>330</td>
<td>Competitive Meat Grading/Eva</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>Maddock, Robert</td>
</tr>
<tr>
<td>360</td>
<td>Equine Nutrition</td>
<td>1</td>
<td>3</td>
<td>17</td>
<td>Hammer, Carolyn</td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>01</td>
<td>3</td>
<td>Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>02</td>
<td>3</td>
<td>Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>Swanson, Tara J.</td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Horsemanship</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>Swanson, Tara J.</td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>17</td>
<td>1</td>
<td>Swanson, Kendall C.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>18</td>
<td>3</td>
<td>Vonnahme, Kimberly A.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>19</td>
<td>1</td>
<td>Swanson, Kendall C.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>20</td>
<td>1</td>
<td>Sun, Xin (Rex)</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research - Meat Science</td>
<td>20</td>
<td>1</td>
<td>Sun, Xin (Rex)</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>2</td>
<td>2</td>
<td>Berg, Eric P.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>3</td>
<td>1</td>
<td>Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>393</td>
<td>Undergraduate Research</td>
<td>7</td>
<td>1</td>
<td>Grazul-Bilska, Anna</td>
<td></td>
</tr>
<tr>
<td>396</td>
<td>Field Experience</td>
<td>1</td>
<td>43</td>
<td>Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>396</td>
<td>Field Experience</td>
<td></td>
<td></td>
<td>Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>410</td>
<td>Therap. Horsemshp. Practicum</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>444</td>
<td>Livestock Muscle Physiology</td>
<td>1</td>
<td>3</td>
<td>36</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>457</td>
<td>Genetic Improvement/Livestock</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>457</td>
<td>Genetic Improvement of Livestock</td>
<td></td>
<td></td>
<td>1</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>458</td>
<td>Eval/Use Breeds of Livestock</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Buchanan, David S.</td>
</tr>
<tr>
<td>478</td>
<td>Research/Issues in Animal Ag</td>
<td>1</td>
<td>3</td>
<td>32</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>487</td>
<td>Growing/Finishing Cattle Mgt</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>487</td>
<td>Growing/Finishing Cattle Management</td>
<td></td>
<td>3</td>
<td>20</td>
<td>Stokka, Gerald L.</td>
</tr>
<tr>
<td>488</td>
<td>Dairy Industry and Production Systems</td>
<td>01</td>
<td>3</td>
<td>30</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>488</td>
<td>Dairy Industry/Production Syst</td>
<td>1</td>
<td>3</td>
<td>30</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>8</td>
<td>Baranko, Loren L.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>5</td>
<td>1</td>
<td>Berg, Erika L.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>02</td>
<td>23</td>
<td>Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>2</td>
<td>23</td>
<td>Swanson, Tara J.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>3</td>
<td>22</td>
<td>Eck, Tate D.</td>
<td></td>
</tr>
<tr>
<td>644</td>
<td>Livestock Muscle Physiology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>657</td>
<td>Genetic Improvement/Livestock</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>657</td>
<td>Genetic Improvement of Livestock</td>
<td></td>
<td></td>
<td>2</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>658</td>
<td>Eval/Use Breeds of Livestock</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Buchanan, David S.</td>
</tr>
<tr>
<td>658</td>
<td>Eval/Use Breeds of Livestock</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Buchanan, David S.</td>
</tr>
<tr>
<td>687</td>
<td>Growing/Finishing Cattle Mgt</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>701</td>
<td>Writing/Communicating Anim Sci</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>701</td>
<td>Writing and Communicating in the Animal Sciences</td>
<td></td>
<td>3</td>
<td>4</td>
<td>Hanna, Lauren</td>
</tr>
<tr>
<td>755</td>
<td>Advanced Meat Science</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Carlin, Kasey R.</td>
</tr>
<tr>
<td>758</td>
<td>Molecular Techniques</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Ward, Alison</td>
</tr>
<tr>
<td>776</td>
<td>Digestive Physiology</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td></td>
<td></td>
<td>9</td>
<td>Ward, Alison</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>6</td>
<td></td>
<td>1</td>
<td>Hoffman, Travis</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>3</td>
<td></td>
<td>1</td>
<td>Berg, Erika L.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td></td>
<td>6</td>
<td>Lardy, Greg</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Bauer, Marc L.</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>2</td>
<td></td>
<td>2</td>
<td>Caton, Joel S.</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>5</td>
<td></td>
<td>1</td>
<td>Berg, Eric P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td></td>
<td>12</td>
<td>Lardy, Greg</td>
</tr>
</tbody>
</table>

**ASM Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>Fund/Agric Systems Management</td>
<td>1</td>
<td>3</td>
<td>39</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>125</td>
<td>Fabrication &amp; Constr Technol</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>225</td>
<td>Computer Appli/Ag Systems MGT</td>
<td>1</td>
<td>3</td>
<td>28</td>
<td>Steele, Dean D.</td>
</tr>
<tr>
<td>323</td>
<td>Post-Harvest Technology</td>
<td>1</td>
<td>3</td>
<td>53</td>
<td>Rahman, Shafiqur</td>
</tr>
<tr>
<td>354</td>
<td>Electricity/Electronic Appl</td>
<td>1</td>
<td>3</td>
<td>29</td>
<td>Rahman, Shafiqur</td>
</tr>
<tr>
<td>368</td>
<td>Structures/Environment Systems</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>368</td>
<td>Structures and Environment Systems</td>
<td></td>
<td></td>
<td>1</td>
<td>Simsek, Halis</td>
</tr>
<tr>
<td>378</td>
<td>Machinery Principles/Management</td>
<td>1</td>
<td>3</td>
<td>36</td>
<td>Olhoft, Matt</td>
</tr>
<tr>
<td>468</td>
<td>Landscape Irrigation Design</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>2</td>
<td></td>
<td>3</td>
<td>Olhoft, Matt</td>
</tr>
</tbody>
</table>

**BIOC Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>3</td>
<td></td>
<td>1</td>
<td>Dorsam, Glenn P.</td>
</tr>
</tbody>
</table>

**BIOL Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>315</td>
<td>Genetics</td>
<td>1</td>
<td>3</td>
<td>64</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>2</td>
<td>3</td>
<td>65</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>1</td>
<td>1</td>
<td>19</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>2</td>
<td>1</td>
<td>15</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>3</td>
<td>1</td>
<td>15</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>4</td>
<td>1</td>
<td>14</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>5</td>
<td>1</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315L</td>
<td>Genetics Laboratory</td>
<td>6</td>
<td>1</td>
<td>18</td>
<td>Oliver, Rebekah E.</td>
</tr>
</tbody>
</table>

**BOT Fall 2017**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Section</th>
<th>Credit</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
</table>


<table>
<thead>
<tr>
<th>Number</th>
<th>Hours</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>431</td>
<td>3</td>
<td>Intermediate Genetics</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Rahman, Md Mukhlesur</td>
</tr>
</tbody>
</table>

**BUSBN**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>347</td>
<td>Principles of Real Estate</td>
<td>1</td>
<td>3</td>
<td>40</td>
<td>Saxowsky, David M.</td>
</tr>
</tbody>
</table>

**CFS**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Intro/Food Science &amp; Technolog</td>
<td>1</td>
<td>2</td>
<td>24</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>370</td>
<td>Food Processing I</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>430</td>
<td>Food Unit Operations</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>Rao, Jiajia</td>
</tr>
<tr>
<td>450</td>
<td>Cereal Technology</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>460</td>
<td>Food Chemistry</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>461</td>
<td>Food Chemistry Laboratory</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>462</td>
<td>Food Ingredient Technology</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Rao, Jiajia</td>
</tr>
<tr>
<td>474</td>
<td>Sensory Science/Foods</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Hall, Clifford</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Hall, Clifford</td>
</tr>
<tr>
<td>650</td>
<td>Cereal Technology</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Vegi, Anuradha</td>
</tr>
<tr>
<td>660</td>
<td>Food Chemistry</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>661</td>
<td>Food Chemistry Laboratory</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Chen, Bingcan</td>
</tr>
<tr>
<td>662</td>
<td>Food Ingredient Technology</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Rao, Jiajia</td>
</tr>
<tr>
<td>674</td>
<td>Sensory Science/Foods</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Hall, Clifford</td>
</tr>
<tr>
<td>758</td>
<td>Fundamentals/Flour Testing/Bak</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>Simsek, Senay</td>
</tr>
<tr>
<td>765</td>
<td>Adv Cereal/Food Chemistry I</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>766</td>
<td>Adv Cereal/Food Chemistry I</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>Schwarz, Paul B.</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>Manthey, Frank A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>Horsley, Richard</td>
</tr>
</tbody>
</table>

**ECON**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>Elements of Economics</td>
<td>1</td>
<td>3</td>
<td>130</td>
<td>Machunda, Zachary</td>
</tr>
<tr>
<td>105</td>
<td>Elements of Economics</td>
<td>2</td>
<td>3</td>
<td>174</td>
<td>Englund, David</td>
</tr>
<tr>
<td>105</td>
<td>Elements of Economics</td>
<td>3</td>
<td>3</td>
<td>56</td>
<td>Machunda, Zachary</td>
</tr>
<tr>
<td>201</td>
<td>Principles of Microeconomics</td>
<td>2</td>
<td>3</td>
<td>273</td>
<td>Englund, David</td>
</tr>
<tr>
<td>201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
<td>3</td>
<td>64</td>
<td>Lim, Siew H.</td>
</tr>
<tr>
<td>202</td>
<td>Principles of Macroeconomics</td>
<td>1</td>
<td>3</td>
<td>59</td>
<td>Machunda, Zachary</td>
</tr>
<tr>
<td>202</td>
<td>Principles of Macroeconomics</td>
<td>2</td>
<td>3</td>
<td>195</td>
<td>Caton, James</td>
</tr>
<tr>
<td>202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
<td>3</td>
<td>69</td>
<td>Zhang, Lei</td>
</tr>
<tr>
<td>341</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
<td>3</td>
<td>61</td>
<td>Jackson, Jeremy</td>
</tr>
<tr>
<td>343</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
<td>3</td>
<td>57</td>
<td>Caton, James</td>
</tr>
<tr>
<td>410</td>
<td>Econometrics</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>Zhang, Lei</td>
</tr>
<tr>
<td>440</td>
<td>Game Theory and Strategy</td>
<td>1</td>
<td>3</td>
<td>25</td>
<td>Jackson, Jeremy</td>
</tr>
<tr>
<td>481</td>
<td>Natural Resource Economics</td>
<td>1</td>
<td>3</td>
<td>35</td>
<td>Hearne, Robert</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>610</td>
<td>Econometrics</td>
<td></td>
<td>3</td>
<td>9</td>
<td>Zhang, Lei</td>
</tr>
<tr>
<td>640</td>
<td>Game Theory and Strategy</td>
<td></td>
<td>3</td>
<td>4</td>
<td>Jackson, Jeremy</td>
</tr>
<tr>
<td>681</td>
<td>Natural Resource Economics</td>
<td></td>
<td>3</td>
<td>5</td>
<td>Hearne, Robert</td>
</tr>
</tbody>
</table>

**ECS**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>19</td>
<td></td>
<td>1</td>
<td>Cannayen, Igathinathane</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>16</td>
<td></td>
<td>1</td>
<td>Roberts, David</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>17</td>
<td></td>
<td>1</td>
<td>Ripplinger, David G.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>19</td>
<td></td>
<td>1</td>
<td>Rahman, Shafiqur</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>20</td>
<td></td>
<td>1</td>
<td>Lin, Zhulu</td>
</tr>
</tbody>
</table>

**ENT**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Insects, Humans &amp; Environment</td>
<td>1</td>
<td>3</td>
<td>16</td>
<td>Harris, Marion</td>
</tr>
<tr>
<td>210</td>
<td>Insects, Humans and the Environment</td>
<td>1</td>
<td>3</td>
<td>16</td>
<td>Harris, Marion</td>
</tr>
<tr>
<td>750</td>
<td>Systematic Entomology</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>Rider, David A.</td>
</tr>
<tr>
<td>750</td>
<td>Insect Systematics</td>
<td>5</td>
<td></td>
<td>2</td>
<td>Rider, David A.</td>
</tr>
<tr>
<td>770</td>
<td>Writing Scientific Lit Review</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Knodel, Janet J.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>2</td>
<td></td>
<td>1</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td></td>
<td>1</td>
<td>Voldseth, Deirdre A.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis (Thesis Research)</td>
<td>5</td>
<td></td>
<td>1</td>
<td>Voldseth, Deirdre A.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>6</td>
<td></td>
<td>1</td>
<td>Rider, David A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td></td>
<td>2</td>
<td>Harmon, Jason P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>7</td>
<td></td>
<td>1</td>
<td>Knodel, Janet J.</td>
</tr>
</tbody>
</table>

**HNES**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>2</td>
<td>1</td>
<td>16</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>3</td>
<td>1</td>
<td>16</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>114</td>
<td>Racquetball</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>Gustad, Thomas R.</td>
</tr>
</tbody>
</table>

**HON**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>191</td>
<td>Seminar</td>
<td>6</td>
<td></td>
<td>33</td>
<td>Harmon, Jason P.</td>
</tr>
</tbody>
</table>

**ME**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>479</td>
<td>Fluid Power Systems Design</td>
<td>1</td>
<td>3</td>
<td>34</td>
<td>Bon, Thomas A.</td>
</tr>
</tbody>
</table>

**MICR**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Introductory Microbiology</td>
<td>1</td>
<td>2</td>
<td>185</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>202</td>
<td>Introductory Microbiology</td>
<td>2</td>
<td>2</td>
<td>27</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Section</td>
<td>Credit</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------</td>
<td>---------</td>
<td>--------</td>
<td>------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>202L</td>
<td>Introductory Microbiology Lab</td>
<td>8</td>
<td>1</td>
<td>23</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>350</td>
<td>General Microbiology</td>
<td>1</td>
<td>3</td>
<td>223</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>350L</td>
<td>General Microbiology Lab</td>
<td>4</td>
<td>2</td>
<td>24</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>350L</td>
<td>General Microbiology Lab</td>
<td>5</td>
<td>2</td>
<td>24</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>350L</td>
<td>General Microbiology Lab</td>
<td>6</td>
<td>2</td>
<td>24</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>350L</td>
<td>General Microbiology Lab</td>
<td>7</td>
<td>2</td>
<td>22</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>354</td>
<td>Scientific Writing</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>453</td>
<td>Food Microbiology</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>470</td>
<td>Basic Immunology</td>
<td>1</td>
<td>3</td>
<td>142</td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>471</td>
<td>Immunology &amp; Serology Lab</td>
<td>1</td>
<td>2</td>
<td>18</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>471</td>
<td>Immunology &amp; Serology Lab</td>
<td>2</td>
<td>2</td>
<td>21</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>475</td>
<td>Virology</td>
<td>1</td>
<td>3</td>
<td>36</td>
<td>Ramamoorthy, Sheela</td>
</tr>
<tr>
<td>482</td>
<td>Bacterial Genetics &amp; Phage</td>
<td>1</td>
<td>3</td>
<td>35</td>
<td>Gibbs, Penelope S.</td>
</tr>
<tr>
<td>486</td>
<td>Capstone Exp/Microbiology</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>1</td>
<td></td>
<td>3</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>16</td>
<td>2</td>
<td>19</td>
<td>Richman, Rachel L.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>17</td>
<td>1</td>
<td>2</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>653</td>
<td>Food Microbiology</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>670</td>
<td>Basic Immunology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>671</td>
<td>Immunology &amp; Serology Lab</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Gustad, Thomas R.</td>
</tr>
<tr>
<td>675</td>
<td>Virology</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Ramamoorthy, Sheela</td>
</tr>
<tr>
<td>682</td>
<td>Bacterial Genetics &amp; Phage</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>Gibbs, Penelope S.</td>
</tr>
<tr>
<td>752</td>
<td>Adv Topics Food Safety Micro</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>752</td>
<td>Adv Topics Food Safety Micro</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>767</td>
<td>Critical Thinking</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Ramamoorthy, Sheela</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>Gibbs, Penelope S.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>Pruess, Birgit</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>Ramamoorthy, Sheela</td>
</tr>
<tr>
<td>893</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>Bergholz, Peter W.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>Bergholz, Teresa</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>Berry, Eugene S.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>3</td>
<td>Dorsam, Glenn P.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>Gibbs, Penelope S.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>4</td>
<td>McEvoy, John</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>Pruess, Birgit</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>Ramamoorthy, Sheela</td>
</tr>
<tr>
<td>Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>150</td>
<td>Natural Res MGT Orientation</td>
<td>1</td>
<td>57</td>
<td>1</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>225</td>
<td>Nat Resources &amp; Agrosystems</td>
<td>1</td>
<td>66</td>
<td>3</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>394</td>
<td>Individual Study</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>420</td>
<td>Sustainable Scenarios in NRM</td>
<td>1</td>
<td>13</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>431</td>
<td>NEPA &amp; Environ Impact Assessm</td>
<td>1</td>
<td>30</td>
<td>3</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>431</td>
<td>NEPA &amp; Environ Impact Assessm</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>454</td>
<td>Wetland Resources Management</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>454</td>
<td>Wetland Resources Management</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>620</td>
<td>Sustainable Scenarios in NRM</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>631</td>
<td>NEPA &amp; Environ Impact Assessme</td>
<td>1</td>
<td>12</td>
<td>3</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>631</td>
<td>NEPA &amp; Environ Impact Assessme</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>654</td>
<td>Wetland Resource Management</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>702</td>
<td>Natural Resources MGT Planning</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>Sedivec, Kevin K.</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>Lin, Zhulu</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>Bajwa, Sreekala</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>Meehan, Miranda A.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>DeKeyser, Shawn</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>Norland, Jack E.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>Hargiss, Christina L.</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>Meehan, Miranda A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>1</td>
<td>3</td>
<td>23</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>2</td>
<td>3</td>
<td>21</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>3</td>
<td>3</td>
<td>19</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>4</td>
<td>3</td>
<td>16</td>
<td>Deckard, Edward</td>
</tr>
</tbody>
</table>

PLSC Fall 2017
<table>
<thead>
<tr>
<th>CRN</th>
<th>Description</th>
<th>UNIT</th>
<th>CAP</th>
<th>MAX</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>5</td>
<td>3</td>
<td>17</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>6</td>
<td>3</td>
<td>22</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>110</td>
<td>World Food Crops</td>
<td>7</td>
<td>3</td>
<td>25</td>
<td>Deckard, Edward</td>
</tr>
<tr>
<td>210</td>
<td>Horticulture Science</td>
<td>1</td>
<td>3</td>
<td>114</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>211</td>
<td>Horticulture Science Lab</td>
<td>1</td>
<td>1</td>
<td>21</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>211</td>
<td>Horticulture Science Lab</td>
<td>2</td>
<td>1</td>
<td>20</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>211</td>
<td>Horticulture Science Lab</td>
<td>3</td>
<td>1</td>
<td>20</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>211</td>
<td>Horticulture Science Lab</td>
<td>4</td>
<td>1</td>
<td>21</td>
<td>Lee, Chiwon W.</td>
</tr>
<tr>
<td>215</td>
<td>Weed Identification</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>Gramig, Greta G.</td>
</tr>
<tr>
<td>215</td>
<td>Weed Identification</td>
<td>2</td>
<td>1</td>
<td>25</td>
<td>Gramig, Greta G.</td>
</tr>
<tr>
<td>215</td>
<td>Weed Identification</td>
<td>3</td>
<td>1</td>
<td>27</td>
<td>Gramig, Greta G.</td>
</tr>
<tr>
<td>215</td>
<td>Weed Identification</td>
<td>4</td>
<td>1</td>
<td>23</td>
<td>Gramig, Greta G.</td>
</tr>
<tr>
<td>219</td>
<td>Intro/Prairie &amp; Commu Forestry</td>
<td>1</td>
<td>2</td>
<td>17</td>
<td>Zeleznik, Joe</td>
</tr>
<tr>
<td>296</td>
<td>Field Experience</td>
<td>1</td>
<td>3</td>
<td></td>
<td>Li, Deying</td>
</tr>
<tr>
<td>296</td>
<td>Field Experience</td>
<td>2</td>
<td>2</td>
<td></td>
<td>West, Todd</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>1</td>
<td>3</td>
<td>55</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>2</td>
<td>3</td>
<td>55</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>2</td>
<td>1</td>
<td>18</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>3</td>
<td>1</td>
<td>15</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>4</td>
<td>1</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>5</td>
<td>1</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>315</td>
<td>Genetics Laboratory</td>
<td>6</td>
<td>1</td>
<td>16</td>
<td>Oliver, Rebekah E.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>2</td>
<td>3</td>
<td>22</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>3</td>
<td>3</td>
<td>21</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>4</td>
<td>3</td>
<td>21</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>5</td>
<td>3</td>
<td>20</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>320</td>
<td>Principles/Forage Production</td>
<td>6</td>
<td>3</td>
<td>22</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>350</td>
<td>Sugarbeet Production</td>
<td>1</td>
<td>2</td>
<td>48</td>
<td>Berti, Marisol T.</td>
</tr>
<tr>
<td>350</td>
<td>Sugarbeet Production</td>
<td>2</td>
<td>48</td>
<td>Boetel Ph.D., Mark A.</td>
<td></td>
</tr>
<tr>
<td>355</td>
<td>Woody Landscape Plants</td>
<td>1</td>
<td>3</td>
<td>24</td>
<td>West, Todd</td>
</tr>
<tr>
<td>365</td>
<td>Herbaceous Landscape Plants</td>
<td>1</td>
<td>2</td>
<td>17</td>
<td>Hatterman-Valenti, Harlene</td>
</tr>
<tr>
<td>370</td>
<td>Landscape Management</td>
<td>1</td>
<td>3</td>
<td>19</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>375</td>
<td>Turfgrass Management</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>375</td>
<td>Turfgrass Management Lab</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>381</td>
<td>Sports Turf Operations</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>386</td>
<td>Arboriculture Operations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>West, Todd</td>
</tr>
<tr>
<td>394</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>411</td>
<td>Genomics</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Li, Xuehui</td>
</tr>
<tr>
<td>411</td>
<td>Genomics</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>McClean, Phillip</td>
</tr>
<tr>
<td>411</td>
<td>Genomics</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Meinhardt, Steven</td>
</tr>
<tr>
<td>425</td>
<td>Potato Science</td>
<td>1</td>
<td>2</td>
<td>33</td>
<td>Thompson, Asunta L.</td>
</tr>
<tr>
<td>431</td>
<td>Intermediate Genetics</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Rahman, Md Mukhlesur</td>
</tr>
<tr>
<td>444</td>
<td>Appl Plant Breeding &amp; Res Meth</td>
<td>1</td>
<td>3</td>
<td>70</td>
<td>Green, Andrew</td>
</tr>
<tr>
<td>453</td>
<td>Advanced Weed Science</td>
<td>1</td>
<td>2</td>
<td>50</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>468</td>
<td>Landscape Irrigation Design</td>
<td>1</td>
<td>2</td>
<td>13</td>
<td>Li, Deying</td>
</tr>
<tr>
<td>484</td>
<td>Plant Tissue Culture &amp; Biotech</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>Dai, David</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>1</td>
<td>15</td>
<td></td>
<td>Zuk, Alan J.</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>2</td>
<td>13</td>
<td>Zuk, Alan J.</td>
<td></td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>3</td>
<td>11</td>
<td>Zuk, Alan J.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>1</td>
<td>1</td>
<td>Lee, Chiwon W.</td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
<td>2</td>
<td>1</td>
<td>Deckard, Edward</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>25</td>
<td>Hatterman-Valenti, Harlene</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>3</td>
<td>1</td>
<td>Li, Deying</td>
<td></td>
</tr>
<tr>
<td>611</td>
<td>Genomics</td>
<td>1</td>
<td>3</td>
<td>Li, Xuehui</td>
<td></td>
</tr>
<tr>
<td>611</td>
<td>Genomics</td>
<td>3</td>
<td>9</td>
<td>McClean, Phillip</td>
<td></td>
</tr>
<tr>
<td>611</td>
<td>Genomics</td>
<td>1</td>
<td>3</td>
<td>Meinhardt, Steven</td>
<td></td>
</tr>
<tr>
<td>625</td>
<td>Potato Science</td>
<td>1</td>
<td>2</td>
<td>Thompson, Asunta L.</td>
<td></td>
</tr>
<tr>
<td>631</td>
<td>Intermediate Genetics</td>
<td>1</td>
<td>3</td>
<td>Rahman, Md Mukhlesur</td>
<td></td>
</tr>
<tr>
<td>653</td>
<td>Advanced Weed Science</td>
<td>1</td>
<td>3</td>
<td>Howatt, Kirk</td>
<td></td>
</tr>
<tr>
<td>684</td>
<td>Plant Tissue Culture &amp; Biotech</td>
<td>1</td>
<td>3</td>
<td>Dai, David</td>
<td></td>
</tr>
<tr>
<td>710</td>
<td>Professional Development I</td>
<td>1</td>
<td>1</td>
<td>38</td>
<td>Howatt, Kirk</td>
</tr>
<tr>
<td>718</td>
<td>Genetics &amp; Plant Improvement</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>Marais, Gideon</td>
</tr>
<tr>
<td>724</td>
<td>Field Design I</td>
<td>1</td>
<td>3</td>
<td>48</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>724</td>
<td>Field Design I</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>Horsley, Richard</td>
</tr>
<tr>
<td>749</td>
<td>Appl Plant Molecular Breeding</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Li, Xuehui</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>14</td>
<td>Gramig, Greta G.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>14</td>
<td>Osorno, Juan</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>2</td>
<td>Horsley, Richard</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>1</td>
<td>5</td>
<td>McClean, Phillip</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>2</td>
<td>2</td>
<td>Berti, Marisol T.</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>3</td>
<td>1</td>
<td>West, Todd</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Indiv Study/Tutorial</td>
<td>4</td>
<td>1</td>
<td>Hatterman-Valenti, Harlene</td>
<td></td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>49</td>
<td>Horsley, Richard</td>
<td></td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>3</td>
<td>Horsley, Richard</td>
<td></td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>18</td>
<td>Horsley, Richard</td>
<td></td>
</tr>
</tbody>
</table>

**PPTH**

**Course Number**

**Title**

**Section**

**Credit Hours**

**Enrollment**

**Instructor**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>2</td>
<td>3</td>
<td>17</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>2</td>
<td>3</td>
<td>17</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>4</td>
<td>3</td>
<td>17</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>4</td>
<td>3</td>
<td>17</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>5</td>
<td>3</td>
<td>17</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>5</td>
<td>3</td>
<td>17</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>6</td>
<td>3</td>
<td>18</td>
<td>Rasmussen, Jack</td>
</tr>
<tr>
<td>324</td>
<td>Introductory Plant Pathology</td>
<td>6</td>
<td>3</td>
<td>18</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>752</td>
<td>Plant Nematology</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>Yan, Guiping</td>
</tr>
<tr>
<td>758</td>
<td>Bacterial Nematode &amp; Viral Dis</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>Liu, Zhaohui</td>
</tr>
<tr>
<td>758</td>
<td>Bacterial Nematode &amp; Viral Dis</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>Secor, Gary A.</td>
</tr>
<tr>
<td>758</td>
<td>Bacterial Nematode &amp; Viral Dis</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>Yan, Guiping</td>
</tr>
<tr>
<td>760</td>
<td>Advanced Mycology</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>Zhong, Shaobin</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>28</td>
<td>Brueggeman, Robert S.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>28</td>
<td>Knodel, Janet J.</td>
<td></td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
<td>Section</td>
<td>Credit Hours</td>
<td>Enrollment</td>
<td>Instructor</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>2</td>
<td>7</td>
<td>Brueggeman, Robert S.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>2</td>
<td>7</td>
<td>Knodel, Janet J.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>3</td>
<td>3</td>
<td>Brueggeman, Robert S.</td>
<td></td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
<td>3</td>
<td>3</td>
<td>Knodel, Janet J.</td>
<td></td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
<td>1</td>
<td>2</td>
<td>Rasmussen, Jack</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td>5</td>
<td>Rasmussen, Jack</td>
<td></td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
<td>1</td>
<td>5</td>
<td>Secor, Gary A.</td>
<td></td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
<td>1</td>
<td>16</td>
<td>Rasmussen, Jack</td>
<td></td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
<td>1</td>
<td>22</td>
<td>Rasmussen, Jack</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RNG</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>Title</td>
</tr>
<tr>
<td>136</td>
<td>Introduction/Range Management</td>
</tr>
<tr>
<td>213</td>
<td>Rangeland Sampling Techniques</td>
</tr>
<tr>
<td>225</td>
<td>Nat Resource &amp; Agro-Ecosystems</td>
</tr>
<tr>
<td>458</td>
<td>Grazing Ecology</td>
</tr>
<tr>
<td>654</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>654</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
</tr>
<tr>
<td>792</td>
<td>Graduate Teaching Experience</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAFE</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>Title</td>
</tr>
<tr>
<td>401</td>
<td>Food Safety Info/Flow of Food</td>
</tr>
<tr>
<td>402</td>
<td>Foodborne Hazards</td>
</tr>
<tr>
<td>403</td>
<td>Food Safety Risk Assessment</td>
</tr>
<tr>
<td>404</td>
<td>Epidemiology/Foodborne Illness</td>
</tr>
<tr>
<td>405</td>
<td>Costs of Food Safety</td>
</tr>
<tr>
<td>406</td>
<td>Food Safety Crisis Communicat</td>
</tr>
<tr>
<td>407</td>
<td>Food Safety Risk Management</td>
</tr>
<tr>
<td>407</td>
<td>Food Safety Risk Management</td>
</tr>
<tr>
<td>408</td>
<td>Food Safety Regulatory Issues</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>452</td>
<td>Food Laws &amp; Regulations</td>
</tr>
<tr>
<td>452</td>
<td>Food Laws &amp; Regulations</td>
</tr>
<tr>
<td>484</td>
<td>Food Safety Practicum</td>
</tr>
<tr>
<td>601</td>
<td>Food Safety Info/Flow of Food</td>
</tr>
<tr>
<td>601</td>
<td>Food Safety Info/Flow of Food</td>
</tr>
<tr>
<td>602</td>
<td>Foodborne Hazards</td>
</tr>
<tr>
<td>602</td>
<td>Foodborne Hazards</td>
</tr>
<tr>
<td>603</td>
<td>Food Safety Risk Assessment</td>
</tr>
<tr>
<td>603</td>
<td>Food Safety Risk Assessment</td>
</tr>
<tr>
<td>604</td>
<td>Epidemiology/Foodborne Illness</td>
</tr>
<tr>
<td>604</td>
<td>Epidemiology/Foodborne Illness</td>
</tr>
<tr>
<td>605</td>
<td>Costs of Food Safety</td>
</tr>
<tr>
<td>605</td>
<td>Costs of Food Safety</td>
</tr>
<tr>
<td>606</td>
<td>Food Safety Crisis Communicat</td>
</tr>
<tr>
<td>606</td>
<td>Food Safety Crisis Communicat</td>
</tr>
<tr>
<td>607</td>
<td>Food Safety Risk Management</td>
</tr>
<tr>
<td>607</td>
<td>Food Safety Risk Management</td>
</tr>
<tr>
<td>607</td>
<td>Food Safety Risk Management</td>
</tr>
<tr>
<td>608</td>
<td>Food Safety Regulatory Issues</td>
</tr>
<tr>
<td>608</td>
<td>Food Safety Regulatory Issues</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
</tr>
<tr>
<td>797</td>
<td>Master's Paper</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
<tr>
<td></td>
<td>Course Title</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>210</td>
<td>Intro to Soil Science</td>
</tr>
<tr>
<td>351</td>
<td>Soil Ecology</td>
</tr>
<tr>
<td>351</td>
<td>Soil Ecology</td>
</tr>
<tr>
<td>433</td>
<td>Soil Physics</td>
</tr>
<tr>
<td>433</td>
<td>Soil Physics</td>
</tr>
<tr>
<td>444</td>
<td>Soil Genesis and Survey</td>
</tr>
<tr>
<td>454</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>454</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>494</td>
<td>Individual Study</td>
</tr>
<tr>
<td>633</td>
<td>Soil Physics</td>
</tr>
<tr>
<td>633</td>
<td>Soil Physics</td>
</tr>
<tr>
<td>644</td>
<td>Soil Genesis and Survey</td>
</tr>
<tr>
<td>654</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>654</td>
<td>Wetland Resources Management</td>
</tr>
<tr>
<td>Course Number</td>
<td>Title</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>721</td>
<td>Instrumentation and Sampling</td>
</tr>
<tr>
<td>755</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>755</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>790</td>
<td>Graduate Seminar</td>
</tr>
<tr>
<td>793</td>
<td>Individual Study/Tutorial</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
</tr>
<tr>
<td>798</td>
<td>Master's Thesis</td>
</tr>
<tr>
<td>892</td>
<td>Graduate Teaching Experience</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation</td>
</tr>
</tbody>
</table>

**UNIV**

**Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>720</td>
<td>Scientific Integrity</td>
<td>1</td>
<td>1</td>
<td>27</td>
<td>Dorsam, Glenn P.</td>
</tr>
</tbody>
</table>

**VETS**

**Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>Companion Animal Breeds</td>
<td>1</td>
<td>1</td>
<td>58</td>
<td>Schrupp, Jordan L.</td>
</tr>
<tr>
<td>135</td>
<td>Anatomy/Phys/Dom Animals</td>
<td>1</td>
<td>3</td>
<td>156</td>
<td>Christenson, Lisa A.</td>
</tr>
<tr>
<td>135</td>
<td>Anatomy and Physiology of Domestic Animals</td>
<td>3</td>
<td>156</td>
<td>Christenson, Lisa A.</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>Intro/Veterinary Profession</td>
<td>1</td>
<td>1</td>
<td>59</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>256</td>
<td>Vet Clinical Tech/Instruments</td>
<td>1</td>
<td>4</td>
<td>28</td>
<td>Ostby, Stacey M.</td>
</tr>
<tr>
<td>357</td>
<td>Veterinary Pharmacology</td>
<td>01</td>
<td>2</td>
<td>28</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>357</td>
<td>Veterinary Pharmacology</td>
<td>1</td>
<td>3</td>
<td>28</td>
<td>Wagner, Sarah A.</td>
</tr>
<tr>
<td>399</td>
<td>Special Topics</td>
<td>1</td>
<td>16</td>
<td></td>
<td>Christenson, Lisa A.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>399</td>
<td>Special Topics</td>
<td>2</td>
<td>10</td>
<td>Christenson, Lisa A.</td>
<td></td>
</tr>
<tr>
<td>399</td>
<td>Small Mammal and Exotic Animal Health and Husbandry</td>
<td>2</td>
<td>16</td>
<td>Christenson, Lisa A.</td>
<td></td>
</tr>
<tr>
<td>399</td>
<td>Small Mammal and Exotic Animal Health and Husbandry Laboratory</td>
<td>10</td>
<td>10</td>
<td>Christenson, Lisa A.</td>
<td></td>
</tr>
<tr>
<td>483</td>
<td>Clinical Veterinary Practicum</td>
<td>1</td>
<td>6</td>
<td>Ostby, Stacey M.</td>
<td></td>
</tr>
<tr>
<td>483</td>
<td>Clinical Veterinary Practicum</td>
<td>2</td>
<td>24</td>
<td>Ostby, Stacey M.</td>
<td></td>
</tr>
<tr>
<td>491</td>
<td>Seminar - Veterinary Pharmacology and Pharmacy Practice</td>
<td>03</td>
<td>2</td>
<td>Wagner, Sarah A.</td>
<td></td>
</tr>
<tr>
<td>491</td>
<td>Seminar</td>
<td>3</td>
<td>10</td>
<td>Wagner, Sarah A.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Field Experience</td>
<td>1</td>
<td>7</td>
<td>Schrupp, Jordan L.</td>
<td></td>
</tr>
</tbody>
</table>

**ZOO**  
**Fall 2017**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Section</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>431</td>
<td>Intermediate Genetics</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>Rahman, Md Mukhlesur</td>
</tr>
</tbody>
</table>
Agribusiness and Applied Econ

Caton, James (Assistant Professor)

**Funded**
Caton, James, "Graduate Student Assistantship," Sponsored by George Mason University, $20,000.00. (2013 - Present).

**Funded**

Hanson, Erik (Assistant Professor)

**Funded**
Hanson, Erik (Principal:), Olson, Frayne (Co-Principal:), Roberts, David (Co-Principal:), "An Analysis of Precision Agriculture Technology Adoption, Usage, and Opportunities on North Dakota Farms," Sponsored by NDSU AES Precision Agriculture, North Dakota State University, $55,000.00. (November 15, 2017 - June 30, 2019).

**Not Awarded**
Hanson, Erik (Co-Principal:), Hoffman, Travis (Principal:), Fausti, Scott W (Co-Principal:), "True Economic Impact of Future Value Based Marketing in the U.S. Sheep Industry," Sponsored by National Sheep Industry Improvement Center, $11,864.00. (2017).

Hearne, Robert (Professor)

**Not Awarded**
Hearne, Robert (Principal:), Shaik, Saleem (Co-Principal:), Ryberg, Karen (Co-Principal:), Macek-Rowland, Kathleen (Co-Principal:), "Assessing Irrigation Efficiency in the Missouri River Basin," Sponsored by USGS NIWR(g), Federal, $149,936.00. (2016 - 2019).

Jackson, Jeremy (Associate Professor)

**Funded**

Lim, Siew H. (Associate Professor)

**Funded**
Jacobs, J (Principal:), Lim, Siew (Co-Principal:), "Satellite Enhanced Snowmelt Flood Predictions in the Red River of the North Basin," Sponsored by National Aeronautics and Space Administration (NASA), ROSES Project #:13-WATER13-0036, $1,500,000.00. (January 1, 2017 - September 2019).

**Not Awarded**
"Rural Community Resilience to Shale Oil Development: the Case of North Dakota," Sponsored by NIFA, Federal, $497,376.00.

Lakkakula, Prithviraj (Research Assistant Professor)

**Funded**

Not Awarded
Ripplinger, David, Lakkakula, Prithviraj, "Increased Environmental and Economic Sustainability through improved Market Behavior," Sponsored by NCSARE, Federal, $150,000.00. (July 1, 2017 - June 30, 2019).

Nganje PhD, William (Professor)

Funded
Bakare, Bukola (Co-Principal: Student RA), "Innovation in Health Transportation Economics," Sponsored by RWJF, Federal, $120,000.00. (August 15, 2016 - August 15, 2020).

Funded

Olson, Frayne E. (Associate Professor)

Funded
Hanson, Erik (Principal:), Olson, Frayne (Co-Principal:), Roberts, David (Co-Principal:), "An Analysis of Precision Agriculture Technology Adoption, Usage, and Opportunities on North Dakota Farms," Sponsored by NDSU AES Precision Agriculture, North Dakota State University, $55,000.00. (November 15, 2017 - June 30, 2019).

Funded

Ripplinger, David G. (Assistant Professor)

Funded
Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey (Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil water management in frigid northern Great Plains soils," Sponsored by Natural Resource Conservation Service – Conservation Innovation Grant, Federal, $999,327.00. (2017 - 2020).

Funded

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Corn Council, State, $135,958.00. (July 1, 2017 - June 30, 2019).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Soybean Council, State, $57,785.00. (July 1, 2017 - June 30, 2018).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 4)," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

**Funded**

**Not Awarded**

**Not Awarded**
Cannayen, Igathinathane (Co-Principal:), Bajwa, Dilpreet (Other: Project Director), Ripplinger, David (Co-Principal:), "Technology Driven Biomass Economic Development in Upper Midwest United States," Sponsored by AFRI Foundational, NIFA 2015, $487,755.00. (September 2015 - December 2019).

**Not Awarded**

**Not Awarded**
Ripplinger, David, Lakkakula, Prithviraj, "Increased Environmental and Economic Sustainability through improved Market Behavior," Sponsored by NCSARE, Federal, $150,000.00. (July 1, 2017 - June 30, 2019).

**Not Awarded**

**Not Awarded**


**Not Awarded**
Cannayen, Igathinathane (Co-Principal:), Pryor, Scott (Other: Project Director), Ripplinger, David (Co-Principal:), "Processing Pelleted Biomass in Conventional Corn Ethanol Facilities," Sponsored by USDA AFRI, $499,284.00. (September 1, 2013 - August 31, 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the SHARE Farm," Sponsored by ND Corn Council, State, $141,341.00. (July 1, 2015 - June 30, 2017).

Roberts, David (Associate Professor)

**Funded**
Hanson, Erik (Principal:), Olson, Frayne (Co-Principal:), Roberts, David (Co-Principal:), "An Analysis of Precision Agriculture Technology Adoption, Usage, and Opportunities on North Dakota Farms," Sponsored by NDSU AES Precision Agriculture, North Dakota State University, $55,000.00. (November 15, 2017 - June 30, 2019).

**Funded**


**Funded**


**Not Awarded**

DeKeyser, Edward (Principal:), Roberts, David (Co-Principal:), Kobiela, Breanna (Co-Principal: Supporting), Toy, Dustin (Co-Principal: PhD Student), Anteau, Michael (Co-Principal: USGS Personnel), Pearse, Aaron (Co-Principal: USGS Personnel), "Using precision agriculture to predict economic viability of farming wetlands," Sponsored by North Dakota State University, $54,437.00. (November 2017 - Present).

**Not Awarded**

Limb, Ryan (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Roberts, David (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

**Not Awarded**


**Not Awarded**

DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean, Casey, Francis, Chatterjee, Wick, Abbey, Hopkins, Roberts, David, Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS CIG, $988,279.00. (September 30, 2015 - September 29, 2018).

Shaik, Saleem (Associate Professor)

**Funded**


**Not Awarded**

 Hearne, Robert (Principal:), Shaik, Saleem (Co-Principal:), Ryberg, Karen (Co-Principal:), Macek-Rowland, Kathleen (Co-Principal:), "Assessing Irrigation Efficiency in the Missouri River Basin," Sponsored by USGS NIWR(g), Federal, $149,936.00. (2016 - 2019).

Undi, Michael (Research Assistant Professor)

**Funded**

Dahlen, Carl, Undi, Michael, "Development and Deployment of a Mobile Cow Command Center for Precision Management of Beef Cattle," Sponsored by NDAES Precision Ag Grant Program, $80,000.00. (November 15, 2017 - June 30, 2019).
Not Awarded
Hovick, Torre (Principal:), Limb, Ryan (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), Toledo, David (Co-Principal:), Undi, Michael (Co-Principal:), "Restoring Multi-Functionality To A Novel Ecosystem," Sponsored by USDA AFRI, Federal, $499,907.00. (January 2017 - December 2020).

Wachenheim, Cheryl J. (Professor)

Funded
Wachenheim, Cheryl, "Understanding producer decision-making about landscapes within the Prairie Pothole Region," Sponsored by Delta Waterfowl, $59,000.00. (January 1, 2017 - December 31, 2020).

Funded

Wilson, William W. (Professor)

Funded

Zhang, Lei (Assistant Professor)

Not Awarded
Mahalingam, Ganapathy, Srivastava, Malini (Principal:), Reed, Wendy (Principal:), Aly Ahmed, Bakr, Christenson, Mike, Cwiak, Carol, Fischer, Dominic, Ge, Yue, Kim, Young, Kirkwood, Matthew, Kirkwood, Meghan, Strand, Michael, Urness, Cindy, Norland, Jack (Principal:), Zhang, Lei, Day, Stephanie, Gong, Na, Yang, Huojun, Hong, Miyoung, "NexCS: Next Generation Community Systems," Sponsored by North Dakota State University, North Dakota State University, $999,827.00. (August 16, 2016 - August 15, 2017).

Agricultural & Biosystems Eng

Bajwa, Sreekala (Professor)

Funded
Bajwa, Sreekala, Nowatzki, John, Howatt, Kirk, "Field validation of weed species and herbicide resistance identification with a multi-sensor," Sponsored by North Dakota Agricultural Experiment Station, State, $59,006.00. (December 2017 - June 30, 2019).

Funded

Funded

Not Awarded

Not Awarded

Cannayen, Igathinathane (Associate Professor)

**Funded**
Pryor, Scott (Principal:), Grewell, David (Co-Principal: sub-award (Iowa State University)), Cannayen, Igathinathane (Supporting:), "Use of Pelleted Biomass to Reduce Pretreatment Severity." Sponsored by North Central Sun Grant Initiative, Federal, $149,698.00. (January 2017 - December 2018).

**Funded**
Cannayen, Igathinathane (Co-Principal:), "Phenocam application in LTAR project. Specific Cooperative Agreement between USDA-ARS and NDSU," $30,000.00. (October 1, 2015 - September 30, 2017).

**Funded**
Cannayen, Igathinathane (Principal:), "Mechanical, thermal, and storage characteristics of biomass; Specific Cooperative Agreement between USDA-ARS and NDSU. Project amendment II," $15,000.00. (October 1, 2014 - September 30, 2017).

**Funded**
Cannayen, Igathinathane (Principal:), "Mechanical, thermal, and storage characteristics of biomass," Sponsored by Specific Cooperative Agreement between USDA-ARS and NDSU, $5,000.00. (October 1, 2013 - September 30, 2017).

**Funded**

**Funded**
Cannayen, Igathinathane (Co-Principal:), Flores, Paulo (Principal:), Ostlie, Mike (Co-Principal:), Teboh Jasper (Co-Principal:), Schatz, Blaine, Zilahi-Sebess, Szilvia, Aberle, Ezra, Nowatzki, John, Endres, Greg, "Increasing UAV related research capacity at the Carrington REC," $96,689.00. (January 1, 2016 - June 30, 2017).

**Currently Under Review**

**Not Awarded**

**Not Awarded**

**Not Awarded**

**Not Awarded**
Cannayen, Igathinathane (Co-Principal:), Bajwa, Dilpreet (Other: Project Director), Ripplinger, David (Co-Principal:), "Technology Driven Biomass Economic Development in Upper Midwest United States," Sponsored by AFRI Foundational, NIFA 2015, $487,755.00. (September 2015 - December 2019).
Not Awarded

Not Awarded

Not Awarded

Not Awarded

Not Awarded

Not Awarded

Not Awarded

Not Awarded
Cannayen, Igathinathane (Co-Principal:), Bora, Ganesh, Nowatzki, J (Co-Principal:), "Machine Enhancement and Precision Technologies for Mechanical Harvesting of cattails," $147,054.00. (September 1, 2013 - August 31, 2017).

Not Awarded
Cannayen, Igathinathane (Co-Principal:), Pryor, Scott (Other: Project Director), Ripplinger, David (Co-Principal:), "Processing Pelleted Biomass in Conventional Corn Ethanol Facilities," Sponsored by USDA AFRI, $499,284.00. (September 1, 2013 - August 31, 2017).

Hellevang, Kenneth (Professor)

Not Awarded

Jia, Xinhua (Associate Professor)

Funded
Jia, Xinhua (Principal:), "Managing Water for Increased Resiliency of Drained Agricultural Landscapes," Sponsored by Purdue University, Private, $361,032.00. (February 1, 2015 - January 31, 2020).
Funded
Lin, Zhulu (Principal:), Jia, Xinhua, "S1063 Quantification of Best Management Practice Effectiveness for Water Quality Protection at the Watershed Scale (Multistate Project)," Sponsored by USDA-NIFA Formula, $0.00. (October 2015 - September 2019).

Funded

Funded
Jia, Xinhua (Principal:), Scherer, Thomas F. (Co-Principal:), "Impact of best water management on soil/water quality and soybean production," Sponsored by ND Soybean Council, $17,705.00. (July 1, 2017 - June 30, 2018).

Funded
Niaghi, Ali Rashid (Principal:), Jia, Xinhua (Senior Personnel:), "Crop evapotranspiration measurement by eddy covariance, Bowen ratio, and soil water balance for a control drained and subirrigated field," Sponsored by ND WRRI, $9,360.00. (March 1, 2017 - February 28, 2018).

Funded

Funded
Roy, Debjit (Principal:), Jia, Xinhua (Senior Personnel:), "8. Snowmelt water infiltration into frozen soils in the Red River of the North Basin," Sponsored by ND WRRI, $3,000.00. (March 1, 2016 - February 28, 2017).

Not Awarded
"Impact of Drainage Water Management on Soil Phosphorus Loss in the Red River of the North Basin," Sponsored by NIFA, Federal, $150,000.00.

Not Awarded
Steele, Dean (Co-Principal: Irrigation engineer with drip irrigation research experience), Jia, Xinhua (Principal: Lead PI and project coordinator), Scherer, Thomas (Co-Principal: Lead Extension person; engineer with drip irrigation experience), Schatz, Blaine (Co-Principal: Host at Carrington Research Extension Center; supervisor of agronomic operations), "Sweet corn production with soil moisture sensor controlled drip irrigation and plastic mulches," Sponsored by USDA Specialty Crops Block Grant Program, State, $105,952.00. (October 5, 2016 - Present).

Not Awarded
Jia, Xinhua (Principal:), Scherer, Thomas (Co-Principal:), Steele, Dean (Co-Principal:), Schatz, Blaine (Co-Principal:), "Automatic soil moisture control of drip irrigation under plastic mulch for high value crop production," Sponsored by North Dakota Department of Agriculture, USDA Specialty Crop Block Grant Program, Federal, $94,057.00. (October 3, 2017 - September 23, 2019).

Lin, Zhulu (Assistant Professor)

Funded
Lin, Zhulu (Principal:), Jia, Xinhua, "S1063 Quantification of Best Management Practice Effectiveness for Water Quality Protection at the Watershed Scale (Multistate Project)," Sponsored by USDA-NIFA Formula, $0.00. (October 2015 - September 2019).

Funded
Lin, Zhulu (Co-Principal:), Zheng, Haochi (Principal:), Zhang, Xiaodong, "Evaluating how market and policy affect cellulosic biofuel feedstock production in marginal land of Upper Midwest and its consequences on
water sustainability in a changing climate," Sponsored by USDA-NIFA Bioenergy Challenge Program, Federal, $555,000.00. (September 2013 - August 2018).

Funded

Funded

Funded
Lin, Zhulu (Principal:), "Assessing the impacts of hydraulic fracturing at Bakken on regional water resources," Sponsored by North Dakota Water Resources Research Institute, State, $2,812.00. (March 2016 - February 2017).

Rahman, Shafiqur (Associate Professor)

Funded

Funded

Funded
Rahman, Shafiqur (Principal:), "Fate and transport of zinc and silver nanoparticles (NPs) in livestock manure and their impacts on the environment (air and soil)," Sponsored by AFRI-NIFA, $149,714.00. (February 1, 2015 - January 31, 2018).

Funded
Rahman, Shafiqur (Principal:), "Biochar Production and Characterization from Feedlot Manure and Wet Distiller Grains (WDG) as an Environmental Management Option," Sponsored by North Dakota Corn Council, Local, $4,999.00. (July 1, 2016 - June 30, 2017).

Not Awarded
Saini-Eidukat, Bernhardt, Rahman, Shafiqur, "Environmental Particulate Matter in the Fort Berthold Reservation, North Dakota," Sponsored by NIOSH Mountain and Plains Education and Research Center, $15,000.00. (2017 - Present).

Not Awarded
Rahman, Shafiqur, Quadir, Mohi (Co-Principal:), Swanson, Kendall (Co-Principal:), Lee, Chiwon (Co-Principal:), "Fate and transport of zinc and silver nanoparticles (NPs) in livestock manure and their impacts on the environment (air and soil) and crop(s)," Sponsored by AFRI-NIFA, $499,988.00. (October 1, 2016 - September 30, 2019).

Scherer, Thomas (Associate Professor)

Funded
Not Awarded
Steele, Dean (Co-Principal: Irrigation engineer with drip irrigation research experience), Jia, Xinhua (Principal: Lead PI and project coordinator), Scherer, Thomas (Co-Principal: Lead Extension person; engineer with drip irrigation experience), Schatz, Blaine (Co-Principal: Host at Carrington Research Extension Center; supervisor of agronomic operations), "Sweet corn production with soil moisture sensor controlled drip irrigation and plastic mulches," Sponsored by USDA Specialty Crops Block Grant Program, State, $105,952.00. (October 5, 2016 - Present).

Not Awarded
Steele, Dean (Co-Principal: Lead North Dakota investigator), Scherer, Thomas (Co-Principal:), Irmak, Suat (Principal:), Kilic, Ayse (Co-Principal:), Haghverdi, A (Co-Principal:), Payero, Jose (Co-Principal:), Mitchell, Jade (Co-Principal:), Day, Monica (Co-Principal:), Strock, Jeffrey (Co-Principal:), Mulla, David (Co-Principal:), "Quantification of Regional Impacts of Technology Implementation in Agricultural and Urban Water Quantity and Quality Management by Expansion of Nebraska Agricultural Water Management Network (NAWNM) through Multi-state Integrated Research and Extension/Outreach," Sponsored by USDA-NIFA-Water for Agriculture Challenge Area FY 2016; NIFA proposal number 2016-10218, Federal, $370,871.00. (January 1, 2017 - December 31, 2021).

Not Awarded
Jia, Xinhua (Principal:), Scherer, Thomas (Co-Principal:), Steele, Dean (Co-Principal:), Schatz, Blaine (Co-Principal:), "Automatic soil moisture control of drip irrigation under plastic mulch for high value crop production," Sponsored by North Dakota Department of Agriculture, USDA Specialty Crop Block Grant Program, Federal, $94,057.00. (October 3, 2017 - September 23, 2019).

Simsek, Halis (Assistant Professor)

Funded

Funded
Simsek, Halis (Principal:), "Production and composition of EPS and SMP in various sources of wastewaters treated by mixed culture bacteria with the presence and absence of algae," Sponsored by NDSU - RCA Small Grant Program, North Dakota State University, $4,986.00. (October 20, 2017 - May 31, 2018).

Funded

Funded

Funded

Funded

Funded
Simsek, Halis (Principal: Student scholarship for Swati Sharma), "Wastewater derived dissolved organic nitrogen removal using integrated system of biological reactors and UV light irradiation," Sponsored by North Dakota Water Resources Research Institute (NDWRRI), State, $6,000.00. (March 1, 2016 - February 28, 2017).

Not Awarded
Chu, Xuefeng (Co-Principal:), Simsek, Halis (Principal:), Kalin, Latif (Co-Principal: Auburn University), "Determining the role of wetlands on water quality improvement in North Dakota," Sponsored by USGS National Institute of Water Resources, Federal, $242,200.00. (September 1, 2017 - August 31, 2020).

Not Awarded
Sandeep, Kumar (Principal: South Dakota State University), Simsek, Halis (Co-Principal:), "Quantifying the Impacts of Grazing Pastures and Row Crops on Water and Soil Quality, and Greenhouse Gas Emissions across the Big Sioux River Basin," Sponsored by USGS Agriculture and Food Research Initiative Competitive Grants Program, Federal, $500,000.00. (September 1, 2017 - August 31, 2020).

Not Awarded
Simsek, Halis (Principal:), "Freshwater harmful algal blooms suppression using various chemical and biological methods," Sponsored by Environmental Protection Agency (EPA), Federal, $319,405.00. (July 2017 - June 2020).

Not Awarded

Not Awarded
Simsek, Halis (Principal:), Pehlivan, Erol (Principal: Selcuk University, Turkey), "Evaluation of nano-hazardous material in domestic wastewater," Sponsored by The Scientific and Technological Research Council (TUBITAK) of Turkey, Other, $40,000.00. (August 1, 2016 - July 31, 2017).

Not Awarded
Simsek, Halis (Principal:), Can, Orhan Taner (Principal: Bursa Technical University, Turkey), "Total organic carbon and nitrogen removal from wastewaters using integrated electrochemical and UV-photolize methods," Sponsored by The Scientific and Technological Research Council (TUBITAK) of Turkey, Other, $40,000.00. (August 1, 2016 - July 31, 2017).

Steele, Dean D. (Associate Professor)

Funded
Hopkins, David G (Principal: Sampling design, mentoring graduate student, outreach), Steele, Dean E (Co-Principal: Development of evapotranspiration maps; sampling design), "Evaluating Soil Health using Remotely Sensed Evapotranspiration on the Benchmark Barnes Soils of North Dakota," Sponsored by Cass County Soil and Water Conservation District (SWCD), Local, $10,500.00. (June 1, 2015 - Present).

Funded
Hopkins, David G (Principal: PI, sampling design, mentor to graduate student, outreach), Steele, Dean D (Co-Principal: development of evapotranspiration maps, sampling design), "Evaluating Soil Health using Remotely Sensed Evapotranspiration on the Benchmark Barnes Soils of North Dakota," Sponsored by USDA/NRCS Soil Survey Division, Federal, $95,637.00. (September 3, 2015 - September 30, 2018).

Not Awarded
Steele, Dean (Co-Principal: Irrigation engineer with drip irrigation research experience), Jia, Xinhua (Principal: Lead PI and project coordinator), Scherer, Thomas (Co-Principal: Lead Extension person; engineer with drip irrigation experience), Schatz, Blaine (Co-Principal: Host at Carrington Research Extension Center; supervisor of agronomic operations), "Sweet corn production with soil moisture sensor controlled drip irrigation and plastic mulches," Sponsored by USDA Specialty Crops Block Grant Program, State, $105,952.00. (October 5, 2016 - Present).

Not Awarded

Steele, Dean (Co-Principal: Lead North Dakota investigator), Scherer, Thomas (Co-Principal:), Irmak, Suat (Principal:), Kilic, Ayse (Co-Principal:), Haghverdi, A (Co-Principal:), Payero, Jose (Co-Principal:), Mitchell, Jade (Co-Principal:), Day, Monica (Co-Principal:), Strock, Jeffrey (Co-Principal:), Mulla, David (Co-Principal:), "Quantification of Regional Impacts of Technology Implementation in Agricultural and Urban Water Quantity and Quality Management by Expansion of Nebraska Agricultural Water Management Network (NAWNM) through Multi-state Integrated Research and Extension/Outreach," Sponsored by USDA-NIFA-Water for Agriculture Challenge Area FY 2016; NIFA proposal number 2016-10218, Federal, $370,871.00. (January 1, 2017 - December 31, 2021).

Not Awarded

Jia, Xinhua (Principal:), Scherer, Thomas (Co-Principal:), Steele, Dean (Co-Principal:), Schatz, Blaine (Co-Principal:), "Automatic soil moisture control of drip irrigation under plastic mulch for high value crop production," Sponsored by North Dakota Department of Agriculture, USDA Specialty Crop Block Grant Program, Federal, $94,057.00. (October 3, 2017 - September 23, 2019).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Steele, Dean (Co-Principal:), Casey, Francis (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Hopkins, David (Co-Principal:), Reese, Amy (Co-Principal:), Xu, Yiwen (Co-Principal:), "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).

Not Awarded

DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean, Casey, Francis, Chatterjee, Wick, Abbey, Hopkins, Roberts, David, Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS CIG, $988,279.00. (September 30, 2015 - September 29, 2018).

Animal Science

Bauer, Marc L. (Associate Professor)

Funded

Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

Funded

Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

Funded

Swanson, Kendall (Co-Principal:), Ominski, Kim (Principal:), Vonnahme, Kimberly (Principal:), Reynolds, Lawrence (Co-Principal:), Bauer, Marc (Co-Principal:), Dahlen, Carl (Co-Principal:), Stokka, Gerald (Co-Principal:), Ward, Alison (Co-Principal:), "Impact of Winter Feeding and Vaccination Strategies on
Berg, Eric P. (Professor)

**Funded**


Berg, Eric P (Principal:), "Does replacing sugar with beef during gestation prevent postnatal stunting and predisposition for obesity-related metabolic disorders in a swine biomedical model?," Sponsored by North Dakota Beef Commission, State, $193,976.00. (September 1, 2016 - August 31, 2018).

**Funded**

Ward, Alison (Principal:), Berg, Eric (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), Swanson, Kendall (Co-Principal:), "A biomedical model for the role of beef as a healthy alternative to a high-sugar diet during pregnancy on offspring growth and development," Sponsored by State Board of Agriculture Research & Education, State, $21,500.00. (January 2017 - December 2017).

**Funded**

Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

**Funded**

Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

Not Awarded

Carlin, Kasey (Supporting:), Reed, DeMetris (Principal:), Berg, Eric (Co-Principal:), "Will increasing field pea concentrate (Pisum sativum) level in high-concentrate finishing diets improve growth performance, carcass traits, and palatability attributes in Brahman steers?," Sponsored by National Cattleman's Beef Association, Other, $40,000.00. (2016 - 2017).

Berg, Erika L. (Associate Professor)

**Funded**

Berg, Erika (Co-Principal:), Christenson, Lisa (Co-Principal:), "Animal Reproduction Models," North Dakota State University, $1,000.00. (March 7, 2017).

Not Awarded

Berg, Erika (Principal:), McCourt, Mark (Supporting:), Hilmert, Clayton (Supporting:), Sun, Xin (Supporting:), Doetkott, Curt (Supporting:), "Measurement of sympathetic nervous activity in horses and humans with and without post-traumatic stress disorder," Sponsored by Horses and Humans Research Foundation, $9,989.00. (July 7, 2017).

Borowicz, Pawel (Research Assistant Professor)

**Funded**

Quadir, Mohi (Principal: PI), Quadir, Mohi (Principal: PI), Borowicz, Pawel (Principal: PI), Mallik, Sanku (Principal: PI), Jiang, Long (Principal: PI), Habib, Khalid (Principal: PI), "Nanocapsue-Mediated Dietary

**Funded**
Reynolds, Lawrence P. (Senior Personnel:), Caton, Joel (Principal:), Dahlen, Carl (Co-Principal:), McLean, Kyle (Other: Graduate Student), Borowicz, Pawel (Senior Personnel:), Neville, Brian (Senior Personnel:), "Role of Endogenous Retroviruses and Nutritional Management in Placental Syncytium Formation during Early Gestation," Sponsored by National Institute of Food and Agriculture, U.S. Department of Agriculture, Federal, $150,000.00. (2015 - 2017).

**Funded**
Ward, Alison (Principal:), Borowicz, Pawel (Co-Principal:), "Generation of preliminary data for NIH “Trophoblast Differentiation and Function (R21)” grant proposal," Sponsored by NDSU RCA, $2,600.00. (December 12, 2016 - June 15, 2017).

**Not Awarded**
Ward, Alison (Principal:), Reynolds, Lawrence (Co-Principal:), Caton, Joel (Supporting: Collaborator), Dahlen, Carl (Supporting: Collaborator), Borowicz, Pawel (Supporting: Collaborator), "Effect of maternal nutrition on developmental programming of the placenta in early gestation," Sponsored by USDA-NIFA, Federal, $150,000.00. (January 2017 - December 2019).

**Not Awarded**
Borowicz, Pawel (Principal:), "Acquisition of LSM 880 NLO with Airyscan fast microscopy system for animal research," Sponsored by NIH, Federal, $746,997.00. (February 1, 2017 - February 1, 2019).

**Not Awarded**

Carlin, Kasey R. (Associate Professor)

**Funded**
Carlin, Kasey (Supporting:), Swanson, Kendall (Principal:), Vonnahme, Kimberly (Co-Principal:), "The impact of supplemental leucine to neonatal calves on nitrogen balance and metabolic signaling associated with protein accretion," Sponsored by USDA-NIFA-AFRI, $150,000.00. (2017 - Present).

**Funded**

**Funded**

**Funded**

**Not Awarded**
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by beef carcass size and season," Sponsored by USDA-NIFA-AFRI, Federal, $457,185.00. (2016 - Present).

**Not Awarded**
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by carcass size," Sponsored by Minnesota Beef Council, State, $39,860.00. (2016 - Present).
Not Awarded
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by carcass size," Sponsored by National Cattlemen's Beef Association, $45,464.00. (2016 - Present).

Not Awarded
Carlin, Kasey (Co-Principal:), Vonnahme, Kimberly (Principal:), Swanson, Kendall (Co-Principal:), "Understanding the Foundation of Marbling in Beef," Sponsored by North Dakota Beef Commission, $165,645.00. (2017 - 2019).

Not Awarded

Not Awarded
Carlin, Kasey (Supporting:), Reed, DeMetris (Principal:), Berg, Eric (Co-Principal:), "Will increasing field pea concentrate (Pisum sativum) level in high-concentrate finishing diets improve growth performance, carcass traits, and palatability attributes in Brahman steers?" Sponsored by National Cattlemen's Beef Association, Other, $40,000.00. (2016 - 2017).

Caton, Joel S. (Professor)

Funded

Funded
Caton, Joel (Senior Personnel: Member of the Coordinating committee), "National Animal Nutrition Program," Sponsored by USDA CSREES, Hatch. (October 2015 - September 2020).

Funded
Caton, Joel (Principal:), "Enhancing Management, Production, and Sustainability of Grazing Ruminants in Extensive Landscapes," Sponsored by Hatch, 1757, Regional Project W2012. (March 2015 - September 2019).

Funded
Reynolds, Lawrence (Co-Principal:), Caton, Joel (Co-Principal:), "Regulation of fertility in ruminant livestock," Sponsored by ND Hatch Funds. (2014 - 2018).

Funded
Caton, Joel (Principal:), Greseth, Nathan (Co-Principal:), Crouse, Matthew (Co-Principal:), "Neutral and Acidic Amino Acid Transporters in Bovine Utero-placental tissues from Day 16 to 50 of gestation," Sponsored by SBARE, $5,675.00. (February 2017 - March 2018).

Funded
Reynolds, Lawrence P. (Senior Personnel:), Caton, Joel (Principal:), Dahlen, Carl (Co-Principal:), McLean, Kyle (Other: Graduate Student), Borowicz, Pawel (Senior Personnel:), Neville, Brian (Senior Personnel:), "Role of Endogenous Retroviruses and Nutritional Management in Placental Syncytium Formation during Early Gestation," Sponsored by National Institute of Food and Agriculture, U.S. Department of Agriculture, Federal, $150,000.00. (2015 - 2017).

Funded
Caton, Joel (Senior Personnel:), Dahlen, Carl (Principal:), Neville, Bryan (Senior Personnel:), Schauer, Chris (Senior Personnel:), "Improving Beef Cattle Reproduction and Nutritional Management," Sponsored by Hatch, 1745, (October 2012 - September 2017).
Funded
Caton, Joel (Principal:), Crouse, Matthew (Co-Principal:), "Maternal Nutrition and Embryonic Survival: Nutrient Transport to the Embryo during day 16 to 50 of gestation," Sponsored by SBARE, $18,983.00. (January 2016 - June 2017).

Funded
Caton, Joel (Co-Principal:), McLean, Kyle (Co-Principal:), Dahlen, Carl (Co-Principal:), "Fetal and Placental Development throughout the First Trimester," Sponsored by SBARE, $6,298.00. (March 2016 - February 2017).

Funded
Caton, Joel (Principal:), Bjertness, Jena, "Maternal and postnatal endocrine and metabolic profiles in sheep based on maternal nutritional plane and rumen-protected arginine supplementation during gestation," $6,240.00. (March 2015 - February 2017).

Not Awarded
"Agronomic Selenium Biofortification to Promote Animal Health, Food Quality, and Food Security," Sponsored by Oregon State University, State, $600,000.00.

Not Awarded
Swanson, Kendall (Principal:), Caton, Joel (Co-Principal:), "Development of a bioassay model to examine precision nutritional supplementation programs to enhance fetal development in ewes," Sponsored by NDSU Precision Ag Funds, $80,200.00. (2017 - Present).

Not Awarded

Not Awarded
Ward, Alison (Principal:), Reynolds, Lawrence (Co-Principal:), Caton, Joel (Supporting: Collaborator), Dahlen, Carl (Supporting: Collaborator), Borowicz, Pawel (Supporting: Collaborator), "Effect of maternal nutrition on developmental programming of the placenta in early gestation," Sponsored by USDA-NIFA, Federal, $150,000.00. (January 2017 - December 2019).

Not Awarded
Ward, Alison (Principal:), Caton, Joel (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), "Implementing a ontological pathway analysis pipeline for next-generation sequencing data at NDSU," Sponsored by NDSU Bioinformatics Seed Grant, North Dakota State University, $21,734.00. (2017 - 2018).

Not Awarded
Ward, Alison (Principal:), Crouse, Matthew S (Co-Principal:), Caton, Joel (Co-Principal:), "The foundation for optimal muscle development and carcass quality starts during gestation," Sponsored by North Dakota Beef Commission, State, $94,820.00. (2017 - 2018).

Not Awarded
Ward, Alison (Principal:), Vonnahme, Kimberly (Co-Principal:), Caton, Joel (Co-Principal:), "The effect of maternal over and under nutrition during pregnancy on epigenetic developmental programming of diabetes and obesity," Sponsored by Sanford Health Collaborative Seed Grant, $98,800.00. (2016 - 2017).

Christenson, Lisa A. (Assistant Professor)

Funded
Christenson, Lisa (Principal:), "NDSU Development Foundation Libraries Endowment - Acquisition of VTNE review materials for permanent residence in the NDSU Library.," Sponsored by NDSU Development Foundation, North Dakota State University, $600.00. (2016 - 2017).
Funded
Berg, Erika (Co-Principal:), Christenson, Lisa (Co-Principal:), "Animal Reproduction Models," North Dakota State University, $1,000.00. (March 7, 2017).

Not Awarded

Not Awarded
Wagner, Sarah (Co-Principal:), "Travel to the Annual Conference of the American Association of Bovine Practitioners for majors in Veterinary Technology," Sponsored by NDSU Development Foundation, Local, $1,000.00. (2017 - Present).

Not Awarded

Dahlen, Carl R. (Associate Professor)

Funded

Funded
Dahlen, Carl, Undi, Michael, "Development and Deployment of a Mobile Cow Command Center for Precision Management of Beef Cattle," Sponsored by NDAES Precision Ag Grant Program, $80,000.00. (November 15, 2017 - June 30, 2019).

Funded
Dahlen, Carl (Principal:), Negrin Pereira, N, Neville, B W, "Impact of Injectable Trace Mineral Supplements in Embryo Transfer Programs," Sponsored by Multimin, USA, $175,000.00. (2016 - 2018).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Ominski, Kim (Principal:), Vonnahme, Kimberly (Principal:), Reynolds, Lawrence (Co-Principal:), Bauer, Marc (Co-Principal:), Dahlen, Carl (Co-Principal:), Stokka, Gerald (Co-Principal:), Ward, Alison (Co-Principal:), "Impact of Winter Feeding and Vaccination Strategies on Carcass Outcomes in Beef Cattle," Sponsored by National Sciences and Engineering Council; Manitoba Beef and Forage Initiatives, Inc. Manitoba Beef Producers, Federal, $67,085.00. (2015 - 2017).

Funded
Reynolds, Lawrence P. (Senior Personnel:), Caton, Joel (Principal:), Dahlen, Carl (Co-Principal:), McLean, Kyle (Other: Graduate Student), Borowicz, Pawel (Senior Personnel:), Neville, Brian (Senior Personnel:), "Role of Endogenous Retroviruses and Nutritional Management in Placental Syncytium Formation

**Funded**
Caton, Joel (Senior Personnel:), Dahlen, Carl (Principal:), Neville, Bryan (Senior Personnel:), Schauer, Chris (Senior Personnel:), "Improving Beef Cattle Reproduction and Nutritional Management," Sponsored by Hatch, 1745, (October 2012 - September 2017).

**Funded**

**Funded**
Swanson, Kendall (Co-Principal:), Dahlen, Carl (Principal:), "Use of electronic monitoring for precision management of cow calf and cattle feeding operations," $95,890.00. (May 1, 2016 - July 1, 2017).

**Not Awarded**
Ward, Alison (Principal:), Reynolds, Lawrence (Co-Principal:), Caton, Joel (Supporting: Collaborator), Dahlen, Carl (Supporting: Collaborator), Borowicz, Pawel (Supporting: Collaborator), "Effect of maternal nutrition on developmental programming of the placenta in early gestation," Sponsored by USDA-NIFA, Federal, $150,000.00. (January 2017 - December 2019).

**Not Awarded**
Ward, Alison (Principal:), Caton, Joel (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), "Implementing a ontological pathway analysis pipeline for next-generation sequencing data at NDSU," Sponsored by NDSU Bioinformatics Seed Grant, North Dakota State University, $21,734.00. (2017 - 2018).

**Not Awarded**

**Hoffman, Travis (Assistant Professor)**

**Funded**

**Funded**
Hoffman, Travis W. (Supporting: Technical Assistance), Holler, Larry (Co-Principal:), Holler, Sue (Co-Principal:), Underwood, Keith R. (Supporting:), "Comparison of meat composition of lambs affected with GM1 gangliosidosis to retail lamb," Sponsored by National Sheep Industry Improvement Center, Private, $24,110.00. (January 1, 2017 - June 30, 2018).

**Funded**

**Currently Under Review**
Swanson, Kendall (Principal:), Hoffman, Travis (Co-Principal:), Reiners, Jessica (Other: Graduate Student), "Influence of leucine supplementation to neonatal lambs fed milk replacer on growth performance," Sponsored by ND SBARE, $12,400.00. (2017 - Present).

**Not Awarded**

Not Awarded

Not Awarded
Hanson, Erik (Co-Principal:), Hoffman, Travis (Principal:), Fausti, Scott W (Co-Principal:), "True Economic Impact of Future Value Based Marketing in the U.S. Sheep Industry," Sponsored by National Sheep Industry Improvement Center, $11,864.00. (2017).

Meehan, Miranda A. (Assistant Professor)

Funded
Meehan, Miranda (Principal:), Sedivec, Kevin (Other: Collaborator), DeSutter, Thomas (Other: Collaborator), Daigh, Aaron, Augustin, Chris (Other: Collaborator), "USDA NIFA, Hatch project 1009707: Remediation options to enhance ecosystem services of lands in North Dakota," Sponsored by USDA, NIFA, Federal, $200,000.00. (June 1, 2016 - Present).

Funded
Edwards, L M (Principal:), Williams, T (Co-Principal:), Knapp, M (Co-Principal:), Schmitz, H (Co-Principal:), Thelen, M (Co-Principal:), Ellis, C (Co-Principal:), Meyer, N (Co-Principal:), Wilson, A (Co-Principal:), Higgins, R (Co-Principal:), Meehan, Miranda (Co-Principal:), Buetow, R (Co-Principal:), "Providing the Foundation for Lasting Climate Education in the North Central Region," Sponsored by North Central Region Water Network, $89,283.00. (October 1, 2017 - September 30, 2020).

Funded
Meehan, Miranda, "Assessment of Riparian Vegetation," Sponsored by City of Fargo, Local, $57,706.00. (August 1, 2015 - June 1, 2019).

Funded
Meehan, Miranda, "North Dakota Riparian Ecological Site Description Development Project: Phase II," Sponsored by North Dakota Department of Health, State, $110,783.00. (June 1, 2016 - April 30, 2019).

Funded

Funded

Funded

Funded

Not Awarded
Norland, Jack (Principal:), Hargiss, Christina (Co-Principal:), Meehan, Miranda (Co-Principal:), "Using scenarios to inform policy interventions on land use and decisions in the Plains and Prairie Pothole LCC," Sponsored by United States Fish and Wildlife Service, Federal, $31,014.00. (October 1, 2017 - September 30, 2019).
Funded

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of Winter Feeding and Vaccination Strategies on Carcass Outcomes in Beef Cattle," Sponsored by National Sciences and Engineering Council; Manitoba Beef and Forage Initiatives, Inc. Manitoba Beef Producers, Federal, $67,085.00. (2015 - 2017).

Not Awarded
Stokka, Gerald (Principal:), James, Gaspers (Supporting:), "Understanding current rancher prevention and treatment strategies of infectious bovine keratoconjunctivitis to improve protocols to decrease herd outbreaks, improve animal welfare, reduce antibiotic use, and decrease labor costs," Sponsored by SARE (Sustainable Agriculture Research and Education), State, $150,000.00. (2017 - 2020).

Not Awarded

Not Awarded
Stokka, Gerald, Gaspers, James J (Supporting:), "Evaluation of the innate and serological immune responses to a modified live Bovine Viral Diarrhea Virus (BVDV) primary vaccination followed by boosters with killed BVDV vaccine approximately 30-45 post primary vaccination," Sponsored by Zoetis, Private, $7,650.00. (2017 - 2018).

Not Awarded
Stokka, Gerald, Gaspers, James J (Supporting:), "Evaluation to injection with exogenous bovine granulocyte colony stimulating factor on induced neutrophilia in neonatal dairy calves," Sponsored by NIFA, $115,000.00. (2017 - 2018).

Not Awarded
Stokka, Gerald L (Principal:), Gaspers, James J (Supporting:), "Evaluation to injection with exogenous bovine granulocyte colony stimulating factor on induced neutrophilia in neonatal dairy calves.," Sponsored by Precision Ag, State, $80,120.00. (2017 - 2018).

Not Awarded
Stokka, Gerald, Gaspers, James J (Supporting:), "Evaluation of cell mediated and serological immune responses to a modified live Bovine Viral Diarrhea Virus (BVDV) primary vaccination followed..."
by boosters with killed BVDV vaccine 180 and 360 days post primary vaccination," Sponsored by Zoetis, $74,168.00. (2017 - 2018).

Not Awarded
Stokka, Gerald (Principal:), Gaspers, James (Co-Principal:), "Evaluation of immune response to vaccination protocol on pregnant beef heifers and their offspring." Sponsored by Zoetis, Private, $54,448.00. (2016 - 2017).

Eck, Tate D. (Lecturer)

Funded
Hammer, Carolyn, Swanson, Tara, Eck, Tate, "AQHA International Horsemanship Camp," Sponsored by American Quarter Horse Association, $12,500.00. (March 29, 2017 - August 31, 2017).

Grazul-Bilska, Anna (Professor)

Funded

Currently Under Review
Vonnahme, Kimberly (Principal:), Grazul-Bilska, Anna (Co-Principal:), "The role of giant trophoblast cells in placental function in ewes," Sponsored by USDA-NIFA-AFR, $150,000.00. (2015 - Present).

Not Awarded

Not Awarded

Not Awarded
Reynolds, Lawrence (Other: Mentor), Grazul-Bilska, Anna (Other: Mentor), Bairagi, Soumi (Principal:), "Role of endogenous steroids on conceptus development during early pregnancy in sheep," Sponsored by National Institutes of Health, Federal, $271,456.00. (2017 - 2022).

Hammer, Carolyn (Associate Professor)

Funded

Funded
Hammer, Carolyn, Swanson, Tara, Eck, Tate, "AQHA International Horsemanship Camp," Sponsored by American Quarter Horse Association, $12,500.00. (March 29, 2017 - August 31, 2017).

Not Awarded

Hanna, Lauren (Assistant Professor)

Funded
Hanna, Lauren (Principal:), Vonnahme, Kimberly (Co-Principal:), "Genetic and epigenetic factors that most influence ewe lifetime production and product quality," Sponsored by USDA ARS Sheep Station, Federal, $24,333.18. (October 18, 2017 - September 14, 2018).

Currently Under Review
Hanna, Lauren (Co-Principal:), Morota, Gota (Co-Principal:), "Evaluation of methods to measure temperament in cattle and their impacts on predictions of genetic merit," Sponsored by USDA NIFA AFRI, Federal, $500,000.00. (2017).

Currently Under Review
Hanna, Lauren (Co-Principal:), Bhowmik, Nayan (Co-Principal:), Dahlen, Carl (Supporting:), Swanson, Kendall (Supporting:), Ward, Alison (Supporting:), "The role of leptin in the performance of commercial beef cows and developing heifers," Sponsored by SBARE, State, $10,800.00. (2017).

Not Awarded
Hanna, Lauren (Principal:), "Course scholarships for students studying quantitative genetics applied to animals," Sponsored by NDSU Development Foundation Centennial Endowment Fund, North Dakota State University, $4,905.00. (2017).

Not Awarded

Not Awarded
Hanna, Lauren (Co-Principal:), Vonnahme, Kimberly (Supporting:), Swanson, Kendall (Supporting:), Ringwall, Kris (Supporting:), "Genetic characterization of efficiency traits in the commercial beef cow herd," Sponsored by Red Angus Foundation, Private, $50,984.00. (2017).

Not Awarded
Hanna, Lauren (Co-Principal:), Swanson, Kendall (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Genetic characterization of efficiency traits in the commercial beef cow herd," Sponsored by USDA NIFA AFRI, Federal, $150,000.00. (2017).

Not Awarded
Hanna, Lauren (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), Swanson, Kendall (Co-Principal:), "Impact of frame size, feed efficiency, and reproductive performance in a commercial beef herd," Sponsored by SBARE, State, $19,500.00. (2017).

Not Awarded
Hanna, Lauren (Principal:), "Influence of maternal frame size and genetics on finishing cattle performance," North Dakota State University, $8,532.00. (2017).

Not Awarded
Hanna, Lauren (Principal:), "Investigation of whiteface udder characteristics and their inheritance," Sponsored by NDSU Development Foundation Carl A and Jean Y White Agricultural Research Fund, North Dakota State University, $1,885.00. (2017).

Not Awarded
Sun, Xin (Co-Principal:), Hanna, Lauren (Co-Principal:), Newman, David (Supporting: Collaborator), "Objective measurement of beef cattle temperament using video image analysis (VIA) technology," Sponsored by Minnesota Beef Council, Private, $26,900.00. (2017).

Not Awarded
Sun, Xin (Co-Principal:), Hanna, Lauren (Co-Principal:), "Objective measurement of beef cattle temperament using video images analysis (VIA) technology," Sponsored by American College Lab Animal Medicine Foundation, Private, $19,900.00. (2017).
Maddock, Robert (Associate Professor)

**Funded**

**Funded**

**Not Awarded**
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by beef carcass size and season," Sponsored by USDA-NIFA-AFRI, Federal, $457,185.00. (2016 - Present).

**Not Awarded**
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by carcass size," Sponsored by Minnesota Beef Council, State, $39,860.00. (2016 - Present).

**Not Awarded**
Carlin, Kasey (Co-Principal:), Maddock, Robert (Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by carcass size," Sponsored by National Cattleman's Beef Association, $45,464.00. (2016 - Present).

**Not Awarded**
Carlin, Kasey (Co-Principal:), "Relationships among post-mortem metabolism, tenderness, and juiciness as affected by beef carcass size and season," Sponsored by USDA, Federal, $457,185.00. (January 1, 2017 - December 31, 2020).

**Not Awarded**

Reynolds Ph.D., Larry (Professor)

**Funded**
Reynolds, Lawrence (Senior Personnel:), Vonnahme, Kimberly (Senior Personnel:), Ominski, Kim (Principal: University of Manitoba), "Impact of cow-calf feeding and vaccination strategies on carcass outcomes in beef cattle," Sponsored by Manitoba Agriculture, Food and Rural Initiatives, State, $261,000.00. (2015 - 2018).

**Funded**
Reynolds, Lawrence (Co-Principal:), Caton, Joel (Co-Principal:), "Regulation of fertility in ruminant livestock," Sponsored by ND Hatch Funds. (2014 - 2018).

**Funded**
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahl, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Ominski, Kim (Principal:), Vonnahme, Kimberly (Principal:), Reynolds, Lawrence (Co-Principal:), Bauer, Marc (Co-Principal:), Dahl, Carl (Co-Principal:), Stokka, Gerald (Co-Principal:), Ward, Alison (Co-Principal:), "Impact of Winter Feeding and Vaccination Strategies on Carcass Outcomes in Beef Cattle," Sponsored by National Sciences and Engineering Council; Manitoba Beef and Forage Initiatives, Inc. Manitoba Beef Producers, Federal, $67,085.00. (2015 - 2017).

Funded
Reynolds, Lawrence P. (Senior Personnel:), Caton, Joel (Principal:), Dahl, Carl (Co-Principal:), McLean, Kyle (Other: Graduate Student), Borowicz, Pawel (Senior Personnel:), Neville, Brian (Senior Personnel:), "Role of Endogenous Retroviruses and Nutritional Management in Placental Syncytium Formation during Early Gestation," Sponsored by National Institute of Food and Agriculture, U.S. Department of Agriculture, Federal, $150,000.00. (2015 - 2017).

Funded

Funded

Funded

Not Awarded
Reynolds, Lawrence (Other: Mentor), Grazul-Bilska, Anna (Other: Mentor), Bairagi, Soumi (Principal:), "Role of endogenous steroids on conceptus development during early pregnancy in sheep," Sponsored by National Institutes of Health, Federal, $271,456.00. (2017 - 2022).

Not Awarded
Ward, Alison (Principal:), Reynolds, Lawrence (Co-Principal:), Caton, Joel (Supporting: Collaborator), Dahl, Carl (Supporting: Collaborator), Borowicz, Pawel (Supporting: Collaborator), "Effect of maternal nutrition on developmental programming of the placenta in early gestation," Sponsored by USDA-NIFA, Federal, $150,000.00. (January 2017 - December 2019).

Not Awarded

Not Awarded
Ward, Alison (Principal:), Caton, Joel (Co-Principal:), Dahl, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), "Implementing a ontological pathway analysis pipeline for next-generation sequencing data at NDSU," Sponsored by NDSU Bioinformatics Seed Grant, North Dakota State University, $21,734.00. (2017 - 2018).
Sun, Xin (Rex)

**Funded**

**Funded**


**Not Awarded**
Berg, Erika (Principal:), McCourt, Mark (Supporting:), Hilmert, Clayton (Supporting:), Sun, XIN (Supporting:), Doetkott, Curt (Supporting:), "Measurement of sympathetic nervous activity in horses and humans with and without post-traumatic stress disorder," Sponsored by Horses and Humans Research Foundation, $9,989.00. (July 7, 2017).

Swanson, Kendall C. (Professor)

**Funded**
Carlin, Kasey (Supporting:), Swanson, Kendall (Principal:), Vonnahme, Kimberly (Co-Principal:), "The impact of supplemental leucine to neonatal calves on nitrogen balance and metabolic signaling associated with protein accretion," Sponsored by USDA-NIFA-AFRI, $150,000.00. (2017 - Present).

**Funded**

**Funded**
Ward, Alison (Principal:), Berg, Eric (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), Swanson, Kendall (Co-Principal:), "A biomedical model for the role of beef as a healthy alternative to a high-sugar diet during pregnancy on offspring growth and development," Sponsored by State Board of Agriculture Research & Education, State, $21,500.00. (January 2017 - December 2017).

**Funded**
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

**Funded**
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

**Funded**
Swanson, Kendall (Co-Principal:), Ominski, Kim (Principal:), Vonnahme, Kimberly (Principal:), Reynolds, Lawrence (Co-Principal:), Bauer, Marc (Co-Principal:), Dahlen, Carl (Co-Principal:), Stokka, Gerald
Funded
Swanson, Kendall (Co-Principal:), Dahlen, Carl (Principal:), "Use of electronic monitoring for precision management of cow calf and cattle feeding operations," $95,890.00. (May 1, 2016 - July 1, 2017).

Funded
Swanson, Kendall (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Role of maternal energy in beef cows," Sponsored by North Dakota Agricultural Utilization Commission, $43,260.00. (April 1, 2016 - April 1, 2017).

Currently Under Review
Swanson, Kendall (Principal:), Hoffman, Travis (Co-Principal:), Reiners, Jessica (Other: Graduate Student), "Influence of leucine supplementation to neonatal lambs fed milk replacer on growth performance," Sponsored by ND SBARE, $12,400.00. (2017 - Present).

Not Awarded
Swanson, Kendall (Principal:), Caton, Joel (Co-Principal:), "Development of a bioassay model to examine precision nutritional supplementation programs to enhance fetal development in ewes," Sponsored by NDSU Precision Ag Funds, $80,200.00. (2017 - Present).

Not Awarded

Not Awarded
Ward, Alison (Principal:), Swanson, Kendall (Co-Principal:), "Optimizing vitamin A supplementation to maximize marbling in beef cattle," Sponsored by North Dakota Beef Commission, State, $86,040.00. (2017 - 2019).

Not Awarded
Carlin, Kasey (Co-Principal:), Vonnahme, Kimberly (Principal:), Swanson, Kendall (Co-Principal:), "Understanding the Foundation of Marbling in Beef," Sponsored by North Dakota Beef Commission, $165,645.00. (2017 - 2019).

Not Awarded
Rahman, Shafiqur, Quadir, Mohi (Co-Principal:), Swanson, Kendall (Co-Principal:), Lee, Chiwon (Co-Principal:), "Fate and transport of zinc and silver nanoparticles (NPs) in livestock manure and their impacts on the environment (air and soil) and crop(s)," Sponsored by AFRI-NIFA, $499,988.00. (October 1, 2016 - September 30, 2019).

Swanson, Kendall (Co-Principal:), Brake, Derek (Principal:), "Effects of postruminal flows of amino acids on small intestinal starch digestion in cattle," $500,000.00. (January 15, 2016 - January 15, 2018).

Swanson, Kendall (Co-Principal:), Anderson, Vern (Co-Principal:), "Effects of fat level in distillers grain fed with corn or barley on steer performance, carcass quality, rumen metabolism and feeding behavior," $151,622.00. (July 1, 2014 - July 1, 2017).

Funded
Swanson, Tara (Co-Principal:), Hammer, Carolyn (Co-Principal:), Eck, Tate (Co-Principal:), "AQHA International Horsemanship Camp," Sponsored by American Quarter Horse Association, $12,500.00. (2017 - Present).
Funded
Hammer, Carolyn, Swanson, Tara, Eck, Tate, "AQHA International Horsemanship Camp," Sponsored by American Quarter Horse Association, $12,500.00. (March 29, 2017 - August 31, 2017).

Vonnahme, Kimberly A. (Professor)

Funded
Carlin, Kasey (Supporting:), Swanson, Kendall (Principal:), Vonnahme, Kimberly (Co-Principal:), "The impact of supplemental leucine to neonatal calves on nitrogen balance and metabolic signaling associated with protein accretion," Sponsored by USDA-NIFA-AFRI, $150,000.00. (2017 - Present).

Funded
Reynolds, Lawrence (Senior Personnel:), Vonnahme, Kimberly (Senior Personnel:), Ominski, Kim (Principal: University of Manitoba), "Impact of cow-calf feeding and vaccination strategies on carcass outcomes in beef cattle," Sponsored by Manitoba Agriculture, Food and Rural Initiatives, State, $261,000.00. (2015 - 2018).

Funded

Funded
Ward, Alison (Principal:), Berg, Eric (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), Swanson, Kendall (Co-Principal:), "A biomedical model for the role of beef as a healthy alternative to a high-sugar diet during pregnancy on offspring growth and development," Sponsored by State Board of Agriculture Research & Education, State, $21,500.00. (January 2017 - December 2017).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Principal:), "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Ominski, Kim (Principal:), Vonnahme, Kimberly (Principal:), Reynolds, Lawrence (Co-Principal:), Bauer, Marc (Co-Principal:), Dahlen, Carl (Co-Principal:), Stokka, Gerald (Co-Principal:), Ward, Alison (Co-Principal:), "Impact of Winter Feeding and Vaccination Strategies on Carcass Outcomes in Beef Cattle," Sponsored by National Sciences and Engineering Council; Manitoba Beef and Forage Initiatives, Inc. Manitoba Beef Producers, Federal, $67,085.00. (2015 - 2017).

Funded
Swanson, Kendall (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Role of maternal energy in beef cows," Sponsored by North Dakota Agricultural Utilization Commission, $43,260.00. (April 1, 2016 - April 1, 2017).

Currently Under Review
Currently Under Review

Currently Under Review
Vonnahme, Kimberly (Co-Principal:), "The role of giant trophoblast cells in placental function in ewes," Sponsored by NSF, $495,419.00. (2015 - Present).

Currently Under Review
Vonnahme, Kimberly (Principal:), Grazul-Bilska, Anna (Co-Principal:), "The role of giant trophoblast cells in placental function in ewes," Sponsored by USDA-NIFA-AFR, $150,000.00. (2015 - Present).

Not Awarded
Carlin, Kasey (Co-Principal:), Vonnahme, Kimberly (Principal:), Swanson, Kendall (Co-Principal:), "Understanding the Foundation of Marbling in Beef," Sponsored by North Dakota Beef Commission, $165,645.00. (2017 - 2019).

Not Awarded
Ward, Alison (Principal:), Vonnahme, Kimberly (Supporting:), Ominski, Kimberly (Supporting:), Rodas-Gonzalez, Argenis (Supporting:), "The role of maternal nutrition during gestation on epigenetic developmental programming of offspring muscle development and carcass traits in beef cattle," Sponsored by North Dakota Beef Commission, State, $76,700.00. (2017 - 2018).

Not Awarded
Ward, Alison (Principal:), Vonnahme, Kimberly (Co-Principal:), Caton, Joel (Co-Principal:), "The effect of maternal over and under nutrition during pregnancy on epigenetic developmental programming of diabetes and obesity," Sponsored by Sanford Health Collaborative Seed Grant, $98,800.00. (2016 - 2017).

Wagner, Sarah A. (Professor)

Funded

Funded

Not Awarded
Wagner, Sarah (Co-Principal:), "Topical penicillin G for the treatment of bovine digital dermatitis: efficacy and drug residues," Sponsored by American Veterinary Medical Foundation/Veterinary Pharmacology Research Foundation, Private, $13,600.00. (November 2017 - Present).

Ward, Alison (Assistant Professor)

Funded
Ward, Alison (Principal:), Berg, Eric (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), Swanson, Kendall (Co-Principal:), "A biomedical model for the role of beef as a healthy alternative to a high-sugar diet during pregnancy on offspring growth and development," Sponsored by State Board of Agriculture Research & Education, State, $21,500.00. (January 2017 - December 2017).

Funded
Swanson, Kendall (Co-Principal:), Stokka, Gerald L (Co-Principal:), Bauer, Marc (Co-Principal:), Berg, Eric (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), Ward, Alison (Co-Principal:), Vonnahme, Kimberly (Co-Principal:), "Impact of winter feeding strategies during gestation
on productivity and carcass outcomes in beef cattle: calf health through weaning," Sponsored by North Dakota State Board of Agricultural Research and Education, $18,000.00. (2016 - 2017).

**Funded**

Swanson, Kendall (Co-Principal:); Stokka, Gerald L (Co-Principal:); Bauer, Marc (Co-Principal:); Berg, Eric (Co-Principal:); Dahlen, Carl (Co-Principal:); Reynolds, Lawrence (Co-Principal:); Ward, Alison (Co-Principal:); Vonnahme, Kimberly (Principal:); "Impact of winter feeding strategies during gestation on productivity and carcass outcomes in beef cattle: Uterine blood flow to the developing calf," Sponsored by North Dakota State Board of Agricultural Research and Education, $16,400.00. (2016 - 2017).

**Funded**

Swanson, Kendall (Co-Principal:); Ominski, Kim (Principal:); Vonnahme, Kimberly (Principal:); Reynolds, Lawrence (Co-Principal:); Bauer, Marc (Co-Principal:); Dahlen, Carl (Co-Principal:); Stokka, Gerald (Co-Principal:); Ward, Alison (Co-Principal:); "Impact of Winter Feeding and Vaccination Strategies on Carcass Outcomes in Beef Cattle," Sponsored by National Sciences and Engineering Council; Manitoba Beef and Forage Initiatives, Inc. Manitoba Beef Producers, Federal, $67,085.00. (2015 - 2017).

**Funded**

Ward, Alison (Principal:), Borowicz, Pawel (Co-Principal:), "Generation of preliminary data for NIH "Trophoblast Differentiation and Function (R21)" grant proposal," Sponsored by NDSU RCA, $2,600.00. (December 12, 2016 - June 15, 2017).

**Not Awarded**

Ward, Alison (Principal:), Reynolds, Lawrence (Co-Principal:), Caton, Joel (Supporting: Collaborator), Dahlen, Carl (Supporting: Collaborator), Borowicz, Pawel (Supporting: Collaborator), "Effect of maternal nutrition on developmental programming of the placenta in early gestation," Sponsored by USDA-NIFA, Federal, $150,000.00. (January 2017 - December 2019).

**Not Awarded**

Ward, Alison (Principal:), Swanson, Kendall (Co-Principal:), "Optimizing vitamin A supplementation to maximize marbling in beef cattle," Sponsored by North Dakota Beef Commission, State, $86,040.00. (2017 - 2019).

**Not Awarded**


**Not Awarded**

Ward, Alison (Principal:), Caton, Joel (Co-Principal:), Dahlen, Carl (Co-Principal:), Reynolds, Lawrence (Co-Principal:), "Implementing a ontological pathway analysis pipeline for next-generation sequencing data at NDSU," Sponsored by NDSU Bioinformatics Seed Grant, North Dakota State University, $21,734.00. (2017 - 2018).

**Not Awarded**

Ward, Alison (Principal:), Crouse, Matthew S (Co-Principal:), Caton, Joel (Co-Principal:), "The foundation for optimal muscle development and carcass quality starts during gestation," Sponsored by North Dakota Beef Commission, State, $94,820.00. (2017 - 2018).

**Not Awarded**

Ward, Alison (Principal:), Vonnahme, Kimberly (Supporting:); Ominski, Kimberly (Supporting:); Rodas-Gonzalez, Argenis (Supporting:); "The role of maternal nutrition during gestation on epigenetic developmental programming of offspring muscle development and carcass traits in beef cattle," Sponsored by North Dakota Beef Commission, State, $76,700.00. (2017 - 2018).

**Not Awarded**
Ward, Alison (Principal:), "A biomedical model for the role of beef as a healthy alternative to a high-sugar diet during pregnancy on offspring growth and development," Sponsored by Minnesota Beef Council, State, $40,000.00. (January 2017 - May 2018).

**Not Awarded**
Ward, Alison (Principal:), "The role of vitamin A on increasing marbling in finishing cattle," Sponsored by Minnesota Beef Council, State, $21,800.00. (December 2016 - May 2018).

**Not Awarded**

**Not Awarded**

**Not Awarded**

**Not Awarded**
Ward, Alison (Principal:), "Genetic analysis software," Sponsored by The Centennial Endowment Fund (NDSU Alumni Foundation), North Dakota State University, $3,000.00. (2016 - 2017).

**Not Awarded**
Ward, Alison (Principal:), Vonnahme, Kimberly (Co-Principal:), Caton, Joel (Co-Principal:), "The effect of maternal over and under nutrition during pregnancy on epigenetic developmental programming of diabetes and obesity," Sponsored by Sanford Health Collaborative Seed Grant, $98,800.00. (2016 - 2017).

**Not Awarded**

**Deans Office, Agriculture**

Akyuz, Adnan A. (Professor of Practice)

**Not Awarded**
"Managing the Earth: Community Resilience Along the Mid-Continental Transition Zone," Sponsored by University of Minnesota, State, $13,000.00.

**Microbiological Sciences**

Bergholz, Peter W. (Assistant Professor)

**Funded**
Jansen, Rick (Co-Principal:), Bergholz, Peter (Co-Principal:), Day, Stephanie (Co-Principal:), "Approach for identifying Genome-wide Interactions important in pathogenicity of Escherichia coli," Sponsored by NDSU Bioinformatics Seed Grant Program, North Dakota State University, $40,000.00. (August 2017 - Present).

**Funded**

Not Awarded
Sweetman, Jon (Co-Principal:), Bergholz, Peter (Senior Personnel:), Patrick, Hanington (Principal: University of Alberta), Dörte, Köster (Senior Personnel: Hutchinson Environmental Sciences Ltd.), "Monitoring past and present environmental changes in aquatic ecosystems using DNA from lake sediments: Developing the capability for obtaining long-term information on parasite communities in Alberta lakes," Sponsored by Alberta Innovates - Energy and Environment Solutions, Other, $499,410.00. (2016 - 2019).

Not Awarded
Jansen, Rick (Co-Principal:), Bergholz, Peter (Co-Principal:), Day, Stephanie (Co-Principal:), "Approach for Identifying Genome-wide Interactions important in pathogenicity of Escherichia coli," Sponsored by NDSU Bioinformatics Seed Grant Program, North Dakota State University, $40,000.00. (2017).

Bergholz, Teresa (Assistant Professor)

Funded
Bergholz, Teresa (Principal:), Pruess, Birgit (Co-Principal:), "Elucidation of environmental factors that influence attachment of foodborne pathogens to biotic and abiotic surfaces," Sponsored by USDA AFRI Food Safety Foundational Program, Federal, $149,561.00. (January 2015 - January 2018).

Funded

Not Awarded
"Evaluation of Sanitizers for Fresh Produce to Increase Safety and Shelf-life," Sponsored by ND Department of Agriculture, State, $86,135.00.

Not Awarded

Dorsam, Glenn P. (Associate Professor)

Not Awarded
Nawarathna, Dharmakeerthi (Principal:), Dorsam, Glenn, "Integrated dielectrophoretic and plasmonic platform for miRNA based pancreatic cancer detection at point-of-care," Sponsored by National Institute of Health, North Dakota State University, $387,500.00. (September 1, 2017 - August 30, 2019).

Not Awarded
Nawarathna, Dharmakeerthi (Principal:), Liu, Guodong (Co-Principal:), Dorsam, Glenn (Co-Principal:), "Scalable dielectrophoretic mRNA injection into single T-cells for the production of therapeutic T-cells without cell product variability," $200,000.00. (January 1, 2017 - December 30, 2018).


Gibbs, Penelope S. (Associate Professor)

Not Awarded
Choi, Yongki (Co-Principal:), Pruess, Birgit (Co-Principal:), Gibbs, Penelope (Co-Principal:), Stafslien, Shhane (Co-Principal:), Carson, Paul (Co-Principal:), Kelly, Gina Aalgaard (Co-Principal:), Croll, Andrew (Co-Principal:), May, Sylvio (Co-Principal:), Hobbie, Erik (Co-Principal:), "Center for Pathogen
Detection and Management," Sponsored by NDSU Grand Challenges RFP, North Dakota State University, $1,500,060.00. (January 1, 2016 - December 31, 2019).

McEvoy, John (Professor)

Funded
McEvoy, John (Principal:), "The role of host glycans in Cryptosporidium development," Sponsored by National Institutes of Health, Federal, $483,286.00. (July 1, 2016 - June 30, 2019).

Funded

Not Awarded
Khan, Eakalak (Principal:), Sivaguru, Jayaraman (Co-Principal:), Simsek, Senay (Co-Principal:), Stone, James (Co-Principal:), Ndiva Mongoh, Mafany (Co-Principal:), Ulven, Chad (Senior Personnel:), Yadav, Om (Senior Personnel:), McEvoy, John (Senior Personnel:), Quadir, Mohi (Senior Personnel:), "INFEWS/T3: Innovative Solutions to Attenuate Fracturing Effects through Technology (InSaFETy)," Sponsored by National Science Foundation, Federal, $2,999,999.00. (November 1, 2016 - October 31, 2019).

Pruess, Birgit (Professor)

Funded
Pruess, Birgit M (Principal: Supervise and co-ordinate the project), Stafslien, Shane J (Co-Principal: develop the materials at RCA), Schroeder, Meredith (Senior Personnel: perform the experiments in the Pruess lab), "Development of novel anti-microbial materials for clinical and food processing applications," Sponsored by ND Department of Commerce, State, $100,000.00. (June 15, 2016 - December 15, 2018).

Funded

Funded
Pruess, Birgit M (Principal:), "Seed grant," Sponsored by Research and Creative Activities, NDSU, $3,000.00. (November 10, 2017 - May 31, 2018).

Funded
Bergholz, Teresa (Principal:), Pruess, Birgit (Co-Principal:), "Elucidation of environmental factors that influence attachment of foodborne pathogens to biotic and abiotic surfaces," Sponsored by USDA AFRI Food Safety Foundational Program, Federal, $149,561.00. (January 2015 - January 2018).

Funded
Pruess, Birgit, Stafslien, Shane J (Co-Principal: development of the materials at RCA), "Improvement of novel biofilm inhibiting materials and application in food processing," Sponsored by Agricultural Products and Utilization Commission, State, $74,787.00. (November 1, 2015 - June 30, 2017).

Not Awarded
Choi, Yongki (Co-Principal:), Pruess, Birgit (Co-Principal:), Gibbs, Penelope (Co-Principal:), Stafslien, Shiane (Co-Principal:), Carson, Paul (Co-Principal:), Kelly, Gina Aalgaard (Co-Principal:), Croll, Andrew (Co-Principal:), May, Sylvio (Co-Principal:), Hobbie, Erik (Co-Principal:), "Center for Pathogen Detection and Management," Sponsored by NDSU Grand Challenges RFP, North Dakota State University, $1,500,060.00. (January 1, 2016 - December 31, 2019).


Pruess, Birgit M (Principal:), "Cooperative Sponsorship Committee, NDSU," $550.00. (October 20, 2017).

Ramamoorthy, Sheela (Associate Professor)

Funded
Voronov, Andriy (Principal:). Ramamoorthy, Sheela (Co-Principal:), Stafslien, Shane (Co-Principal:), "Polymeric Vaccine Adjuvants Against Swine Influenza," Sponsored by ND Agricultural Product Utilization Commission, State, $87,792.00. (April 1, 2015 - September 30, 2017).
Plant Pathology

Brueggeman, Robert S. (Associate Professor)

**Funded**
Brueggeman, Robert (Principal:), Sponsored by American Malting Barley Association, $18,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by American Malting Barley Association, $24,480.00. (2017 - Present).

**Funded**
Liu, Zhaohui, Brueggeman, Robert, Sponsored by American Malting Barley Association, $5,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Co-Principal:), Friesen (Principal:), Sponsored by Montana Wheat and Barley Commission, $32,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Co-Principal:), Sponsored by National Science Foundation, CBET, $359,401.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by National Science Foundation-CAREER, $623,363.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by North Dakota Barley Council, $25,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by North Dakota Barley Council, $36,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by SBARE, $20,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by USDA-ARS, $100,000.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by USDA-ARS USWBSI, $30,281.00. (2017 - Present).

**Funded**
Brueggeman, Robert (Principal:), Sponsored by USDA-ARS USWBSI, $36,956.00. (2017 - Present).

**Funded**
Pasche, Julie (Principal:), Brueggeman, Robert (Co-Principal:), "Population structure and aggressiveness of Aphanomyces euteiches on field pea in North Dakota," Sponsored by North Dakota Department of Agriculture, State, $115,341.00. (October 1, 2016 - September 30, 2018).

**Funded**
Ganesh Pillai, Rajani (Senior Personnel:), Bezbaruah, Achintya (Principal:), Brueggeman, Robert (Co-Principal:), "Center for Technology Research for Agricultural Food Safety and Security under Changing Global Climate," Sponsored by North Dakota State University Office of Research and Creative Activity, North Dakota State University, $40,000.00. (September 2016 - June 2017).

**Funded**
Liu, Zhaohui (Principal: Management and supervising), Brueggeman, Robert, "Bacterial Leaf Streak (BLS) of Barley," Sponsored by American Malting Barley Association, Private, $5,000.00. (July 1, 2016 - June 30, 2017).

**Currently Under Review**
Colbert, Christopher (Co-Principal:), Bezbaruah, Achintya (Principal:), Brueggeman, Robert (Co-Principal:), Katti, Kalpana (Co-Principal:), Katti, Dinesh (Co-Principal:), "Nano-enabled Technologies for Nutrient Recovery from Waters, Nutritive and Resilient Agriculture, and Bioenergy Production," Sponsored by National Science Foundation, Federal, $2,499,937.00. (October 1, 2017 - September 30, 2022).

**Not Awarded**
"Coordination of the NABSEN and Collaborative Screening of Western US Barley Germplasm," Sponsored by Agriculture Research Service, Federal, $15,688.00.

**Not Awarded**

**Not Awarded**
"Genomic Discovery and Assisted Breeding to Improve Barley for Core and Niche Environments," Sponsored by University of Minnesota, State, $284,285.00.

**Not Awarded**

**Not Awarded**
"Rpg4-mediated Ug99 Resistance in Barley: PTI Priming of Integrated Decoy Elicited ETI," Sponsored by NIFA, Federal, $403,244.00.

Brueggeman, Robert (Principal:), Sponsored by American Malting Barley Association, $18,000.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by American Malting Barley Association, $18,000.00. (2016 - Present).

Brueggeman, Robert (Co-Principal:), Friesen, T (Principal:), Sponsored by Montana Wheat and Barley Commission, $32,000.00. (2016 - Present).

Brueggeman, Robert (Principal:), "National Science Foundation," Sponsored by CAREER, $623,363.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by North Dakota Barley Council, $11,359.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by North Dakota Barley Council, $36,000.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by NSF-ND EPScRoR, $16,017.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by SBARE, $15,957.00. (2016 - Present).

Brueggeman, Robert (Principal:), Sponsored by USDA-ARS, $100,000.00. (2016 - Present).
Brueggeman, Robert (Principal:), Sponsored by USDA-ARS USWBSI, $67,172.00. (2016 - Present).

**Not Awarded**


**Not Awarded**

Kilina, Svetlana (Principal:), Hobbie, Erik (Co-Principal:), Voronov, Andriy (Co-Principal:), Bezbaruah, Achintya (Co-Principal:), Brueggeman, Robert (Co-Principal:), Raszylev, Bakhtiyor (Senior Personnel:), Sun, Wenfang (Senior Personnel:), Sinha, Sangita (Senior Personnel:), Katti, Kalpana (Senior Personnel:), "NRT-INFEWS: Graduate training in material science bridging design of energy materials with environmental studies of their effects on plants and water," Sponsored by NSF, Federal, $3,000,000.00. (September 1, 2017 - August 31, 2022).


**Del Rio Mendoza, Luis E. (Professor)**

**Funded**


**Funded**


**Funded**


**Funded**


**Funded**


**Funded**


**Funded**


**Funded**

Not Awarded

Not Awarded
"Improving Resistance to Sclerotinia Sclerotiorum in Spring Canola," Sponsored by Agriculture Research Service, Federal, $81,474.00.

Not Awarded


Underwood, W. R. (Principal:), Del Rio Mendoza, Luis (Co-Principal:), "Leveraging Arabidopsis genomic resources and comparative genomics with canola to identify and clone genes for quantitative," Sponsored by USDA-ARS Sclerotinia Initiative, $0.00. (2017).

Friskop, Andrew J. (Assistant Professor)

Funded
Friskop, Andrew, "Evaluation of Foliar Fungicides as Outlined in Protocol," Sponsored by BASF, $9,000.00. (April 1, 2017 - December 31, 2019).

Funded
Friskop, Andrew, Knodel, Janet, "Corn Disease Survey," Sponsored by North Dakota Dept of Ag, $10,866.00. (July 1, 2017 - December 31, 2018).

Funded
Markell, Samuel (Co-Principal:), Knodel, Janet, Friskop, Andrew, Ostrander, J, "Great Plains Diagnostic Network," Sponsored by USDA – NIFA via Kansas State University, $32,000.00. (September 1, 2017 - August 31, 2018).

Funded
Friskop, Andrew (Principal:), "Identification and Management of Corn Disease," Sponsored by North Dakota Corn Utilization Council, $15,000.00. (July 1, 2017 - June 30, 2018).

Funded
Friskop, Andrew (Principal:), "Risk Assessment and Management Strategies for Stripe Rust," Sponsored by North Dakota State Board of Agricultural Research and Education, $14,000.00. (July 1, 2017 - June 30, 2018).
Funded

Funded

Funded
Friskop, Andrew (Principal:), "Development and Distribution of Educational Material on Scab and Mycotoxins," Sponsored by US Wheat and Barley Scab Initiative, $46,207.00. (May 1, 2017 - April 30, 2018).

Funded

Knodel, Janet (Co-Principal:), Friskop, Andrew, "2016 Corn Commodity Survey in North Dakota," Sponsored by North Dakota Department of Agriculture, $10,886.00. (2017 - Present).


Friskop, Andrew, Knodel, Janet, Ostrander, Jesse (Co-Principal:); McGinnis, Esther, Thostenson, Andrew (Co-Principal:), "Extension Integrated Pest Management (IPM) Program in North Dakota – Year 1 of 3," Sponsored by CPPM EIP USDA NIFA, Federal, $172,134.00. (September 1, 2017 - August 31, 2018).

Green, Andrew (Principal:); Friskop, Andrew (Co-Principal:); Rasmussen, Jack (Co-Principal:), "Screening for Stripe Rust Resistance in ND Germplasm," Sponsored by SBARE, $9,789.00. (July 2017 - July 2018).

Friskop, Andrew (Co-Principal:); Knodel, Janet (Principal:), "Corn Disease Survey," Sponsored by NDDA, $10,866.00. (July 1, 2016 - June 30, 2017).

Friskop, Andrew (Co-Principal:); Knodel, Janet (Principal:), "Evaluating Management Tools for Cereal Aphids and Barley Yellow Dwarf Virus on Wheat in North Dakota," Sponsored by North Dakota Wheat Commission, $20,570.00. (July 1, 2016 - June 30, 2017).

Friskop, Andrew (Principal:), "Identification and Management of Corn Disease," Sponsored by North Dakota Corn Council Utilization Council, $14,700.00. (July 1, 2016 - June 30, 2017).

Friskop, Andrew (Principal:); Acevedo, Maricelis (Co-Principal:), "Risk Assessment and Management Strategies for Stripe Rust," Sponsored by North Dakota State Board of Agricultural Research and Education, $14,000.00. (July 1, 2016 - June 30, 2017).

Friskop, Andrew (Principal:), "Risk Assessment and Management Strategies for Stripe Rust," Sponsored by North Dakota Wheat Commission, $4,666.00. (July 1, 2016 - June 30, 2017).


Friskop, Andrew (Principal:), "Evaluation of Seed Treatment and Foliar Fungicide in ND Field Crops," Sponsored by BASF Wyandotte Corporation, $18,000.00. (April 1, 2016 - April 30, 2017).
Gudmestad, Neil C. (Professor)

Funded

Funded
Gudmestad, Neil (Co-Principal:), "Determining the Impact of Fungicides on the Control of Potato Psyllid using Beauveria bassiana," Sponsored by NE Potato Development Committee, $33,591.00. (2017 - Present).

Funded

Funded
Thompson, Asunta (Co-Principal:), Gudmestad, Neil (Co-Principal:), "Development of multipurpose potato cultivars with enhanced quality, disease and pest resistance," Sponsored by USDA-NIFA, Federal, $55,100.00. (2017 - Present).

Funded

Funded
Gudmestad, Neil (Co-Principal:), "Identifying Resistant Potatoes and Developing Efficient Quantification Assays for Management of Nematode Diseases," Sponsored by USDA/AMS/ND Dept Ag, $21,865.00. (2017 - Present).

Funded
Gudmestad, Neil (Co-Principal:), "Safeguarding the US Seed Potato Industry Against Emerging Seed Potato-Borne Pathogens that Impact Trade and Farm Viability," Sponsored by USDA/APHIS/ARS, $81,625.00. (2017 - Present).

Funded
Gudmestad, Neil (Co-Principal:), "Support of irrigated potato research in North Dakota in 2015," Sponsored by Northern Plains Potato Growers Association/MN Area II Potato Growers, $45,000.00. (2017 - Present).

Funded

Funded
Gudmestad, Neil (Co-Principal:), "Vine Desiccation as an Effective Disease Management Strategy to Control Verticillium Wilt of Potato," Sponsored by MN Area II, $34,000.00. (2017 - Present).

Funded

Funded

Funded

Funded

Not Awarded

Not Awarded
"Management of Potato Mop Top Tuber Necrosis Using Cultivars that do not Express the Disease," Sponsored by ND Department of Agriculture, State, $48,915.00.

Not Awarded
"Metam Sodium Control of Verticillium Wilt in High OM and Fine-textured Soils," Sponsored by Northern Plains Potato Growers Association, Federal, $35,000.00.

Not Awarded

Gudmestad, Neil (Co-Principal), "Biological and economic impacts of emerging potato tuber necrotic viruses and the development of comprehensive and sustainable management practices," Sponsored by USDA/NIFA/Cornell University, $143,754.00. (2017 - Present).

Gudmestad, Neil (Co-Principal), "Gifts and grants from various agricultural companies," $290,735.00. (2017 - Present).


Not Awarded
Robinson, Andrew (Principal:), Gudmestad, Neil (Co-Principal:), "Improving potato plant health through nutrient and fungicide management.,” Sponsored by Specialty Crop Block Grant, North Dakota, $104,197.00. (October 2017 - August 2019).

Khan, Mohamed F. R. (Professor)

Funded
Khan, Mohamed, "Detection, quantification, and sensitivity of airborne conidia of Cercospora beticola," Sponsored by North Dakota State Board of Agricultural Research and Education, $9,311.00. (2017 - Present).

Funded
Khan, Mohamed, "Determine impact of different seed treatments (Kabina, Vibrance, Systemia) on plant stand, control of R. solani, and sugarbeet yield and quality; and the need for post-application fungicides for treated seeds," Sponsored by Western Sugar Cooperative, $12,500.00. (2017 - Present).

Funded
Khan, Mohamed, "Evaluating fungicides for controlling diseases of sugarbeet,” Sponsored by Gift funds from chemical and sugar companies, $216,000.00. (2017 - Present).

Funded
Khan, Mohamed, "Improving disease management and agronomic practices of sugarbeet," Sponsored by Sugarbeet Research and Education Board of Minnesota and North Dakota, $58,349.00. (2017 - Present).

Funded

Funded
Khan, Mohamed, "Sugarbeet extension programs and program maintenance," Sponsored by Sugarbeet Research and Education Board of Minnesota and North Dakota, $90,200.00. (2017 - Present).

Funded
Secor, Gary, Bolton, M., Khan, Mohamed, "Monitory sensitivity of Cercospora beticola to folieer fungicides in sugarbeet fields of Minnesota and North Dakota.,” Sponsored by Sugar Beet Research and Education Board of MN and ND, $29,296.00. (2016 - Present).

Funded
**Not Awarded**

**Not Awarded**


Khan, M., "Evaluating Fungicides for Controlling Diseases of Sugarbeet,” Sponsored by Gift Funds From Chemical and Sugar Companies, $146,000.00. (2016 - Present).


Knodel, Janet J. (Associate Professor)

**Funded**

**Funded**

**Funded**
Knodel, Janet (Co-Principal:), Varenhorst, Michaud, "Efficacy and Economics of Insecticide Seed Treatments for Management of Wireworms and Seed Corn Maggots in Sunflowers," Sponsored by National Sunflower Association, $40,000.00. (2017 - Present).

**Funded**
Knodel, Janet (Co-Principal:), "Great Plains Diagnostic Network, National Plant Diagnostic Center Laboratories for Plant Disease and Pest Diagnosis & Surveillance," Sponsored by USDA / Kansas State University, $29,091.00. (2017 - Present).

**Funded**

**Funded**


**Funded**

Friskop, Andrew, Knodel, Janet, "Corn Disease Survey," Sponsored by North Dakota Dept of Ag, $10,866.00. (July 1, 2017 - December 31, 2018).

**Funded**

Markell, Samuel (Principal:), Knodel, Janet, "Pest information platform for extension and education (iPIPE) paradigm shifts in information management and food security," Sponsored by iPIPE – NIFA – AFRI Sunflower Crop Component year 2, $38,870.00. (March 1, 2017 - December 31, 2018).

**Funded**


**Funded**

Markell, Samuel (Co-Principal:), Knodel, Janet, Friskop, Andrew, Ostrander, J, "Great Plains Diagnostic Network," Sponsored by USDA – NIFA via Kansas State University, $32,000.00. (September 1, 2017 - August 31, 2018).

**Funded**

Knodel, Janet (Principal:), Calles-Torrez, Veronica (Co-Principal:), Boetel, Mark (Co-Principal:), "Evaluation of Bt Traits in Corn Hybrids for Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Utilization Council, Other, $27,384.39. (July 2017 - June 2018).

**Funded**

Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $11,010.00. (July 2017 - June 2018).

**Funded**


**Funded**


**Funded**


**Funded**


**Funded**

Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $33,580.00. (July 2016 - June 2017).

**Not Awarded**

Not Awarded
"Soybean Entomology in the North Central Region: Management and Outreach for New and Existing Pests," Sponsored by South Dakota State University, State, $40,000.00.

Knodel, Janet (Co-Principal:), Friskop, Andrew, "2016 Corn Commodity Survey in North Dakota," Sponsored by North Dakota Department of Agriculture, $10,886.00. (2017 - Present).

Knodel, Janet (Principal:), "2017 Wheat Pest Survey in North Dakota," Sponsored by North Dakota Department of Agriculture, $9,500.00. (2017 - Present).


Knodel, J., Beauzay, P. B., "Corn Insecticide Trials," Sponsored by Bayer CropScience, $4,000.00. (2016 - Present).


Friskop, Andrew, Knodel, Janet, Ostrander, Jesse (Co-Principal:), McGinnis, Esther, Thostenson, Andrew (Co-Principal:), "Extension Integrated Pest Management (IPM) Program in North Dakota – Year 1 of 3," Sponsored by CPPM EIP USDA NIFA, Federal, $172,134.00. (September 1, 2017 - August 31, 2018).


Pasche, Julie, Markell, Samuel (Co-Principal:), Knodel, Janet, "Pulse Crop Working Group 2017," Sponsored by North Central IPM Center (USDA-NIFA via University of Illinois), $0.00. (March 1, 2017 - February 1, 2018).


Friskop, Andrew (Co-Principal:), Knodel, Janet (Principal:), "Corn Disease Survey," Sponsored by NDDA, $10,866.00. (July 1, 2016 - June 30, 2017).

Friskop, Andrew (Co-Principal:), Knodel, Janet (Principal:), "Evaluating Management Tools for Cereal Aphids and Barley Yellow Dwarf Virus on Wheat in North Dakota," Sponsored by North Dakota Wheat Commission, $20,570.00. (July 1, 2016 - June 30, 2017).

Knodel, Janet, Markell, Samuel (Co-Principal:), "Management of Soybean Aphids and Interaction with Soybean Cyst Nematode," Sponsored by North Dakota Soybean Council, $0.00. (July 1, 2016 - June 30, 2017).

Knodel, Janet, Markell, Samuel (Co-Principal:), Helms, Ted, Beauzay, P, "Management of Soybean Aphids and Interaction with Soybean Cyst Nematode," Sponsored by North Dakota Soybean Council, $0.00. (July 1, 2016 - June 30, 2017).

Liu, Zhaohui (Assistant Professor)

Funded
Liu, Zhaohui, Brueggeaman, Robert, Sponsored by American Malting Barley Association, $5,000.00. (2017 - Present).

Funded
Liu, Zhaohui, Sponsored by Monsanto, $5,727.00. (2017 - Present).

Funded
Liu, Zhaohui, Sponsored by ND State Board of Agriculture Research and Education and ND Wheat Commission, $26,159.00. (2017 - Present).

Funded
Liu, Zhaohui, Sponsored by ND Wheat Commission, $30,000.00. (2017 - Present).

Funded
Liu, Zhaohui, Zhong, Shaobin, Sponsored by Indigo, $12,000.00. (2016 - Present).

Funded

**Funded**

Liu, Zhaohui (Principal: Management and supervising), Brueggeman, Robert, "Bacterial Leaf Streak (BLS) of Barley," Sponsored by American Malting Barley Association, Private, $5,000.00. (July 1, 2016 - June 30, 2017).

**Not Awarded**


**Not Awarded**


**Not Awarded**


**Not Awarded**


**Liu, Zhaohui**, Sponsored by Indigo, $2,001.00. (2016 - Present).

**Liu, Zhaohui**, Sponsored by Monsanto, $4,630.00. (2016 - Present).

**Liu, Zhaohui**, Sponsored by Monsanto, $5,896.00. (2016 - Present).

**Liu, Zhaohui**, Sponsored by ND State Board of Agriculture Research and Education, $26,666.00. (2016 - Present).


**Markell, Samuel (Associate Professor)**

**Funded**


**Funded**


**Funded**

Pasche, Julie (Co-Principal:), Markell, Samuel (Principal:), "Development of a management strategy for pea rust and a mobile App for pea diseases," Sponsored by North Dakota Department of Agriculture – Specialty Crop Block Grants, $114,997.00. (October 2017 - September 2019).

**Funded**

Funded
Markell, Samuel (Principal:), Knodel, Janet, "Pest information platform for extension and education (iPIPE) paradigm shifts in information management and food security," Sponsored by iPIPE – NIFA – AFRI Sunflower Crop Component year 2, $38,870.00. (March 1, 2017 - December 31, 2018).

Funded

Funded

Funded
Markell, Samuel (Principal:), Pasche, Julie, "Development of a management strategy for pea rust and a mobile app for pea diseases," Sponsored by ND Department of Agriculture – Specialty Crop Block Grant – USDA, $114,977.00. (October 1, 2017 - September 30, 2018).

Funded
Markell, Samuel (Co-Principal:), Knodel, Janet, Friskop, Andrew, Ostrander, J, "Great Plains Diagnostic Network," Sponsored by USDA – NIFA via Kansas State University, $32,000.00. (September 1, 2017 - August 31, 2018).

Funded

Funded
Markell, Samuel (Principal:), "Pioneer Phytophthora soybean seed treatment," Sponsored by Pioneer Hi-Bred International, $5,000.00. (July 1, 2017 - June 30, 2018).

Funded

Funded
Markell, Samuel (Principal:), Malvick, D, "Understanding stem diseases in North Dakota: An assessment and educational effort," Sponsored by North Dakota Soybean Council, $72,303.00. (July 1, 2017 - June 30, 2018).

Funded
Markell, Samuel, Pasche, Julie, Wunsch, Michael, Cooper, K, "Dry edible bean disease research," Sponsored by Northarvest Bean Growers Association, $50,208.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Wunsch, Michael, Cooper, "Dry Edible Bean Disease Research," Sponsored by Northarvest Dry Bean Growers, $50,208.00. (June 2017 - May 2018).

Funded
Markell, Samuel (Co-Principal:), Pasche, Julie, Wunsch, Michael, Cooper, K, "Dry edible bean disease research," Sponsored by State Board of Agriculture Research and Education, $18,912.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Wunsch, Michael, Cooper, "Dry Edible Bean Disease Research," Sponsored by State Board of Research and Education, $18,912.00. (June 2017 - May 2018).

Funded
Markell, Samuel (Co-Principal:), Pasche, Julie, Osorno, Juan, "Efficacy of foliar applications for the control of common bacterial blight under field conditions," Sponsored by ND Department of Agriculture – Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Osorno, Juan, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions," Sponsored by North Dakota Department of Agriculture - Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 2017 - May 2018).

Funded

Funded

Funded

Funded

Funded

Funded
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,649.00. (March 1, 2017 - February 28, 2018).

Funded

Funded
Markell, Samuel (Co-Principal:), "Pulse crop working group 2017," Sponsored by North Central IPM Center (USDA-NIFA via University of Illinois), $19,649.00. (March 1, 2017 - February 1, 2018).

Funded
Markell, Samuel (Principal:), "Service order #02052017," Sponsored by Syngenta, $1,775.00. (February 13, 2017 - December 31, 2017).
Funded

Funded

Funded

Funded

Funded

Funded

Funded
Pasche, Julie (Principal:), Markell, Samuel (Co-Principal:), Wunsch, Michael (Co-Principal:), Cooper, Kelly (Co-Principal:), "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association, Local, $48,097.00. (June 1, 2016 - May 31, 2017).

Funded
Pasche, Julie, Markell, Samuel, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight under Field Conditions," State, $12,270.00. (June 1, 2016 - May 31, 2017).

Funded
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,846.00. (March 1, 2016 - February 28, 2017).

Funded

Funded
Knodel, Janet (Principal:), Friskop, Andrew, Markell, Samuel, McGinnis, Esther, Beazuy, Ostrander, Thostenson, "Crop Protection and Pest Management EIP Grant," Sponsored by USDA NIFA Crop Protection, $530,759.00. (2017 - 2020).

Funded
Qi, L, Markell, Samuel (Co-Principal:), "Applying Genomic Tools to Accelerate Breeding for Disease Resistance in Confection Sunflower," Sponsored by National Sunflower Association, $73,717.00. (October 1, 2016 - December 31, 2018).

Funded

Funded
Pasche, Julie, Markell, Samuel (Co-Principal:), Knodel, Janet, "Pulse Crop Working Group 2017," Sponsored by North Central IPM Center (USDA-NIFA via University of Illinois), $0.00. (March 1, 2017 - February 1, 2018).


Pasche, Julie, Markell, Samuel (Co-Principal:), Wunsch, Michael, Cooper, K, Osorno, Juan, "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association, $4,520.00. (July 1, 2016 - June 30, 2017).


Markell, Samuel (Principal:), Malvick, D, "Sudden Death Syndrome Short Course: 2016," Sponsored by North Dakota Soybean Council, $18,050.00. (July 1, 2016 - June 30, 2017).

Acevedo, Maricelis, Pasche, Julie, Markell, Samuel (Co-Principal:), Osorno, Juan, "Rust-Proofing Dry Edible Beans for the Northern Great Plains via Guided Pre-Breeding and Breeding Efforts," Sponsored by ND Department of Ag - Specialty crop block grant - USDA, $2,884.00. (October 1, 2015 - June 30, 2017).

Pasche, Julie, Wunsch, Michael, Markell, Samuel (Co-Principal:), "In-Furrow Fungicide Applications for the Management of Root Rot in Field Peas and Dry Beans," $0.00. (March 2016 - February 2017).


Nelson, Berlin D. (Professor)

*Funded*

*Funded*

*Funded*

*Funded*

*Funded*

*Funded*

*Funded*

*Funded*


Pasche, Julie S. (Assistant Professor)

Funded
Pasche, Julie (Co-Principal:), Markell, Samuel (Principal:), "Development of a management strategy for pea rust and a mobile App for pea diseases," Sponsored by North Dakota Department of Agriculture – Specialty Crop Block Grants, $114,997.00. (October 2017 - September 2019).

Funded
Pasche, Julie (Co-Principal:), Wunsch, Michael, Kalil, Audrey, "Fusarium and Aphanomyces root rots of field peas: Risk assessment and returns to seed treatment," Sponsored by North Dakota Department of Agriculture – Specialty Crop Block Grants, $89,848.00. (October 2017 - September 2019).

Funded
Pasche, Julie (Principal:), "Improving Detection Efficiency of Bacterial Blight Pathogens Affecting Dry Edible Beans in North Dakota," Sponsored by North Dakota Department of Agriculture – Specialty Crop Block Grants, $105,435.00. (October 2017 - September 2019).

Funded

Funded

Funded
Markell, Samuel (Principal:), Pasche, Julie, "Development of a management strategy for pea rust and a mobile app for pea diseases," Sponsored by ND Department of Agriculture – Specialty Crop Block Grant – USDA, $114,977.00. (October 1, 2017 - September 30, 2018).

Funded
Pasche, Julie (Principal:), Karasev, Alexander (Co-Principal:), "Characterization of a New Pea Seedborne Mosaic Virus Variant Affecting North Dakota Field Peas," Sponsored by North Dakota Department of Agriculture, State, $142,406.00. (October 1, 2016 - September 30, 2018).

Funded
Pasche, Julie (Principal:), Brueggeman, Robert (Co-Principal:), "Population structure and aggressiveness of Aphanomyces euteiches on field pea in North Dakota," Sponsored by North Dakota Department of Agriculture, State, $115,341.00. (October 1, 2016 - September 30, 2018).
Pasche, Julie (Co-Principal:), Wunsch, Michael (Principal:), "Evaluation of Seed Treatment with Streptomycin for Management of Seed-Borne Bacterial Blight in Field Peas," Sponsored by Minor Use Pesticide Fund Grant Program, State, $10,000.00. (April 1, 2017 - June 30, 2018).

Funded
Pasche, Julie, Wunsch, Michael (Principal:), Cooper, K, "Evaluation of seed treatment with streptomycin for management of seed-borne bacterial blight in field peas," Sponsored by North Dakota Department of Agriculture - Crop Protection Product Harmonization and Registration Board, $10,000.00. (April 2017 - June 2018).

Funded
Markell, Samuel, Pasche, Julie, Wunsch, Michael, Cooper, K, "Dry edible bean disease research," Sponsored by Northarvest Bean Growers Association, $50,208.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Wunsch, Michael, Cooper, "Dry Edible Bean Disease Research," Sponsored by Northarvest Dry Bean Growers, $50,208.00. (June 2017 - May 2018).

Funded
Markell, Samuel (Co-Principal:), Pasche, Julie, Wunsch, Michael, Cooper, K, "Dry edible bean disease research," Sponsored by State Board of Agriculture Research and Education, $18,912.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Wunsch, Michael, Cooper, "Dry Edible Bean Disease Research," Sponsored by State Board of Research and Education, $18,912.00. (June 2017 - May 2018).

Funded
Markell, Samuel (Co-Principal:), Pasche, Julie, Osorno, Juan, "Efficacy of foliar applications for the control of common bacterial blight under field conditions," Sponsored by ND Department of Agriculture – Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Osorno, Juan, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions," Sponsored by North Dakota Department of Agriculture - Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 2017 - May 2018).

Funded
Pasche, Julie, "Importance of Crop Residue in Field Pea Root Rot Development," Sponsored by Northern Pulse Growers Association, $19,480.00. (May 2017 - April 2018).

Funded
Pasche, Julie, Wunsch, Michael, Cooper, K, "Seed Treatment and In-Furrow Fungicides for the Control of Fusarium Root Rot in Field Peas," Sponsored by Northern Pulse Growers Association, $12,590.00. (May 2017 - April 2018).

Funded

Funded

Funded
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,649.00. (March 1, 2017 - February 28, 2018).

Funded
Pasche, Julie (Principal:), "Continued Fusarium Root Rot Research Targeting the Pathogen Complex Affecting Field Pea and Lentil," Sponsored by USA Dry Pea and Lentil Council, Private, $15,360.00. (July 1, 2016 - December 31, 2017).

Funded
Pasche, Julie (Co-Principal:), Wunsch, Michael (Principal:), Cooper, Kelly (Co-Principal:), "Seed-borne bacterial blight of field peas: Impact assessment and management," Sponsored by Northern Pulse Growers Association, $9,000.00. (March 1, 2016 - December 31, 2017).

Funded
Pasche, Julie (Principal:), "Post-Doctoral Support for Research on Root Rot of Field Pea," Sponsored by Northern Pulse Growers Association, Local, $18,500.00. (July 1, 2016 - June 30, 2017).

Funded
Pasche, Julie (Co-Principal:), Wunsch, Michael (Co-Principal:), "Evaluation of Seed Treatment with Streptomycin for Management of Seed-Borne Bacterial Blight in Field Peas," Sponsored by Minor Use Pesticide Fund Grant Program, State, $9,000.00. (April 1, 2016 - June 30, 2017).

Funded

Funded

Funded
Pasche, Julie (Principal:), Markell, Samuel (Co-Principal:), Wunsch, Michael (Co-Principal:), Cooper, Kelly (Co-Principal:), "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association, Local, $48,097.00. (June 1, 2016 - May 31, 2017).

Funded
Pasche, Julie (Principal:), "Dry Edible Bean Disease Research," Sponsored by State Board of Agricultural Research and Education, State, $23,683.00. (June 1, 2016 - May 31, 2017).

Funded
Pasche, Julie, Markell, Samuel, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight under Field Conditions," State, $12,270.00. (June 1, 2016 - May 31, 2017).

Funded
Pasche, Julie (Principal:), "Assessing the Importance of Aphanomyces Root Rot in North Dakota Field Pea and Lentil Production," Sponsored by Northern Pulse Growers Association, Local, $36,200.00. (May 1, 2016 - April 30, 2017).

Funded
Pasche, Julie (Principal:), "Efficacy of In-Furrow Fungicide Applications for the Control of Fusarium Root Rot in Field Peas," Sponsored by Northern Pulse Growers Association, Local, $12,000.00. (May 1, 2016 - April 30, 2017).

Funded
Pasche, Julie, Wunsch, Michael, "In-Furrow Fungicide Applications for the Management of Root Rot in Field Peas and Dry Edible Beans," Sponsored by Minor Use Pesticide Fund Grant Program, State, $18,916.00. (March 1, 2016 - February 28, 2017).

Funded
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,846.00. (March 1, 2016 - February 28, 2017).


Not Awarded
Pasche, Julie (Co-Principal:), Dipak, Santra (Principal:), McPhee, Kevin (Co-Principal:), Harveson, Robert (Co-Principal:), Bradshaw, Jeff (Co-Principal:), Mathew, Febina (Co-Principal:), Varenhorst, Adam (Co-Principal:), Coyne, Clarice (Co-Principal:), "Genetic Improvement for Sustainable Pea Production in the United States," Sponsored by USDA, Federal, $797,906.00. (March 1, 2016 - February 28, 2019).


Pasche, Julie, "Importance of Crop Residue in Field Pea Root Rot Development," Sponsored by Northern Pulse Growers Association, $19,480.00. (May 2017 - April 2018).

Pasche, Julie, "Seed Treatment and In-Furrow Fungicides for the Control of Fusarium Root Rot in Field Peas," Sponsored by Northern Pulse Growers Association, $6,290.00. (May 2017 - April 2018).


Pasche, Julie, Markell, Samuel (Co-Principal:), Knodel, Janet, "Pulse Crop Working Group 2017," Sponsored by North Central IPM Center (USDA-NIFA via University of Illinois), $0.00. (March 1, 2017 - February 1, 2018).


Pasche, Julie, Markell, Samuel (Co-Principal:), Wunsch, Michael, Cooper, K, Osorno, Juan, "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association, $4,520.00. (July 1, 2016 - June 30, 2017).

Pasche, Julie, Markell, Samuel (Co-Principal:), Wunsch, Michael, Cooper, K, Osorno, Juan, "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association - SBARE, $0.00. (July 1, 2016 - June 30, 2017).


Acevedo, Maricelis, Pasche, Julie, Markell, Samuel (Co-Principal:), Osorno, Juan, "Rust-Proofing Dry Edible Beans for the Northern Great Plains via Guided Pre-Breeding and Breeding Efforts," Sponsored by ND Department of Ag - Specialty crop block grant - USDA, $2,884.00. (October 1, 2015 - June 30, 2017).

Pasche, Julie, Markell, Samuel (Co-Principal:), Cooper, K, Osorno, Juan, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions," Sponsored by North Dakota Crop Protection Product Harmonization, $4,520.00. (June 1, 2016 - May 1, 2017).

Pasche, Julie, Wunsch, Michael, Markell, Samuel (Co-Principal:), "In-Furrow Fungicide Applications for the Management of Root Rot in Field Peas and Dry Beans," $0.00. (March 2016 - February 2017).

Rasmussen, Jack (Professor)

Green, Andrew (Principal:), Friskop, Andrew (Co-Principal:), Rasmussen, Jack (Co-Principal:), "Screening for Stripe Rust Resistance in ND Germplasm," Sponsored by SBARE, $9,789.00. (July 2017 - July 2018).

Secor, Gary A. (Professor)

Funded

Funded

Funded

Funded
Secor, Gary, "Evaluation or known resistant Cercospora beticola isolates to BUC fungicides," Sponsored by BASF, $47,376.00. (2017 - Present).

Funded

Funded
Secor, Gary, Robinson, Andrew, "Managing blemish problems to improve marketing of fresh potatoes," Sponsored by Specialty Crop block Grant, ND Department of Ag, $23,336.00. (2017 - Present).

Funded

Funded

Funded
Secor, Gary, Bolton, M., Khan, Mohamed, "Monitory sensitivity of Cercospora beticola to folieer fungicides in sugarbeet fields of Minnesota and North Dakota.,” Sponsored by Sugar Beet Research and Education Board of MN and ND, $29,296.00. (2016 - Present).

Funded

Funded

Funded
Thompson, Asunta (Co-Principal:), Secor, Gary (Co-Principal:), "Development of a mitigation strategy to soft rotting pathogens affecting seed potato production,” Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $51,538.00. (October 1, 2017 - September 30, 2019).

Funded

Funded
Thompson, Asunta (Co-Principal:), Secor, Gary (Co-Principal:), "Development of a mitigation strategy to soft rotting pathogens affecting seed potato production," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $47,880.00. (October 1, 2016 - September 30, 2018).

Funded
Robinson, Andrew, Yan, Guiping, Secor, Gary, "Identify the cause of potato emergence disorder for infested fields in Minnesota," Sponsored by Minnesota Department of Agriculture. (November 1, 2015 - June 30, 2018).

Funded
Secor, Gary (Co-Principal:), Robinson, Andrew (Principal:), "Managing blemish problems to improve marketing of fresh potatoes," Sponsored by North Dakota Department of Ag. Specialty Crop Block Grant, $23,336.00. (2015 - 2017).

Simons, Kristin (PostDoc)

Funded

Yan, Guiping (Assistant Professor)

Funded
Yan, Guiping (Principal:), "Detection and management of plant-parasitic nematodes on field crops (ND02232)," Sponsored by HATCH. (October 1, 2016 - September 30, 2021).

Funded
Funded
Yan, Guiping (Principal:), "Molecular quantification of soybean cyst nematode in soil in North Dakota," Sponsored by State Board of Agricultural Research & Education, $29,960.00. (July 1, 2017 - June 30, 2018).

Funded
Yan, Guiping (Principal:), Ted, Helms (Co-Principal:), B.J., Nelson (Co-Principal:), Samuel, Markell (Co-Principal:), "Monitoring virulence changing of soybean cyst nematode and evaluating soybean varieties for resistance to new virulent type," Sponsored by North Dakota Soybean Council, $48,450.00. (July 1, 2017 - June 30, 2018).

Funded
Yan, Guiping (Principal:), Marisol, Berti (Co-Principal:), Samuel, Markell (Co-Principal:), "Screening cover crops to reduce soybean cyst nematode in infested fields," Sponsored by North Dakota Soybean Council, $30,900.00. (July 1, 2017 - June 30, 2018).

Funded
Yan, Guiping, Marisol, Berti (Co-Principal:), Samuel, Markell (Co-Principal:), "Soil cyst nematode sampling program: 2017," Sponsored by North Dakota Soybean Council. (July 1, 2017 - June 30, 2018).

Funded
Yan, Guiping, "Resistance of wheat varieties to root-lesion nematode (Pratylenchus neglectus) in North Dakota," Sponsored by State Board of Agricultural Research & Education, $32,860.00. (May 1, 2017 - June 30, 2018).

Funded
Robinson, Andrew, Yan, Guiping, Secor, Gary, "Identify the cause of potato emergence disorder for infested fields in Minnesota," Sponsored by Minnesota Department of Agriculture. (November 1, 2015 - June 30, 2018).

Funded
Peters, Thomas J (Principal: Site Responsible Researcher), Yan, Guiping (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Evaluation of Seed and Liquid in-Furro Nematicide in Sugarbeet," Sponsored by Monsanto Company, Other, $20,601.00. (May 15, 2017 - May 14, 2018).

Funded
W., DeJong (Principal:), A., Charkowski (Co-Principal:), S., Gray (Co-Principal:), Yan, Guiping (Co-Principal:), "Biological and economic impacts of comprehensive and sustainable management practices," Sponsored by USDA-NIFA-SCRI, $94,751.00. (September 1, 2016 - August 31, 2017).
Yan, Guiping (Principal:), Andrew, Friskop (Co-Principal:), Joel, Ransom (Co-Principal:), "Evaluation of corn varieties for resistance to plant-parasitic in North Dakota," Sponsored by State Board of Agricultural Research & Education, $30,412.00. (May 1, 2017 - June 30, 2017).

Funded


Funded

Yan, Guiping (Principal:), "Developing a qPCR assay to determine population densities of root-lesion nematodes (Pratylenchus penetrans) in soils to be planted to potato," Sponsored by Northern Plains Potato Growers Association/MN Area II Potato Growers, $20,000.00. (May 1, 2016 - June 30, 2017).

Funded

Yan, Guiping, Khan, M, "Plant-parasitic nematodes on sugarbeet in North Dakota and Minnesota," Sponsored by Sugarbeet Research and Education Board of MN & ND. (May 1, 2016 - June 30, 2017).

Funded


Funded


Funded


Funded


Funded


Funded


Funded


Funded

Yan, Guiping (Principal:), "Selectivity and efficacy test of seed dressing fluensulfone formulations in soybeans seeds," Sponsored by Adama, $20,000.00. (November 1, 2016 - April 30, 2017).

Funded
Yan, Guiping (Principal:), A., Plaisance (Co-Principal:), "Majestence application programs for nematode control and yield/quality effects in North Dakota potato," Sponsored by Marrone Bio Innovations, $5,600.00. (March 18, 2016 - January 30, 2017).

Funded
Yan, Guiping (Principal:), A., Plaisance (Co-Principal:), "Velum Prime in-furrow potato nematode management program with Movento," Sponsored by Bayer CropScience, $10,000.00. (March 4, 2016 - January 30, 2017).


Zhong, Shaobin (Associate Professor)

Funded
Liu, Zhaohui, Zhong, Shaobin, Sponsored by Indigo, $12,000.00. (2016 - Present).

Funded

Funded
Zhong, Shaobin, "CRISPR/Cas9 genome editing," Sponsored by ND Wheat Commission, $30,000.00. (July 2017 - June 2018).

Funded
Zhong, Shaobin (Principal:), "Fusarium head blight resistance in wheat," Sponsored by ND Wheat Commission, $30,000.00. (July 2017 - June 2018).

Funded
Green, Andrew (Principal:), Zhong, Shaobin (Co-Principal:), Simsek, Senay (Co-Principal:), "Development of Hard Red Spring Wheat Cultivars Resistant to Scab," Sponsored by USWBSI, $119,943.00. (May 2017 - May 2018).

Funded

Funded
Funded

Zhong, Shaobin (Principal:), "Screening of spring wheat lines from Monsanto for Fusarium head blight resistance," Sponsored by Monsanto, $7,938.00. (March 2016 - October 2017).

Zhong, Shaobin, "DON accumulation in PI 344467 during FHB infection," Sponsored by ND Wheat Commission, $20,000.00. (July 2016 - June 2017).


Zitnick, Kimberly (PostDoc)

Plant Sciences

Berti, Marisol T. (Professor)

Funded

Funded

Funded
Berti, Marisol T (Principal:), Wick, Abbey (Co-Principal:), "Enhancing Soil Health with Cover Crops in North Dakota Training Program," Sponsored by University of Minnesota, State, $71,012.00. (October 1, 2015 - September 30, 2017).

Funded
Berti, Marisol, "Validating prediction models for on-farm alfalfa forage yields," Sponsored by Midwest Forage Association, $2,100.00. (May 2016 - April 2017).

Not Awarded

Not Awarded
McGranahan, Devan (Principal:), Berti, Marisol (Co-Principal:), Gramig, Greta (Co-Principal:), "Assessing crop resilience and producer readiness to climate change in the Northern Great Plains," Sponsored by USDA–SARE (NCR), Other, $150,000.00. (October 1, 2017 - September 30, 2019).

Not Awarded
Canna...
(OptiBio2G),” Sponsored by USDA/NIFA CAP – AFRI-A6101, $9,600,000.00. (October 1, 2013 - September 30, 2018).

Yan, Guiping, Berti, Marisol, Markell, Samuel (Co-Principal:), "Screening Cover Crops to Reduce Soybean Cyst Nematode in Infected Field," Sponsored by North Dakota Soybean Council, $0.00. (July 1, 2016 - June 30, 2017).


Cai, Xiwen (Professor)

Not Awarded

Not Awarded

Not Awarded

Not Awarded

Not Awarded
"Introgression of Fusarium Head Blight Resistance from Hexaploid Wheat to Durum," Sponsored by Agriculture Research Service, Federal, $38,717.00.

Not Awarded

Chen, Bingcan (Assistant Professor)

Funded
Braaten, Benjamin (Principal: 28.5% budget responsibility), Chen, Bingcan (Co-Principal: 34% budget responsibility), Weisenborn, Dennis (Co-Principal: 37.5% budget responsibility), "Development of an RF Sensing Platform for Grain Detection," Sponsored by John Deere Corporation, Private, $127,744.00. (November 1, 2017 - October 31, 2018).

Christoffers, Michael J. (Associate Professor)

Funded
Howatt, Kirk (Principal:), Peters, Thomas (Co-Principal:), Zollinger, Richard (Co-Principal:), Christoffers, Michael (Co-Principal:), Maurer, Jacob (Co-Principal:), "Precision Application of Herbicides for Sustainable Crop Systems," Sponsored by NDAES, North Dakota State University, $59,112.00. (November 15, 2017 - June 30, 2019).

Dai, David (Professor)
Not Awarded
"Identifying Elite Chokecherry Lines for Sustainable Natural Resource Conservation and Fruit Production in North Dakota," Sponsored by ND Department of Agriculture, State, $72,410.00.

Not Awarded

Not Awarded
"Understanding Mechanisms of Host Resistance and Mapping Genes Associated with X-disease Resistance in Chokecherry (Prunus Virginiana L.)," Sponsored by NIFA, Federal, $149,956.00.

Elias, Elias (Professor)

Not Awarded

Not Awarded
"Identify Molecular Markers Associated with a Low Cadmium Uptake Gene(s) in Durum Wheat (Triticum turgidum L. var. durum)," Sponsored by ND Crop Improvement Association, State, $18,000.00.

Not Awarded
"Identify Sources of Resistance to Fusarium Head Blight in Durum Wheat," Sponsored by Agriculture Research Service, Federal, $33,545.00.

Gramig, Greta G. (Associate Professor)

Funded

Funded

Funded

Funded

Not Awarded
McGranahan, Devan (Principal:), Berti, Marisol (Co-Principal:), Gramig, Greta (Co-Principal:), "Assessing crop resilience and producer readiness to climate change in the Northern Great Plains," Sponsored by USDA–SARE (NCR), Other, $150,000.00. (October 1, 2017 - September 30, 2019).

Green, Andrew (Assistant Professor)

Funded
Funded
Green, Andrew, "Developing Specialty Spring Wheat Germplasm/Cultivars," Sponsored by North Dakota Wheat Commission, $27,000.00. (July 2017 - October 31, 2018).

Funded

Funded
Green, Andrew, "White and Specialty Wheat Breeding Technician," Sponsored by North Dakota Wheat Commission, $50,000.00. (July 2017 - October 31, 2018).

Funded
Green, Andrew (Principal:), Zhong, Shaobin (Co-Principal:), Simsek, Senay (Co-Principal:), "Development of Hard Red Spring Wheat Cultivars Resistant to Scab," Sponsored by USWBSI, $119,943.00. (May 2017 - May 2018).

Funded
Green, Andrew, "Breeding Wheat for Intensive Management in Western MN and Eastern MN," Sponsored by MNWRPC, $60,000.00. (January 2017 - December 2017).

Green, Andrew (Principal:), Friskop, Andrew (Co-Principal:), Rasmussen, Jack (Co-Principal:), "Screening for Stripe Rust Resistance in ND Germplasm," Sponsored by SBARE, $9,789.00. (July 2017 - July 2018).

Hall, Clifford (Professor)

Not Awarded

Not Awarded
"Development of Reduced Flavor Pea Flour," Sponsored by Northern Pulse Growers Association, Federal, $31,990.00.

Not Awarded
"Optimization of Pasteurization Conditions for Flaxseed Quality and Safety," Sponsored by Heartland Flax, Private, $5,000.00.

Hatterman-Valenti, Harlene (Professor)

Funded
Thompson, Asunta, Hatterman-Valenti, Harlene, "Predicting Yield Losses Due to Metribuzin Sensitivity," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, $24,918.00. (October 1, 2017 - September 30, 2019).

Funded

Not Awarded
"Developing a Blackberry Production System for North Dakota," Sponsored by ND Department of Agriculture, State, $65,501.00.


Helms, Ted (Professor)

Funded

Funded

Funded


Knodel, Janet, Markell, Samuel (Co-Principal:), Helms, Ted, Beauzay, P. "Management of Soybean Aphids and Interaction with Soybean Cyst Nematode," Sponsored by North Dakota Soybean Council, $0.00. (July 1, 2016 - June 30, 2017).


Horsley, Richard (Professor)

Not Awarded

Not Awarded

Not Awarded

Howatt, Kirk (Associate Professor)

Funded
Bajwa, Sreekala, Nowatzki, John, Howatt, Kirk, "Field validation of weed species and herbicide resistance identification with a multi-sensor," Sponsored by North Dakota Agricultural Experiment Station, State, $59,006.00. (December 2017 - June 30, 2019).

Funded
Howatt, Kirk (Principal:), Peters, Thomas (Co-Principal:), Zollinger, Richard (Co-Principal:), Christoffers, Michael (Co-Principal:), Maurer, Jacob (Co-Principal:), "Precision Application of Herbicides for Sustainable Crop Systems," Sponsored by NDAES, North Dakota State University, $59,112.00. (November 15, 2017 - June 30, 2019).

Funded
Howatt, Kirk, "Interregional Research Project #4 Minor Crop Pest Management," Sponsored by Michigan State University, Federal, $12,000.00. (September 1, 2017 - August 31, 2018).
Funded

Funded

Funded
Howatt, Kirk, "Kochia control with various tankmixes," Sponsored by Monsanto, Private, $5,150.00. (September 1, 2016 - August 31, 2017).


Johnson, Burton L. (Professor)

Funded

Kumar, Ajay (PostDoc)

Funded
Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).

Kandel, Herman J. (Professor)

Funded

Lee, Chiwon W. (Professor)

Not Awarded

Not Awarded
"Northern Plains Vegetable Variety Testing," Sponsored by Northern Plains Sustainable Agriculture, State, $68,824.00.
"Research on Vegetable Production in Controlled Environment Systems," Sponsored by ND Department of Agriculture, State, $88,699.00.

Not Awarded
Rahman, Shafiqur, Quadir, Mohi (Co-Principal:), Swanson, Kendall (Co-Principal:), Lee, Chiwon (Co-Principal:), "Fate and transport of zinc and silver nanoparticles (NPs) in livestock manure and their impacts on the environment (air and soil) and crop(s)," Sponsored by AFRI-NIFA, $499,988.00. (October 1, 2016 - September 30, 2019).

Li, Deying (Associate Professor)

Funded
Li, Deying (Principal:), "National Perennial ryegrass trial," Sponsored by NTEP, $2,000.00. (2016 - 2021).

Funded
Li, Deying (Principal:), "National creeping bentgrass fair way trial," Sponsored by NTEP, $4,000.00. (2014 - 2019).

Funded
Li, Deying (Principal:), "National fine-leafed fescue trial," Sponsored by NTEP, $1,000.00. (2014 - 2019).

Currently Under Review

Not Awarded
Li, Deying (Principal:), "Controlling Turfgrass Injuries Caused by Animal Urine on Golf Course," Sponsored by USGA. (2017).

Li, Xuehui (Assistant Professor)

Funded
Li, Xuehui (Principal:), "Genetic dissection of FHB resistance in NDSU spring wheat breeding population," Sponsored by North Dakota State University, North Dakota State University, $25,000.00. (July 1, 2015 - June 30, 2017).

Li, Xuehui (Principal:), "Genomics-assisted breeding to improve grain yield and end-use quality in spring wheat," Sponsored by ND wheat Commission, State, $10,912.00. (July 1, 2016 - June 30, 2017).

Li, Xuehui (Principal:), "Implement of genomic selection to improve yield and quality in durum wheat," Sponsored by ND wheat Commission, State, $43,080.00. (July 1, 2016 - June 30, 2017).

Li, Xuehui (Principal:), "Validation of markers linked to end-use quality traits for marker-assisted selection in NDSU durum wheat breeding program," Sponsored by ND State Board of Agriculture Research and Education, State, $10,537.00. (July 1, 2016 - June 30, 2017).

Li, Xuehui (Principal:), "Genetic dissection of FHB resistance in durum wheat," Sponsored by North Dakota State University, State, $10,000.00. (July 1, 2015 - June 30, 2017).

Marais, Gideon (Professor)

Funded
Marais, Gideon (Principal:), Zhong, Shaobin (Co-Principal:), Simsek, Senay (Co-Principal:), "Hard Red Winter Wheat Breeding Program - Development of FHB Resistant Germplasm," Sponsored by ARS AES FHB FUNDING, $45,000.00. (July 2017 - June 2019).

McClean, Phillip (Professor)

**Currently Under Review**

**Not Awarded**
Reindl, Katie (Co-Principal:), McClean, Phillip (Principal:), "Collaborative Research: Animation-Based Tools for Molecular and Cellular Biology Education and Research," Sponsored by NSF IUSE, $1,123,327.00. (September 2016 - August 2021).

McGinnis, Esther E. (Assistant Professor)

**Funded**


Friskop, Andrew, Knodel, Janet, Ostrander, Jesse (Co-Principal:), McGinnis, Esther, Thostenson, Andrew (Co-Principal:), "Extension Integrated Pest Management (IPM) Program in North Dakota – Year 1 of 3," Sponsored by CPPM EIP USDA NIFA, Federal, $172,134.00. (September 1, 2017 - August 31, 2018).

**Not Awarded**
Whitsel, Christopher (Co-Principal:), McGinnis, Esther (Co-Principal:), Smith, Alan (Principal:), Yue, Chengyan (Co-Principal:), "Stakeholder Preferences for Genetically Engineered Specialty Crops," $456,572.00. (December 2017).


McPhee, Kevin E. (Professor)

**Funded**
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,649.00. (March 1, 2017 - February 28, 2018).

**Funded**
Pasche, Julie (Co-Principal:), Markell, Samuel (Co-Principal:), McPhee, Kevin (Co-Principal:), "Pulse Crops Working Group," Sponsored by North Central Region Integrated Pest Management Center, Federal, $19,846.00. (March 1, 2016 - February 28, 2017).

**Not Awarded**
Pasche, Julie (Co-Principal:), Dipak, Santra (Principal:), McPhee, Kevin (Co-Principal:), Harveson, Robert (Co-Principal:), Bradshaw, Jeff (Co-Principal:), Mathew, Febina (Co-Principal:), Varenhorst, Adam (Co-
Osorno, Juan (Associate Professor)

Funded
Markell, Samuel (Co-Principal:), Pasche, Julie, Osorno, Juan, "Efficacy of foliar applications for the control of common bacterial blight under field conditions," Sponsored by ND Department of Agriculture – Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 1, 2017 - May 31, 2018).

Funded
Pasche, Julie (Principal:), Markell, Samuel, Osorno, Juan, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions," Sponsored by North Dakota Department of Agriculture - Crop Protection Product Harmonization and Registration Board, $12,880.00. (June 2017 - May 2018).


Pasche, Julie, Markell, Samuel (Co-Principal:), Wunsch, Michael, Cooper, K, Osorno, Juan, "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association, $4,520.00. (July 1, 2016 - June 30, 2017).

Pasche, Julie, Markell, Samuel (Co-Principal:), Wunsch, Michael, Cooper, K, Osorno, Juan, "Dry Edible Bean Disease Research," Sponsored by Northarvest Bean Growers Association - SBARE, $0.00. (July 1, 2016 - June 30, 2017).

Acevedo, Maricelis, Pasche, Julie, Markell, Samuel (Co-Principal:), Osorno, Juan, "Rust-Proofing Dry Edible Beans for the Northern Great Plains via Guided Pre-Breeding and Breeding Efforts," Sponsored by ND Department of Ag - Specialty crop block grant - USDA, $2,884.00. (October 1, 2015 - June 30, 2017).


Pasche, Julie, Markell, Samuel (Co-Principal:), Cooper, K, Osorno, Juan, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions," Sponsored by North Dakota Crop Protection Product Harmonization, $4,520.00. (June 1, 2016 - May 1, 2017).

Peters, Thomas J. (Assistant Professor)

Funded

Funded

Funded

Funded

Funded

Funded
Howatt, Kirk (Principal:), Peters, Thomas (Co-Principal:), Zollinger, Richard (Co-Principal:), Christoffers, Michael (Co-Principal:), Maurer, Jacob (Co-Principal:), "Precision Application of Herbicides for
Sustainable Crop Systems," Sponsored by NDAES, North Dakota State University, $59,112.00. (November 15, 2017 - June 30, 2019).

Funded
Peters, Thomas J (Principal:), "Nebraska Wind Tunnel and Palmer Amaranth Awareness and Identification Short Course," $28,641.00. (July 1, 2017 - June 30, 2018).

Funded
Peters, Thomas J (Principal: Site Responsible Researcher), Yan, Guiping (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Evaluation of Seed and Liquid in-Furro Nemacide in Sugarbeet," Sponsored by Monsanto Company, Other, $20,601.00. (May 15, 2017 - May 14, 2018).

Funded

Funded

Funded

Funded
Peters, Thomas J (Principal:), "Monsanto Xtend Soybean System Experiment," Sponsored by Monsanto Company, Other, $12,600.00. (April 1, 2017 - March 31, 2018).

Funded

Ransom, Joel K. (Professor)

Funded

Funded
Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $11,010.00. (July 2017 - June 2018).

Funded

Funded
Robinson, Andrew (Principal:), Ransom, Joel (Co-Principal:), "Canola Rotation Effects on Potato Production in the Red River Valley," Sponsored by Northern Canola Growers Association, $11,000.00. (March 2017 - March 2018).

Funded
Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $33,580.00. (July 2016 - June 2017).

Robinson, Andy P. (Assistant Professor)

Funded
Secor, Gary, Robinson, Andrew, "Managing blemish problems to improve marketing of fresh potatoes," Sponsored by Specialty Crop block Grant, ND Department of Ag, $23,336.00. (2017 - Present).

Funded
Robinson, Andrew (Principal:), Thompson, Asunta (Co-Principal:), "Development of best management practices for new potato cultivars," Sponsored by Specialty Crop Block Grant, North Dakota, $97,738.00. (November 2017 - September 2019).

Funded

Funded
Robinson, Andrew, "Effects of Rotational Crops on Non-irrigated Potato Production in the Red River Valley," Sponsored by Northern Plains Potato Growers Association, $10,000.00. (July 1, 2017 - June 30, 2018).

Funded
Robinson, Andrew, "Operational needs for the Potato Extension Specialist," Sponsored by MN Area II Potato Growers Council, $12,500.00. (July 1, 2017 - June 30, 2018).

Funded
Robinson, Andrew, Yan, Guiping, Secor, Gary, "Identify the cause of potato emergence disorder for infested fields in Minnesota," Sponsored by Minnesota Department of Agriculture. (November 1, 2015 - June 30, 2018).

Funded
Robinson, Andrew (Principal:), Ransom, Joel (Co-Principal:), "Canola Rotation Effects on Potato Production in the Red River Valley," Sponsored by Northern Canola Growers Association, $11,000.00. (March 2017 - March 2018).

Funded
Robinson, Andrew (Principal:), Secor, G. A. (Co-Principal:), "Effects of Rotational Crops on Non-irrigated Potato Production in the Red River Valley," Sponsored by Northern Plains Potato Growers Association, $10,000.00. (2017).

Funded

Funded
Secor, Gary (Co-Principal:), Robinson, Andrew (Principal:), "Managing blemish problems to improve marketing of fresh potatoes," Sponsored by North Dakota Department of Ag. Specialty Crop Block Grant, $23,336.00. (2015 - 2017).

**Not Awarded**

Robinson, Andrew (Co-Principal:), MacRae, Ian (Principal:), "Resistance, Threshold, and Compatibility: Managing Insecticides for Colorado Potato Beetle," Sponsored by Specialty Crop Block Grant, North Dakota, $128,778.00. (November 2017 - August 2019).

**Not Awarded**

Robinson, Andrew (Principal:), Gudmestad, Neil (Co-Principal:), "Improving potato plant health through nutrient and fungicide management.," Sponsored by Specialty Crop Block Grant, North Dakota, $104,197.00. (October 2017 - August 2019).

Robinson, Andrew, "Operational needs for the Potato Extension Specialist," Sponsored by Northern Plains Potato Growers Association, $12,500.00. (July 1, 2017 - June 30, 2018).


**Not Awarded**

Robinson, Andrew (Principal:), Haagenson, Darrin (Co-Principal:), "Nitrogen Response and Soil Health in Potato Cropping Systems as Affected by Fumigation," Sponsored by USDA/ARS FY17 Potato Proposal, $67,025.00. (January 2017 - December 2017).

**Funded**

Rahman, Md Mukhlesur (Assistant Professor)


**Funded**


**Funded**


**Funded**

del Rio, Luis (Principal:), Rahman, Md Mukhlesur (Co-Principal:), "Improving resistance to Sclerotinia sclerotiorum in spring canola," Sponsored by USDA-National Sclerotinia Initiative, $39,879.00. (May 1, 2017 - September 30, 2018).

**Funded**

del Rio, Luis (Principal:), Rahman, Md Mukhlesur (Co-Principal:), "Improving resistance to Sclerotinia sclerotiorum in spring canola," Sponsored by USDA-National Sclerotinia Initiative, $57,505.00. (May 1, 2017 - September 30, 2018).

**Funded**

Rahman, Mukhlesur (Principal:), "Evaluation of potential conventional canola breeding lines developed from winter x spring crosses in ND," Sponsored by SBARE, State, $23,669.00. (April 1, 2016 - September 30, 2018).
Funded
Rahman, Mukhlesur (Principal:), "Study on the adaptability of conventional canola breeding lines in North Dakota," Sponsored by Northern Canola Growers Association, State, $7,890.00. (April 1, 2016 - September 30, 2018).

Funded
Chao, Wun (Principal:), Rahman, Mukhlesur (Co-Principal:), "Fine mapping and developing closely linked molecular markers associated with a grain yield QTL for breeding higher yielding canola lines," Sponsored by Northern Canola Growers Association, State, $38,332.00. (May 1, 2016 - August 31, 2018).

Funded
Rahman, Md Mukhlesur (Principal:), "Canola breeding for increasing oil yield per acre," Sponsored by Northern Canola Growers Association, $60,000.00. (May 1, 2017 - April 30, 2018).

Funded
delRio, Luis (Principal:), Rahman, Mukhlesur (Co-Principal:), "Improving resistance to Sclerotinia sclerotiorum in spring canola," Sponsored by USDA-National Sclerotinia Initiative, Federal, $21,544.00. (May 1, 2016 - September 30, 2017).

Funded
Rahman, Md Mukhlesur (Principal:), "Evaluation of potential conventional canola breeding lines developed from winter x spring crosses in ND," Sponsored by NCGA-SBARE matching, $8,520.00. (April 1, 2016 - September 30, 2017).

Funded
Rahman, Md Mukhlesur (Principal:), "Evaluation of potential conventional canola breeding lines developed from winter x spring crosses in ND," Sponsored by State Board of Agricultural Research and Education (SBARE), $25,217.00. (April 1, 2016 - September 30, 2017).

Funded
Rahman, Md Mukhlesur (Principal:), McClean, Phil (Supporting:), "Development of high oil per acre conventional canola cultivar using classical and molecular approaches," Sponsored by USDA-NIFA, $56,969.00. (September 1, 2016 - August 31, 2017).

Funded
Rahaman, Mukhlesur (Principal:), McClean, Philip (Co-Principal:), "Breeding for frost tolerant spring canola in North Dakota," Sponsored by Northern Canola Growers Association, $23,528.00. (July 1, 2016 - June 30, 2017).

Funded
Rahaman, Mukhlesur (Principal:), "Canola Breeding for Increasing Oil Yield Per Acre," Sponsored by Northern Canola Growers Association, State, $67,787.00. (May 1, 2016 - April 30, 2017).

Currently Under Review
Rahaman, Mukhlesur (Principal:), McClean, Philip (Co-Principal:), "Development of high oil per acre conventional canola cultivar using classical and molecular approaches," Sponsored by USDA-NIFA, Federal, $61,202.00. (September 1, 2016 - August 31, 2017).

Sarkar, Dipayan (PostDoc)

Funded
Shetty, Kalias (Principal: Research Leader and Designing the Experiments), Sarkar, Dipayan (Senior Personnel: Implementation of Research), "Improving salinity and waterlogging stress resilience in corn," Sponsored by North Dakota Corn Council, State, $19,742.00. (July 2017 - June 2018).

Funded

Funded
Shetty, Kalidas (Principal: Conference Organizer), Sarkar, Dipayan (Senior Personnel: Conference Co-Organizer), "Annual Conference on Food for Health," Sponsored by Roers Farmily Foundation, Other, $25,000.00. (June 2015 - August 2017).

Shetty, Kalidas (Co-Principal: Lecture on Food Systems for Tribal College Outreach), Sarkar, Dipayan (Supporting:), "NIH-INBRE Tribal College Public Health Outreach- Indigenous Food Systems for Health," Sponsored by NIH INBRE Sub-Contract from University of North Dakota, Federal, $8,000.00. (May 2016 - April 2017).

Shetty, Kali (Professor)

Funded
Shetty, Kalias (Principal: Research Leader and Designing the Experiments), Sarkar, Dipayan (Senior Personnel: Implementation of Research), "Improving salinity and waterlogging stress resilience in corn," Sponsored by North Dakota Corn Council, State, $19,742.00. (July 2017 - June 2018).

Funded

Funded
Shetty, Kalidas (Principal: Conference Organizer), Sarkar, Dipayan (Senior Personnel: Conference Co-Organizer), "Annual Conference on Food for Health," Sponsored by Roers Farmily Foundation, Other, $25,000.00. (June 2015 - August 2017).

Shetty, Kalidas (Co-Principal: Lecture on Food Systems for Tribal College Outreach), Sarkar, Dipayan (Supporting:), "NIH-INBRE Tribal College Public Health Outreach- Indigenous Food Systems for Health," Sponsored by NIH INBRE Sub-Contract from University of North Dakota, Federal, $8,000.00. (May 2016 - April 2017).

Simsek, Senay (Associate Professor)

Funded
Green, Andrew (Principal:), Zhong, Shaobin (Co-Principal:), Simsek, Senay (Co-Principal:), "Development of Hard Red Spring Wheat Cultivars Resistant to Scab," Sponsored by USWBSI, $119,943.00. (May 2017 - May 2018).

Funded
Thompson, Asunta (Co-Principal:), Raatz, Susan (Co-Principal:), Simsek, Senay (Co-Principal:), "Discovery of specific starch properties of NDSU potato germplasm for nutritional and industrial applications," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $51,128.00. (October 1, 2014 - January 31, 2017).

Not Awarded
Khan, Eakalak (Principal:), Sivaguru, Jayaraman (Co-Principal:), Simsek, Senay (Co-Principal:), Stone, James (Co-Principal:), Ndiva Mongoh, Mafany (Co-Principal:), Sibi, Mukund (Senior Personnel:), Ulven, Chad (Senior Personnel:), Yadav, Om (Senior Personnel:), McEvoy, John (Senior Personnel:), Quadir, Mohi (Senior Personnel:), "INFEWS/T3: Innovative Solutions to Attenuate Fracturing Effects through Technology (InSAFETy)," Sponsored by National Science Foundation, Federal, $2,999,999.00. (November 1, 2016 - October 31, 2019).
Thompson, Asunta L. (Associate Professor)

**Funded**

**Funded**
Thompson, Asunta (Co-Principal:), Gudmestad, Neil (Co-Principal:), "Development of multipurpose potato cultivars with enhanced quality, disease and pest resistance," Sponsored by USDA-NIFA, Federal, $55,100.00. (2017 - Present).

**Funded**

**Funded**
Thompson, Asunta (Co-Principal:), Gudmestad, Neil (Co-Principal:), "Development of best management practices for new potato cultivars," Sponsored by Specialty Crop Block Grant, North Dakota, $97,738.00. (November 2017 - September 2019).

**Funded**
Thompson, Asunta (Co-Principal:), Secor, Gary (Co-Principal:), "Development of a mitigation strategy to soft rotting pathogens affecting seed potato production," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $51,538.00. (October 1, 2017 - September 30, 2019).

**Funded**
Thompson, Asunta, Hatterman-Valenti, Harlene, "Predicting Yield Losses Due to Metribuzin Sensitivity," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, $24,918.00. (October 1, 2017 - September 30, 2019).

**Funded**

**Funded**
Thompson, Asunta (Principal:), "Assessing the potential for remote sensing of Potato virus Y in potato seed fields," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $48,017.00. (October 1, 2016 - September 30, 2018).

**Funded**
Thompson, Asunta (Co-Principal:), Secor, Gary (Co-Principal:), "Development of a mitigation strategy to soft rotting pathogens affecting seed potato production," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $47,880.00. (October 1, 2016 - September 30, 2018).

**Funded**
Thompson, Asunta L. (Principal:), "Genetic Improvement of Potato (Solanum tuberosum L.) for the Northern Plains," Sponsored by Minnesota Area II Potato Research and Promotion Council, $45,000.00. (July 1, 2017 - June 30, 2018).

**Funded**
Thompson, Asunta L. (Principal:), "Genetic Improvement of Potato (Solanum tuberosum L.) for the Northern Plains," Sponsored by Northern Plains Potato Growers Association, $40,000.00. (July 1, 2017 - June 30, 2018).
Douches, David (Co-Principal:), Endelman, Jeffrey (Co-Principal:), Michaels, Thomas (Co-Principal:), Thompson, Asunta (Co-Principal:), "Development of multipurpose potato cultivars with enhanced quality, disease and pest resistance - North Central program 2016," Sponsored by NIFA (Special Potato), $569,600.00. (October 1, 2016 - September 30, 2017).

**Funded**
Thompson, Asunta L. (Principal:), "Potato Breeding and cultivar development for the Northern Plains," Sponsored by Minnesota Area II Potato Research and Promotion Council, $25,000.00. (July 1, 2016 - June 30, 2017).

**Funded**
Thompson, Asunta L. (Principal:), "Potato Breeding and cultivar development for the Northern Plains," Sponsored by Northern Plains Potato Growers Association, $50,000.00. (July 1, 2016 - June 30, 2017).

**Funded**
Thompson, Asunta (Principal:), "Assessing the potential for remote sensing of Potato virus Y in potato seed fields," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $46,690.00. (October 1, 2015 - June 30, 2017).

**Funded**
Thompson, Asunta (Principal:), "Assessing the potential for remote sensing of Potato virus Y in potato seed fields," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $53,028.00. (October 1, 2014 - June 30, 2017).

**Funded**
Thompson, Asunta (Co-Principal:), Raatz, Susan (Co-Principal:), Simsek, Senay (Co-Principal:), "Discovery of specific starch properties of NDSU potato germplasm for nutritional and industrial applications," Sponsored by North Dakota Department of Agriculture Specialty Crop Block Grants, State, $51,128.00. (October 1, 2014 - January 31, 2017).


**Not Awarded**
Thompson, Asunta (Co-Principal:), Haagenson, Darrin (Co-Principal:), Suttle, Jeffrey (Co-Principal:), "Evaluation of glycoalkaloids in advanced potato clones," Sponsored by USDA-ARS Potato Proposals, Federal, $44,500.00. (2016 - Present).

Douches, David (Co-Principal:), Endelman, Jeffrey (Co-Principal:), Michaels, Thomas (Co-Principal:), Thompson, Asunta (Co-Principal:), "Development of multipurpose potato cultivars with enhanced quality, disease and pest resistance - North Central program 2017," Sponsored by NIFA (Special Potato), $640,000.00. (October 1, 2017 - September 30, 2019).

**Vegi, Anuradha (Assistant Professor of Practice)**

**Funded**

**West, Todd (Professor)**

**Funded**
West, Todd (Co-Principal:), "Nursery Crop and Landscape Systems (IEG-63)," Sponsored by USDA CSREES NIMSS Project, Federal. (2016 - Present).
West, Todd, "Evaluating Cider Apple Cultivars and Rootstocks for Use in North Dakota," Sponsored by USD/NDDA Specialty crop Block Grant Program (SCBGP), Federal, $37,473.00. (October 1, 2016 - September 30, 2018).

Funded
West, Todd, "Rootstock Evaluations to Enhance Nursery Crop Production and Performance for North Dakota," Sponsored by USDA/NDDA Specialty Crop Block Grant Program (SCBGP), Federal, $36,389.00. (October 1, 2016 - September 30, 2018).

Funded

Funded
West, Todd (Co-Principal:), "Evaluating Cornelian Cherry Germplasm for North Dakota," Sponsored by ND State Board of Agricultural Research & Education (SBARE), State, $8,411.00. (February 8, 2016 - June 30, 2017).

Funded
West, Todd (Principal:), "Hazelnut Cultivar Performance Trial for Hazelnut Production in North Dakota," Sponsored by ND State Board of Agricultural Research & Education (SBARE), State, $5,351.00. (February 8, 2016 - June 30, 2017).

Funded
West, Todd (Co-Principal:), "Enhancing Tree Selection and Evaluating Tree Species in Western North Dakota," Sponsored by USDA/NDDA Specialty Crop Block Grant Program (SCBGP), Federal, $159,409.00. (October 1, 2015 - June 30, 2017).

Funded
West, Todd (Co-Principal:), "Evaluating Apples (Edible and Ornamental) for North Dakota Commercial Nursery and Orchard Industries," Sponsored by USDA/NDDA Specialty Crop Block Grant Program (SCBGP), Federal, $98,075.00. (October 1, 2014 - June 30, 2017).

Funded
West, Todd (Principal:), "Ornamental Woody Plant Breeding," Sponsored by USDA/NDDA Specialty Crop Block Grant Program (SCBGP), Federal, $34,061.00. (October 1, 2014 - May 31, 2017).

Zollinger, Rich K. (Professor)

Funded
Howatt, Kirk (Principal:), Peters, Thomas (Co-Principal:), Zollinger, Richard (Co-Principal:), Christoffers, Michael (Co-Principal:), Maurer, Jacob (Co-Principal:), "Precision Application of Herbicides for Sustainable Crop Systems," Sponsored by NDAES, North Dakota State University, $59,112.00. (November 15, 2017 - June 30, 2019).

Funded

Funded
Zollinger, Richard, "Defining glyphosate and dicamba thresholds in dry bean, field pea, and potato," Sponsored by ND Dept of Ag/USDA Specialty Block Grant, State, $14,081.00. (October 1, 2016 - June 30, 2017).

Funded

**Funded**

**Funded**


Boetel, Mark A. (Principal:), "Wireworm Management in Sugarbeet," Sponsored by American Crystal Sugar Company, Private, $2,800.00. (May 1, 2017 - July 30, 2018).

Knodel, Janet (Principal:), Calles-Torrez, Veronica (Co-Principal:), Boetel, Mark (Co-Principal:), "Evaluation of Bt Traits in Corn Hybrids for Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Utilization Council, Other, $27,384.39. (July 2017 - June 2018).

Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $11,010.00. (July 2017 - June 2018).


Boetel, Mark A. (Principal:), "Registered and Experimental Seed Treatment Insecticides for Sugarbeet Insect Pest Management," Sponsored by Valent USA, Private, $10,500.00. (April 1, 2017 - December 31, 2017).

**Funded**
Knodel, Janet, Ransom, Joel, Boetel, Mark, "Identification of Bt Resistance in Corn Rootworms in North Dakota," Sponsored by North Dakota Corn Council, Other, $33,580.00. (July 2016 - June 2017).

**Funded**

**Fauske, Gerald (Research Scientist)**

**Funded**

**Funded**

**Funded**

**Kobiela, Breanna (Research Scientist)**

**Not Awarded**
DeKeyser, Edward (Principal:), Roberts, David (Co-Principal:), Kobiela, Breanna (Co-Principal: Supporting), Toy, Dustin (Co-Principal: PhD Student), Anteau, Michael (Co-Principal: USGS Personnel), Pearse, Aaron (Co-Principal: USGS Personnel), "Using precision agriculture to predict economic viability of farming wetlands," Sponsored by North Dakota State University, $54,437.00. (November 2017 - Present).

**Casey, Francis (Professor)**

**Funded**
Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey (Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil water management in frigid northern Great Plains soils," Sponsored by Natural Resource Conservation Service – Conservation Innovation Grant, Federal, $999,327.00. (2017 - 2020).

**Funded**
Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Casey, Francis (Co-Principal:), "Reducing soil compaction for improved reclamation of lands impacted by oil and gas well-pad site development," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $368,725.00. (July 1, 2017 - June 30, 2019).

**Funded**
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Corn Council, State, $135,958.00. (July 1, 2017 - June 30, 2019).

**Funded**
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Soybean Council, State, $57,785.00. (July 1, 2017 - June 30, 2018).
Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), "Wheat Response to Salinity/Soil Health," Sponsored by ND Wheat Commission, State, $20,970.00. (July 1, 2016 - October 31, 2017).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 4)," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

Currently Under Review
Casey, Francis (Principal:), Hakk, Heldur (Co-Principal:), "Employing a Novel Field Method to Identify the Fate of 17beta-Estradiol, and Mitigate its Risk," Sponsored by United States Department of Agriculture - National Institute of Food and Agriculture, Federal, $497,118.00. (October 1, 2017 - September 30, 2021).

Not Awarded
Casey, Francis (Principal:), "SusChEM: Employing a Novel Field Method to Identify the Fate of 17beta-Estradiol, and Mitigate its Risk," Sponsored by National Science Foundation, $329,642.00. (July 1, 2017 - June 30, 2020).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Steele, Dean (Co-Principal:), Casey, Francis (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Hopkins, David (Co-Principal:), Reese, Amy (Co-Principal:), Xu, Yiwen (Co-Principal:), "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).

Not Awarded
DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean, Casey, Francis, Chatterjee, Wick, Abbey, Hopkins, Roberts, David, Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS CIG, $988,279.00. (September 30, 2015 - September 29, 2018).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), "Improving Soil Health and Productivity of Remediated Oil-Spill Soil," Sponsored by Tesoro (non-competitive grant), $300,000.00. (2014 - 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the SHARE Farm," Sponsored by ND Corn Council, State, $141,341.00. (July 1, 2015 - June 30, 2017).

Chatterjee, Amitava (Assistant Professor)

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for corn production," Sponsored by North Dakota Corn Council, $7,100.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for corn production," Sponsored by North Dakota State Board of Agricultural Research and Education, $10,300.00. (2017 - 2018).
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for Soybean production," Sponsored by North Dakota Soybean Council, $4,750.00. (2017 - 2018).

**Funded**

Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for soybean production," Sponsored by North Dakota State Board of Agricultural Research and Education, $10,300.00. (July 1, 2017 - June 30, 2018).

**Funded**


**Funded**


**Funded**

Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).

**Currently Under Review**

Chatterjee, Amitava, "Can we predict crop nitrogen response using drone-based remote sensing?," Sponsored by NDSU-AES Precision Agriculture, $49,610.00. (November 15, 2017 - June 30, 2019).

**Not Awarded**

"Can we Increase Soybean Yield with Biological Seed Inoculations?," Sponsored by ND Soybean Council, State, $8,275.00.

**Not Awarded**

"Comparison of Dry Bean Cultivars' Response to Inoculation for Yield, Quality and Nitrogen Fixation Potentials," Sponsored by Northarvest Bean Growers Association, Private, $17,487.00.

**Not Awarded**

"Dry Bean Cultivars' Response to Rhizobium Inoculation for Yield, Protein Content and Nitrogen Fixation Potential," Sponsored by ND Department of Agriculture, State, $72,036.00.

**Not Awarded**


**Not Awarded**

"Optimizing Dry Phosphorus and Starter Fertilizers Application Rates and Placement Methods in Potato Production," Sponsored by ND Department of Agriculture, State, $71,500.00.

Not Awarded
"Yield Response and Nitrogen Fixation Potentials of Field Pea Cultivars in Response to Inoculation," Sponsored by ND Department of Agriculture, State, $47,570.00.

Wick, Abbey (Principal:), Chatterjee, Amitava (Co-Principal:), Balasubramanian, Narayanaganesh (Co-Principal:), Xu, Yiwen (Co-Principal:), Reese, Amy (Co-Principal:), Hopkins, David (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Mitigating the unexpected consequences of climate and land-use changes on northern Great Plains fragile soils," Sponsored by USDA- Agriculture and Food Research Initiative: Food Security, Federal, $3,997,519.00. (October 1, 2015 - September 30, 2019).

Not Awarded
"Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Steele, Dean (Co-Principal:), Casey, Francis (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Hopkins, David (Co-Principal:), "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).


Not Awarded

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Improving Soil Health and Productivity in Sodic Soils," Sponsored by ND Soybean Council, State, $29,211.00. (July 1, 2016 - June 30, 2017).

Cihacek, Larry J. (Professor)

Funded
Landblom, Douglas (Principal:), Buetow, Ryan (Co-Principal:), Senturklu, Songul, Rickertson, John (Co-Principal:), Cihacek, Larry (Co-Principal:), Rahman, Shafiqur, "Effect of Long-Term Crop and Livestock Systems on forage Finishing, Soil Fertility, Nitrogen Mineralization, Carbon Sequestration, and Profitability," Sponsored by USDA/NIFA/NC SARE, North Dakota State University, $199,997.00. (October 1, 2016 - September 30, 2019).

Funded
Funded

Not Awarded
Cihacek, Larry J (Principal:), Mathews, Shiney (Co-Principal:), Cooper, Kelly (Co-Principal:), Aberle, Ezra (Co-Principal:), Landblom, Douglas (Co-Principal:), "Improving the Precision of Soil Test N Recommendations Using a Soil Organic Matter Factor," Sponsored by AES Precision Agriculture, North Dakota State University, $87,000.00. (2017 - Present).

Not Awarded
Cihacek, Larry (Co-Principal:), "A Farmer Friendly Decision Support Tool for Evaluating the Impact of Cover Crops, Tillage systems, Crop Rotations and Residue on Soil Organic Matter Content and Soil Health," Sponsored by Ohio State University, State, $40,963.00. (October 1, 2015 - September 30, 2018). 

Funded
Daigh, Aaron L. (Assistant Professor)
Meehan, Miranda (Principal:), Sedivec, Kevin (Other: Collaborator), DeSutter, Thomas (Other: Collaborator), Daigh, Aaron, Augustin, Chris (Other: Collaborator), "USDA NIFA, Hatch project 1009707: Remediation options to enhance ecosystem services of lands in North Dakota," Sponsored by USDA, NIFA, Federal, $200,000.00. (June 1, 2016 - Present).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $60,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Sponsored by North Dakota Industrial Commission - Lignite Research Council, State, $578,187.00. (June 2016 - May 2021).

Funded
Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey (Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil water management in frigid northern Great Plains soils," Sponsored by Natural Resource Conservation Service – Conservation Innovation Grant, Federal, $999,327.00. (2017 - 2020).

Funded
Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Casey, Francis (Co-Principal:), "Reducing soil compaction for improved reclamation of lands impacted by oil and gas well-pad site development," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $368,725.00. (July 1, 2017 - June 30, 2019).

Funded
Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Corn Research and Promotion Council, $38,231.00. (2017 - 2018).

Funded
Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by North Dakota Corn Council, $57,430.00. (2017 - 2018).

Funded
Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation and corresponding field days," Sponsored by Minnesota Soybean Growers, $26,075.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for corn production," Sponsored by North Dakota Corn Council, $7,100.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for corn production," Sponsored by North Dakota State Board of Agricultural Research and Education, North Dakota State Board of Agricultural Research and Education, $10,300.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for Soybean production," Sponsored by North Dakota Soybean Council, $4,750.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Meehan, M A (Principal:), Augustine, C (Co-Principal:), DeSutter, T (Co-Principal:), "Amending soils for successful remediation of brine spills on range and crop lands," Sponsored by USDA – CARE, $200,000.00. (2016 - 2018).

Funded
Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Principal:), "Soil and water management for soybean production," Sponsored by North Dakota State Board of Agricultural Research and Education, North Dakota State Board of Agricultural Research and Education, $10,300.00. (July 1, 2017 - June 30, 2018).

Funded
Daigh, Aaron (Co-Principal:), McGranahan, D (Principal:), Rahman, S (Co-Principal:), "Dust Research Funding Request," Sponsored by Dickinson Research and Extension Center, $58,352.00. (2016 - 2017).

Funded
Daigh, Aaron (Principal:), DeSutter, Thomas (Co-Principal:), "Harvesting Soil Salts from Soybean Production Fields: Evaluating a New Method," Sponsored by North Dakota Soybean Council, $19,482.00. (2016 - 2017).
**Funded**


**Funded**

Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Corn Growers, $13,296.00. (2016 - 2017).

**Funded**

Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Soybean Growers, $32,698.00. (2016 - 2017).

**Funded**

Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by North Dakota Soybean Council, $47,155.00. (2016 - 2017).

**Funded**


**Funded**


**Funded**

Daigh, Aaron (Supporting: post-doctoral associate with senior and junior author on manuscripts, coordinating soil and plant sampling efforts, and quarterly reports), Morton, L W (Principal:), Helmers, M J (Principal:), "Climate change, mitigation, and adaptation in corn-based cropping systems," Sponsored by USDA-NIFA-AFRI-CAP, $19,992,144.00. (2012 - 2017).

**Funded**

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $309,508.00. (October 2015 - June 2017).

**Not Awarded**

Daigh, Aaron (Co-Principal:), Clay, D (Principal:), Qiao, Q (Co-Principal:), Hua, G (Co-Principal:), Clay, S (Co-Principal:), Perkins, L (Co-Principal:), Smart, A (Co-Principal:), Hansen, S (Co-Principal:), Dailey, R (Co-Principal:), Reese, C (Co-Principal:), Bucking, H (Co-Principal:), Subramanian, S (Co-Principal:), Kumar, S (Co-Principal:), Stone, J (Co-Principal:), DeSutter, T (Co-Principal:), Chatterjee, A (Co-Principal:), Wick, A (Co-Principal:), Roberts, D (Co-Principal:), Hopkins, D (Co-Principal:), "Building a Multistate Team for Optimizing Energy, Food, and Water Recourses in the Precision Identification and Restoration of Northern Great Plains Saline and Saline/Sodic Soils," Sponsored by National Science Foundation – EPSCOR, $1,794,284.00. (2017 - 2021).

**Not Awarded**

McGranahan, Devan (Principal:), Yurkonis, K (Co-Principal:), Carr, Patrick (Co-Principal:), Travers, Steven (Co-Principal:), Daigh, Aaron (Co-Principal:), "A climate variability 'stress test' for crops and rangelands in the Northern Great Plains," Sponsored by USDA-NIFA/AFRI, Federal, $348,096.00. (January 1, 2016 - December 31, 2020).

**Not Awarded**
McGranahan, Devan (Principal:), Daigh, Aaron (Co-Principal:), Limb, Ryan (Co-Principal:), Dixon, C (Co-Principal:), " Connecting duff and soil moisture with soil heating, hydrophobicity in Northern Plains grassland," Sponsored by USDI–Joint Fire Science Program, Other, $292,450.00. (January 1, 2016 - December 31, 2019).


Not Awarded
Limb, Ryan (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Roberts, David (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

Not Awarded

DeKeyser, Shawn (Professor)

Funded
DeKeyser, Edward, "Calculating Ecosystem Services and Values of Wetland within an Agriculture Setting," Sponsored by DOI/USGS, $79,000.00. (September 15, 2016 - September 14, 2019).

Funded
Hargiss, Christina (Principal:), DeKeyser, Edward (Co-Principal:), "Assessment of change over time at reference condition wetlands in North Dakota," Sponsored by ND Dept. of Health/EPA, $20,000.00. (March 1, 2016 - December 31, 2017).

Funded
DeKeyser, E S (Principal:), Hargiss, Christina (Co-Principal:), "National Wetland Condition Assessment and its Intensification in the Prairie Pothole Region of North Dakota," Sponsored by EPA Region VIII, $90,000.00. (2015 - 2017).

Not Awarded
DeKeyser, Edward (Principal:), Roberts, David (Co-Principal:), Kobiela, Breanna (Co-Principal: Supporting), Toy, Dustin (Co-Principal: PhD Student), Anteau, Michael (Co-Principal: USGS Personnel), Pearse, Aaron (Co-Principal: USGS Personnel), "Using precision agriculture to predict economic viability of farming wetlands," Sponsored by North Dakota State University, $54,437.00. (November 2017 - Present).

Not Awarded

Not Awarded
Limb, Ryan (Principal:), Geaumont, Benjamin (Co-Principal:), DeSutter, Thomas (Co-Principal:), DeKeyser, Edward (Co-Principal:), Harris, Marion (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Management strategies to improve Conservation Reserve Program habitat quality and livestock grazing value," Sponsored by North Dakota Industrial Commission - Outdoor Heritage Program, State, $949,569.00. (May 2014 - May 2017).

DeSutter, Thomas M. (Associate Professor)
Meehan, Miranda (Principal:), Sedivec, Kevin (Other: Collaborator), DeSutter, Thomas (Other: Collaborator),
Daigh, Aaron, Augustin, Chris (Other: Collaborator), "USDA NIFA, Hatch project 1009707:
Remediation options to enhance ecosystem services of lands in North Dakota," Sponsored by USDA,
NIFA, Federal, $200,000.00. (June 1, 2016 - Present).

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas
(Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North
Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas
(Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North
Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas
(Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North
Dakota coal mine lands," Private, $60,000.00. (June 2016 - May 2021).

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas
(Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North
Dakota coal mine lands," Sponsored by North Dakota Industrial Commission - Lignite Research Council,
State, $578,187.00. (June 2016 - May 2021).

Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey
(Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-
Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil
water management in frigid northern Great Plains soils," Sponsored by Natural Resource Conservation

Gasch, Caley (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), Wick, Abbey
(Co-Principal:), "Defining saline patches in row crop fields: biotic communities and implications for zone
management," Sponsored by NDSU Agriculture Experiment Station, North Dakota State University,
$63,592.00. (November 15, 2017 - June 30, 2019).

Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron
(Co-Principal:), Casey, Francis (Co-Principal:), "Reducing soil compaction for improved reclamation of
lands impacted by oil and gas well-pad site development," Sponsored by North Dakota Industrial
Commission - Oil and Gas Research Council, State, $368,725.00. (July 1, 2017 - June 30, 2019).

Meehan, Miranda, DeSutter, Thomas, Augustin, C, "Amending Soils for Successful Remediation of Brine
Spills on Range and Crop Land," Sponsored by USDA, NIFA, Federal, $200,000.00. (January 1, 2016 -
December 31, 2018).
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Corn Utilization Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Soybean Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded
Daigh, Aaron (Principal:), DeSutter, Thomas (Co-Principal:), "Harvesting Soil Salts from Soybean Production Fields: Evaluating a New Method," Sponsored by North Dakota Soybean Council, $19,482.00. (2016 - 2017).

Funded

Funded

Funded
Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).

Funded
DeSutter, Thomas, Chatterjee, Wick, Abbey, "Improving Soil Health and Productivity of Sodic Soils," Sponsored by ND Soybean Council, $29,211.00. (July 1, 2016 - June 30, 2017).

Funded

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $309,508.00. (October 2015 - June 2017).

Not Awarded
"Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils Within the Northern Great Plains," Sponsored by Natural Resources Conservation Service, Federal, $974,022.00.

Not Awarded
"Mitigating the Unexpected Consequences of Climate and Land-use Changes on Northern Great Plains Fragile Soils," Sponsored by South Dakota State University, State, $1,463,246.00.

Not Awarded
"Workforce Development for Mitigating the Unexpected Consequences of Climate and Economic Induced Land Use Changes," Sponsored by South Dakota State University, State, $1,720,853.00.
Wick, Abbey (Principal:), Chatterjee, Amitava (Co-Principal:), Balasubramanian, Narayanaganesh (Co-Principal:), Xu, Yiwen (Co-Principal:), Reese, Amy (Co-Principal:), Hopkins, David (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Mitigating the unexpected consequences of climate and land-use changes on northern Great Plains fragile soils," Sponsored by USDA- Agriculture and Food Research Initiative: Food Security, Federal, $3,997,519.00. (October 1, 2015 - September 30, 2019).

Not Awarded
Limb, Ryan (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Roberts, David (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

Not Awarded
DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean (Co-Principal:), Casey, Francis (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Hopkins, David (Co-Principal:), Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).

Not Awarded
DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean, Casey, Francis, Chatterjee, Wick, Abbey, Hopkins, Roberts, David, Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS CIG, $988,279.00. (September 30, 2015 - September 29, 2018).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), "Improving Soil Health and Productivity of Remediated Oil-Spill Soil," Sponsored by Tesoro (non-competitive grant), $300,000.00. (2014 - 2017).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Improving Soil Health and Productivity in Sodic Soils," Sponsored by ND Soybean Council, State, $29,211.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Interpretation and Sharing of Information from Soybean and Pest Pressure Response to Salinity (year 4)," Sponsored by ND Soybean Council, State, $33,571.00. (July 1, 2016 - June 30, 2017).

Not Awarded
Limb, Ryan (Principal:), Geaumont, Benjamin (Co-Principal:), DeSutter, Thomas (Co-Principal:), DeKeyser, Edward (Co-Principal:), Harris, Marion (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Management strategies to improve Conservation Reserve Program habitat quality and livestock grazing value," Sponsored by North Dakota Industrial Commission - Outdoor Heritage Program, State, $949,569.00. (May 2014 - May 2017).

Foster, Stephen P. (Professor)

Funded
Foster, Stephen (Principal:), "Quantitative Nutrient Allocation in Larval Hessian Fly on Susceptible and Resistant Wheat," Sponsored by NIFA, Federal, $133,443.00. (March 1, 2016 - February 28, 2018).

Franzen, Dave W. (Professor)

Funded
Funded

Funded

Funded
Franzen, David, "Evaluation of DMP as a nitrification inhibitor," Sponsored by BASF, $20,000.00. (October 1, 2016 - October 1, 2017).

Funded

Funded

Funded

Funded

Gasch, Caley (Assistant Professor)

Funded
Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey (Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil water management in frigid northern Great Plains soils." Sponsored by Natural Resource Conservation Service – Conservation Innovation Grant, Federal, $999,327.00. (2017 - 2020).

Funded
Gasch, Caley (Co-Principal:), Dobre, Mariana (Principal:), Brooks, Erin (Co-Principal:), Strawn, Daniel (Co-Principal:), Brown, David (Co-Principal:), "Phosphorus management in forested ecosystems," Sponsored by Foundational Grants Program, USDA-NIFA, Federal, $492,089.00. (March 1, 2016 - December 31, 2019).

Funded
Gasch, Caley (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), Wick, Abbey (Co-Principal:), "Defining saline patches in row crop fields: biotic communities and implications for zone management," Sponsored by NDSU Agriculture Experiment Station, North Dakota State University, $63,592.00. (November 15, 2017 - June 30, 2019).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Corn Council, State, $135,958.00. (July 1, 2017 - June 30, 2019).
Wick, Abbey (Principal:), Gasch, Caley (Co-Principal:), "Adoption of cover crops to build soil health in the northern plains (continuation)," Sponsored by North Central Region Sustainable Agriculture Research and Education Partnership Grant program, Federal, $29,488.00. (May 1, 2017 - April 30, 2019).

Funded
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harman, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Corn Utilization Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harman, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Soybean Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Soybean Council, State, $57,785.00. (July 1, 2017 - June 30, 2018).

Funded
Gasch, Caley (Principal:), "Demonstration rhizotrons for observing plant roots and plant-soil interactions," Sponsored by North Dakota Grain Dealers Educational Foundation, State, $468.00. (October 1, 2016 - September 30, 2017).

Funded
Gasch, Caley (Co-Principal:), Brown, David (Principal:), Kalsits, Lee (Co-Principal:), Mazzola, Mark (Co-Principal:), "Precision application of organic amendments for improved soil quality in replanted apple orchards," Sponsored by BIOAg Grant Program, Center for Sustaining Agriculture and Natural Resources, State, $40,000.00. (June 1, 2016 - June 30, 2017).

Goos, R J. (Professor)

Funded
Goos, R. Jay (Principal:), "Iron fertilizer evaluation and improvement," Sponsored by North Dakota Soybean Council, $10,680.00. (July 1, 2017 - June 30, 2018).

Funded
Goos, R. Jay (Co-Principal: Conducted field studies), Graham, Christopher (Co-Principal: Conducted field studies (SDSU)), "Testing the effects of biological seed treatments on yield, disease pressure, nutrient uptake, and nitrogen uptake in field peas and lentils," Sponsored by Northern Pulse Growers, $5,000.00. (July 1, 2017 - June 30, 2018).

Funded

Funded
Goos, R. Jay (Principal:), "Screening wheat varieties for reduced phosphorus requirement," Sponsored by North Dakota Wheat Commission, $12,455.00. (July 1, 2016 - October 31, 2017).

Funded
Goos, R. Jay (Principal:), "Development of a ureide tissue test for soybeans," Sponsored by North Dakota Soybean Council, $13,900.00. (July 1, 2016 - June 30, 2017).

Hargiss, Christina L. (Assistant Professor)

Funded

Funded
Hargiss, Christina (Principal:), Norland, J E (Co-Principal:), "Ecosystem Impacts and Environmental Stakeholder Perceptions of the Fargo Project," Sponsored by City of Fargo, $95,133.00. (2015 - 2018).

Funded
Hargiss, Christina (Principal:), DeKeyser, Edward (Co-Principal:), "Assessment of change over time at reference condition wetlands in North Dakota," Sponsored by ND Dept. of Health/EPA, $20,000.00. (March 1, 2016 - December 31, 2017).

Funded

Funded

Funded

Funded
DeKeyser, E S (Principal:), Hargiss, Christina (Co-Principal:), "National Wetland Condition Assessment and its Intensification in the Prairie Pothole Region of North Dakota," Sponsored by EPA Region VIII, $90,000.00. (2015 - 2017).

Currently Under Review
Motschenbacher, Jill, Kryjevskaia, Mila, Nyachwaya, James, Ladbury, Jared, Hargiss, Christina, "Scholarship-ND: An institutional model for STEM faculty training in the Scholarship of Teaching and Learning (SoTL)," Sponsored by National Science Foundation, Federal, $2,948,405.00. (2017 - 2023).

Not Awarded
Norland, Jack (Principal:), Hargiss, Christina (Co-Principal:), Meehan, Miranda (Co-Principal:), "Using scenarios to inform policy interventions on land use and decisions in the Plains and Prairie Pothole LCC," Sponsored by United States Fish and Wildlife Service, Federal, $31,014.00. (October 1, 2017 - September 30, 2019).

Not Awarded

Not Awarded

Harmon, Jason P. (Associate Professor)

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Monitoring native pollinator communities throughout North Dakota: Status and management considerations for species of conservation concern," Sponsored by North Dakota Department of Agriculture, State, $699,100.00. (October 2016 - April 2021).
Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Kral, Katherine (Co-Principal:), "Influence of land-use practices on site occupancy of Monarchs (Danaus plesippus), Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by USDI Fish & Wildlife Service, Federal, $87,441.00. (May 2015 - April 2020).

Funded
Gasch, Caley (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), Wick, Abbey (Co-Principal:), "Defining saline patches in row crop fields: biotic communities and implications for zone management," Sponsored by NDSU Agriculture Experiment Station, North Dakota State University, $63,592.00. (November 15, 2017 - June 30, 2019).

Funded
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Corn Utilization Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Soybean Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), "Influence of land-use practices on site occupancy of Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by North Dakota Game & Fish, State, $42,000.00. (July 2016 - July 2017).

Funded

Funded
Harmon, Jason, Wick, A F, DeSutter, T, "Interpretation and sharing of information from soybean and pest pressure response to salinity (Year 4),," Sponsored by North Dakota Soybean Council, $33,571.00. (July 2016 - June 2017).

Not Awarded
Hovick, Torre (Principal:), Limb, Ryan (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), Toledo, David (Co-Principal:), Undi, Michael (Co-Principal:), "Restoring Multi-Functionality To A Novel Ecosystem," Sponsored by USDA AFRI, Federal, $499,907.00. (January 2017 - December 2020).

Not Awarded
Limb, Ryan (Principal:), Harmon, Jason (Co-Principal:), Hovick, Torre (Co-Principal:), McGranahan, Devan (Co-Principal:), Neville, Bryan (Co-Principal:), "Restoring ecosystem services through heterogeneity-based land management," Sponsored by USDA AFRI, $498,828.00. (January 2016 - December 2019).

Wick, Abbey (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Interpretation and Sharing of Information from Soybean and Pest Pressure Response to Salinity (year 4)," Sponsored by ND Soybean Council, State, $33,571.00. (July 1, 2016 - June 30, 2017).
**Harris, Marion (Professor)**

**Funded**
Harris, Marion O, "Developing Durable Resistance to Insect Pests of North Dakota Wheat," Sponsored by North Dakota SBARE- Wheat, $9,000.00. (June 30, 2017 - June 30, 2018).

**Funded**
Harris, Marion O (Principal:), "Developing Durable Resistance to Insect Pests of North Dakota Wheat," Sponsored by North Dakota Wheat Commission, $3,000.00. (June 30, 2017 - June 30, 2018).

**Funded**

**Funded**
Harris, Marion, "Dissection and Deployment of Sustainable Disease and Pest Resistance in Wheat," Sponsored by NIFA, Federal, $48,400.00. (November 2015 - May 2017).

**Not Awarded**

**Not Awarded**
"Protecting the Insect Pollinators of North Dakota's Iconic Prairie Orchid," Sponsored by NDSU Development Foundation, North Dakota State University, $6,000.00.

**Not Awarded**
Harris, Marion, Voldseth, Deirdre, "Novel management methods for swede midge, a devastating invasive insect pest of brassicas," Sponsored by USDA, AMS, Specialty Crop Block Grant, $98,587.00. (2017).

**Not Awarded**
Limb, Ryan (Principal:), Geaumont, Benjamin (Co-Principal:), DeSutter, Thomas (Co-Principal:), DeKeyser, Edward (Co-Principal:), Harris, Marion (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Management strategies to improve Conservation Reserve Program habitat quality and livestock grazing value," Sponsored by North Dakota Industrial Commission - Outdoor Heritage Program, State, $949,569.00. (May 2014 - May 2017).

**Hopkins, David G. (Associate Professor)**

**Funded**
Hopkins, David G (Principal: Sampling design, mentoring graduate student, outreach), Steele, Dean E (Co-Principal: Development of evapotranspiration maps; sampling design), "Evaluating Soil Health using Remotely Sensed Evapotranspiration on the Benchmark Barnes Soils of North Dakota," Sponsored by Cass County Soil and Water Conservation District (SWCD), Local, $10,500.00. (June 1, 2015 - Present).

**Funded**
Hopkins, David G (Principal: PI, sampling design, mentor to graduate student, outreach), Steele, Dean D (Co-Principal: development of evapotranspiration maps, sampling design), "Evaluating Soil Health using Remotely Sensed Evapotranspiration on the Benchmark Barnes Soils of North Dakota," Sponsored by USDA/NRCS Soil Survey Division, Federal, $95,637.00. (September 3, 2015 - September 30, 2018).

**Funded**

**Funded**
Hopkins, David, Bohn, Meyer, "ND EPSCoR - (INSPIRE-ND) - GSRA - Hopkins (Bohn)," Sponsored by NSF EPSCoR, Federal, $40,162.00. (April 16, 2016 - April 15, 2018).
Not Awarded

Not Awarded
Wick, Abbey (Principal:), Chatterjee, Amitava (Co-Principal:), Balasubramanian, Narayanaganesh (Co-Principal:), Xu, Yiwen (Co-Principal:), Reese, Amy (Co-Principal:), Hopkins, David (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Mitigating the unexpected consequences of climate and land-use changes on northern Great Plains fragile soils," Sponsored by USDA-Agriculture and Food Research Initiative: Food Security, Federal, $3,997,519.00. (October 1, 2015 - September 30, 2019).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Steele, Dean (Co-Principal:), Casey, Francis (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Hopkins, David (Co-Principal:), Reese, Amy (Co-Principal:), Xu, Yiwen (Co-Principal:), "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).

Hovick, Torre J. (Assistant Professor)
Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Monitoring native pollinator communities throughout North Dakota: Status and management considerations for species of conservation concern," Sponsored by North Dakota Department of Agriculture, State, $699,100.00. (October 2016 - April 2021).

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Kral, Katherine (Co-Principal:), "Influence of land-use practices on site occupancy of Monarchs (Danaus plexippus), Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by USDI Fish & Wildlife Service, Federal, $87,441.00. (May 2015 - April 2020).

Funded
Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Enhancing Floral Resources for High Conservation Priority Pollinators," Sponsored by North Dakota Game & Fish, State, $92,492.00. (2017 - 2019).

Funded

Funded

Funded

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), "Influence of land-use practices on site occupancy of Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by North Dakota Game & Fish, State, $42,000.00. (July 2016 - July 2017).

Not Awarded
Fuhlendorf, S D (Principal:), Elmore, D (Co-Principal:), Baum, K (Co-Principal:), Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "A new model for rangeland management to simultaneously promote production and pollinators," Sponsored by USDA AFRI, Federal, $1,000,000.00. (2017 - 2021).

Not Awarded
Hovick, Torre (Principal:), Limb, Ryan (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), Toledo, David (Co-Principal:), Undi, Michael (Co-Principal:), "Restoring Multi-Functionality To A Novel Ecosystem," Sponsored by USDA AFRI, Federal, $499,907.00. (January 2017 - December 2020).

Not Awarded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Neville, Bryan (Co-Principal:), "Restoring ecosystem services through heterogeneity-based land management," Sponsored by USDA AFRI, $498,828.00. (January 2016 - December 2019).

Not Awarded
Geaumont, Benjamin (Principal:), Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), Schauer, C (Co-Principal:), Toledo, D (Co-Principal:), "Restoring Fire as a Natural Process in the North Central Region: Response of Livestock, Community, and Environment," Sponsored by USDA–SARE (NCR), Other, $200,000.00. (October 1, 2017 - September 30, 2019).

Limb, Ryan (Assistant Professor)
Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $60,000.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Sponsored by North Dakota Industrial Commission - Lignite Research Council, State, $578,187.00. (June 2016 - May 2021).

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Monitoring native pollinator communities throughout North Dakota: Status and
management considerations for species of conservation concern," Sponsored by North Dakota Department of Agriculture, State, $699,100.00. (October 2016 - April 2021).

Funded
Limb, Ryan (Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), Kral, Katherine (Co-Principal:), "Influence of land-use practices on site occupancy of Monarchs (Danaus plesippus), Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by USDI Fish & Wildlife Service, Federal, $87,441.00. (May 2015 - April 2020).

Limb, Ryan (Co-Principal:), Hovick, Torre (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Enhancing Floral Resources for High Conservation Priority Pollinators," Sponsored by North Dakota Game & Fish, State, $92,492.00. (2017 - 2019).

Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reducing soil compaction for improved reclamation of lands impacted by oil and gas well-pad site development," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $368,725.00. (July 1, 2017 - June 30, 2019).

Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).


Limb, Ryan (Co-Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota 2017-2019," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $425,000.00. (July 1, 2017 - June 30, 2019).

Limb, Ryan (Co-Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $309,508.00. (October 2015 - June 2017).

Limb, Ryan (Co-Principal:), Hovick, Torre (Co-Principal:), Harmon, Jason (Co-Principal:), "Influence of land-use practices on site occupancy of Dakota Skippers (Hesperia dacotae) and other prairie dependent butterflies," Sponsored by North Dakota Game & Fish, State, $42,000.00. (July 2016 - July 2017).

Limb, Ryan (Co-Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $309,508.00. (October 2015 - June 2017).

Not Awarded
Fuhlendorf, S D (Principal:), Elmore, D (Co-Principal:), Baum, K (Co-Principal:), Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "A new model for rangeland management to simultaneously promote production and pollinators," Sponsored by USDA AFRI, Federal, $1,000,000.00. (2017 - 2021).
Not Awarded
Hovick, Torre (Principal:), Limb, Ryan (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), Toledo, David (Co-Principal:), Undi, Michael (Co-Principal:), "Restoring Multi-Functionality To A Novel Ecosystem," Sponsored by USDA AFRI, Federal, $499,907.00. (January 2017 - December 2020).

Not Awarded
McGranahan, Devan (Principal:), Daigh, Aaron (Co-Principal:), Limb, Ryan (Co-Principal:), Dixon, C (Co-Principal:), "Connecting duff and soil moisture with soil heating, hydrophobicity in Northern Plains grassland," Sponsored by USDI–Joint Fire Science Program, Other, $292,450.00. (January 1, 2016 - December 31, 2019).

Not Awarded
Limb, Ryan (Principal:), Harmon, Jason (Co-Principal:), Hovick, Torre (Co-Principal:), McGranahan, Devan (Co-Principal:), Neville, Bryan (Co-Principal:), "Restoring ecosystem services through heterogeneity-based land management," Sponsored by USDA AFRI, $498,828.00. (January 2016 - December 2019).

Not Awarded
Geaumont, Benjamin (Principal:), Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), Schauer, C (Co-Principal:), Toledo, D (Co-Principal:), "Restoring Fire as a Natural Process in the North Central Region: Response of Livestock, Community, and Environment," Sponsored by USDA–SARE (NCR), Other, $200,000.00. (October 1, 2017 - September 30, 2019).

Not Awarded
Limb, Ryan (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Roberts, David (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

Not Awarded

Not Awarded

Not Awarded
McGranahan, D (Principal:), Hovick, T (Co-Principal:), Limb, Ryan (Co-Principal:), Geaumont, B (Co-Principal:), Schauer, C (Co-Principal:), "A novel application of patch-burn grazing in the Northern Great Plains: can sheep fit in?," Sponsored by USDA-AFRI, $149,963.00. (2017).

Not Awarded
Hovick, T (Principal:), Limb, Ryan (Co-Principal:), Harmon, J (Co-Principal:), McGranahan, D (Co-Principal:), Geaumont, B (Co-Principal:), Toledo, D (Co-Principal:), Undi, M (Co-Principal:), Sedivec, K (Co-Principal:), "Restoring multi-functionality to a novel ecosystem: livestock, plant, and pollinator responses to interacting fire and grazing in bluegrass dominate agro-ecosystems," Sponsored by USDA-AFRI, $499,907.00. (2017).

Not Awarded
Limb, Ryan (Principal:), Geaumont, Benjamin (Co-Principal:), DeSutter, Thomas (Co-Principal:), DeKeyser, Edward (Co-Principal:), Harris, Marion (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Management strategies to improve Conservation Reserve Program habitat quality and livestock grazing value,” Sponsored by North Dakota Industrial Commission - Outdoor Heritage Program, State, $949,569.00. (May 2014 - May 2017).

McGranahan, Devan A. (Assistant Professor)
Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - Little Missouri: West Slope," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - McKenzie District: Pastures 8 & 9 VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - Medora District: Central and NE Slope VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - Medora District: South Central Billings VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: Central and NE Slope VMP," Sponsored by North Dakota Grazing Association, Private, $15,000.00. (April 2017 - December 2019).

Funded

Funded
Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), "Enhancing Floral Resources for High Conservation Priority Pollinators," Sponsored by North Dakota Game & Fish, State, $92,492.00. (2017 - 2019).

Funded

Not Awarded
McGranahan, Devan (Principal:), "CAREER: Fescue and fire in grasslands as a cross-continental model of plant response to global environmental change," Sponsored by National Science Foundation, Federal, $808,530.00. (January 1, 2016 - December 31, 2021).

Not Awarded
Hovick, Torre (Principal:), Limb, Ryan (Co-Principal:), Harmon, Jason (Co-Principal:), McGranahan, Devan (Co-Principal:), Geaumont, Benjamin (Co-Principal:), Toledo, David (Co-Principal:), Undi, Michael (Co-
Not Awarded
McGranahan, Devan (Principal:), Yurkonis, K (Co-Principal:), Carr, Patrick (Co-Principal:), Travers, Steven (Co-Principal:), Daigh, Aaron (Co-Principal:), "A climate variability 'stress test' for crops and rangelands in the Northern Great Plains," Sponsored by USDA-NIFA/AFRI, Federal, $348,096.00. (January 1, 2016 - December 31, 2020).

Not Awarded
McGranahan, Devan (Principal:), Daigh, Aaron (Co-Principal:), Limb, Ryan (Co-Principal:), Dixon, C (Co-Principal:), "Connecting duff and soil moisture with soil heating, hydrophobicity in Northern Plains grassland," Sponsored by USDI–Joint Fire Science Program, Other, $292,450.00. (January 1, 2016 - December 31, 2019).

Not Awarded
Limb, Ryan (Principal:), Harmon, Jason (Co-Principal:), Hovick, Torre (Co-Principal:), McGranahan, Devan (Co-Principal:), Neville, Bryan (Co-Principal:), "Restoring ecosystem services through heterogeneity-based land management," Sponsored by USDA AFRI, $498,828.00. (January 2016 - December 2019).

Not Awarded
Geaumont, Benjamin (Principal:), Hovick, Torre (Co-Principal:), Limb, Ryan (Co-Principal:), McGranahan, Devan (Co-Principal:), Schauer, C (Co-Principal:), Toledo, D (Co-Principal:), "Restoring Fire as a Natural Process in the North Central Region: Response of Livestock, Community, and Environment," Sponsored by USDA–SARE (NCR), Other, $200,000.00. (October 1, 2017 - September 30, 2019).

Funded
Norland, Jack E. (Associate Professor)
Norland, Jack (Principal:), "Analysis of Practices that Lead to Successful Prairie Reconstructi," Sponsored by US FWS, Federal, $7,050.00. (June 1, 2017 - June 1, 2022).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - Little Missouri: West Slope," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - McKenzie District: Pastures 8 & 9 VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - Medora District: Central and NE Slope VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

Funded
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: Central and NE Slope VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 2017 - December 2021).
Sedivec, Kevin (Principal:), Norland, Jack (Co-Principal:), McGranahan, Devan (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: South Central Billings VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 2017 - December 2021).

**Funded**


**Funded**

Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: Central and NE Slope VMP," Sponsored by North Dakota Grazing Association, Private, $15,000.00. (April 2017 - December 2019).

**Funded**


**Funded**

Sedivec, Kevin (Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grassland," Sponsored by USDA Forest Service, Federal, $49,826.00. (October 2016 - December 2019).

**Funded**

Mortenson, Adam (Principal:), Norland, Jack (Co-Principal:), "Graduate Student Research Award," Sponsored by ND EPSCoR, Federal, $42,046.00. (August 16, 2017 - August 15, 2019).

**Funded**


**Funded**

Hargiss, Christina (Principal:), Norland, J E (Co-Principal:), "Ecosystem Impacts and Environmental Stakeholder Perceptions of the Fargo Project," Sponsored by City of Fargo, $95,133.00. (2015 - 2018).

**Funded**


**Not Awarded**

Norland, Jack (Principal:), Hargiss, Christina (Co-Principal:), Meehan, Miranda (Co-Principal:), "Using scenarios to inform policy interventions on land use and decisions in the Plains and Prairie Pothole LCC," Sponsored by United States Fish and Wildlife Service, Federal, $31,014.00. (October 1, 2017 - September 30, 2019).

**Not Awarded**


**Not Awarded**

Mahalingam, Ganapathy, Srivastava, Malini (Principal:), Reed, Wendy (Principal:), Aly Ahmed, Bakr, Christenson, Mike, Cwiak, Carol, Fischer, Dominic, Ge, Yue, Kim, Young, Kirkwood, Matthew, Kirkwood, Meghan, Strand, Michael, Urness, Cindy, Norland, Jack (Principal:), Zhang, Lei, Day, Stephanie, Gong, Na, Yang, Huojun, Hong, Miyoung, 'NexCS: Next Generation Community Systems,'
Sponsored by North Dakota State University, North Dakota State University, $999,827.00. (August 16, 2016 - August 15, 2017).

Rider, David A. (Professor)

**Funded**

**Funded**

**Funded**

**Funded**

Sedivec, Kevin K. (Professor)

**Funded**
Meehan, Miranda (Principal:), Sedivec, Kevin (Other: Collaborator), DeSutter, Thomas (Other: Collaborator), Daigh, Aaron, Augustin, Chris (Other: Collaborator), "USDA NIFA, Hatch project 1009707: Remediation options to enhance ecosystem services of lands in North Dakota," Sponsored by USDA, NIFA, Federal, $200,000.00. (June 1, 2016 - Present).

**Funded**
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring vegetation on the Little Missouri National Grasslands - McKenzie District: Pastures 8 & 9 VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 1, 2017 - December 31, 2021).

**Funded**
Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: Central and NE Slope VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 2017 - December 2021).

**Funded**
Sedivec, Kevin (Principal:), Norland, Jack (Co-Principal:), McGranahan, Devan (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: South Central Billings VMP," Sponsored by USDA Forest Service, Federal, $75,000.00. (June 2017 - December 2021).

**Funded**
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

**Funded**
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $120,000.00. (June 2016 - May 2021).

Funded

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Private, $60,000.00. (June 2016 - May 2021).

Funded

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Management practices to improve soil and vegetation parameters on reclaimed North Dakota coal mine lands," Sponsored by North Dakota Industrial Commission - Lignite Research Council, State, $578,187.00. (June 2016 - May 2021).

Funded


Funded

Sedivec, Kevin (Principal:), McGranahan, Devan (Co-Principal:), Norland, Jack (Co-Principal:), "Monitoring Vegetation on the Little Missouri National Grasslands – Medora District: Central and NE Slope VMP," Sponsored by North Dakota Grazing Association, Private, $15,000.00. (April 2017 - December 2019).

Funded


Funded

Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota 2017-2019," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $425,000.00. (July 1, 2017 - June 30, 2019).

Funded

Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Casey, Francis (Co-Principal:), "Reducing soil compaction for improved reclamation of lands impacted by oil and gas well-pad site development," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $368,725.00. (July 1, 2017 - June 30, 2019).

Funded


Funded


Funded

Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).

Funded
Limb, Ryan (Principal:), Sedivec, Kevin (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Reclamation options for legacy brine waste pits in north central North Dakota," Sponsored by North Dakota Industrial Commission - Oil and Gas Research Council, State, $309,508.00. (October 2015 - June 2017).

Not Awarded
Limb, Ryan (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Wick, Abbey (Co-Principal:), Roberts, David (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Demonstrating the impacts of grassland to row crops on soil health in the northern Great Plains," Sponsored by USDA NRCS, Federal, $499,404.00. (January 2015 - December 2018).

Not Awarded
Limb, Ryan (Principal:), Geaumont, Benjamin (Co-Principal:), DeSutter, Thomas (Co-Principal:), DeKeyser, Edward (Co-Principal:), Harris, Marion (Co-Principal:), Sedivec, Kevin (Co-Principal:), "Management strategies to improve Conservation Reserve Program habitat quality and livestock grazing value," Sponsored by North Dakota Industrial Commission - Outdoor Heritage Program, State, $949,569.00. (May 2014 - May 2017).

Voldseth, Deirdre A. (Associate Professor)

Funded

Funded
Voldseth, Deirdre, "Using biofertilizers to enhance mutualisms between specialty crops and beneficial insects," Sponsored by ND Department of Agriculture, 2016 Specialty Crop Block Grant., $90,464.00. (October 2016 - June 2019).

Funded

Funded

Funded
Prischmann-Voldseth, Deirdre (Principal:), "Canola flea beetle trial," Sponsored by Monsanto, $12,348.00. (May 2017 - April 2018).

Funded

Funded
Voldseth, Deirdre (Other:), "Development of multipurpose potato cultivars with enhanced quality, disease and pest resistance – North Central region," Sponsored by USDA-NIFA Special Potato Grants Program, $426,650.00. (September 1, 2014 - August 31, 2017).

Funded

Not Awarded
Harris, Marion, Voldseth, Deirdre, "Novel management methods for swede midge, a devastating invasive insect pest of brassicas," Sponsored by USDA, AMS, Specialty Crop Block Grant, $98,587.00. (2017).

Wick, Abbey F. (Assistant Professor)

Funded
Daigh, Aaron (Principal:), Gasch, Caley (Co-Principal:), Ripplinger, David (Co-Principal:), Wick, Abbey (Co-Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), Clay, D (Co-Principal:), Clay, S (Co-Principal:), Reese, C (Co-Principal:), "Cover crops and no-tillage enhance soil water management in frigid northern Great Plains soils." Sponsored by Natural Resource Conservation Service – Conservation Innovation Grant, Federal, $999,327.00. (2017 - 2020).

Funded

Funded
Gasch, Caley (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), Wick, Abbey (Co-Principal:), "Defining saline patches in row crop fields: biotic communities and implications for zone management," Sponsored by NDSU Agriculture Experiment Station, North Dakota State University, $63,592.00. (November 15, 2017 - June 30, 2019).

Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Corn Council, State, $135,958.00. (July 1, 2017 - June 30, 2019).

Funded
Wick, Abbey (Principal:), Gasch, Caley (Co-Principal:), "Adoption of cover crops to build soil health in the northern plains (continuation)," Sponsored by North Central Region Sustainable Agriculture Research and Education Partnership Grant program, Federal, $29,488.00. (May 1, 2017 - April 30, 2019).

Funded
Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Corn Research and Promotion Council, $38,231.00. (2017 - 2018).

Funded
Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by North Dakota Corn Council, $57,430.00. (2017 - 2018).

Funded
Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by North Dakota Soybean Council, $57,430.00. (2017 - 2018).

Funded
Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation and corresponding field days," Sponsored by Minnesota Soybean Growers, $26,075.00. (2017 - 2018).
Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Corn Utilization Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded

Gasch, Caley (Principal:), Wick, Abbey (Co-Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Managing salinity with cover crops: a whole system response," Sponsored by North Dakota Soybean Council, State, $45,121.00. (July 1, 2017 - June 30, 2018).

Funded

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), Gasch, Caley (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 5)," Sponsored by ND Soybean Council, State, $57,785.00. (July 1, 2017 - June 30, 2018).

Funded

Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Corn Growers, $13,296.00. (2016 - 2017).

Funded

Daigh, Aaron (Co-Principal:), DeJong-Hughes, J (Principal:), Malvick, D (Co-Principal:), Wick, A (Co-Principal:), Glogoza, P (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by Minnesota Soybean Growers, $32,698.00. (2016 - 2017).

Funded

Daigh, Aaron (Principal:), DeJong-Hughes, J (Co-Principal:), Wick, A (Co-Principal:), "Maximizing soil warming and health under different tillage practices in a corn-soybean rotation," Sponsored by North Dakota Soybean Council, $47,155.00. (2016 - 2017).

Funded

Wick, Abbey (Principal:), Reese, Amy (Co-Principal:), Kumar, Ajay (Co-Principal:), DeSutter, Thomas (Co-Principal:), Sedivec, Kevin (Co-Principal:), Limb, Ryan (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Demonstrating the Impacts of Grassland Conversion to Row Crops on Soil Health in the Northern Great Plains," Sponsored by Conservation Innovation Grant -- NRCS, Federal, $1,010,127.00. (2014 - 2017).

Funded

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), "Wheat Response to Salinity/Soil Health," Sponsored by ND Wheat Commission, State, $20,970.00. (July 1, 2016 - October 31, 2017).

Funded

Berti, Marisol T (Principal:), Wick, Abbey (Co-Principal:), "Enhancing Soil Health with Cover Crops in North Dakota Training Program," Sponsored by University of Minnesota, State, $71,012.00. (October 1, 2015 - September 30, 2017).

Funded

DeSutter, Thomas, Chatterjee, Wick, Abbey, "Improving Soil Health and Productivity of Sodic Soils," Sponsored by ND Soybean Council, $29,211.00. (July 1, 2016 - June 30, 2017).

Funded


Funded
Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 4)," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

**Not Awarded**

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm (year 4)," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

**Not Awarded**

Wick, Abbey (Principal:), Chatterjee, Amitava (Co-Principal:), Balasubramanian, Narayanaganesh (Co-Principal:), Xu, Yiwen (Co-Principal:), Reese, Amy (Co-Principal:), Hopkins, David (Co-Principal:), Daigh, Aaron (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Mitigating the unexpected consequences of climate and land-use changes on northern Great Plains fragile soils," Sponsored by USDA Agriculture and Food Research Initiative: Food Security, Federal, $3,997,519.00. (October 1, 2015 - September 30, 2019).


**Not Awarded**


Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Daigh, Aaron (Co-Principal:), Chatterjee, Amitava (Co-Principal:), Casey, Francis (Co-Principal:), Hopkins, David (Co-Principal:), Reese, Amy (Co-Principal:), Xu, Yiwen (Co-Principal:), "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS Conservation Innovation Grant, Federal, $988,279.00. (September 2016 - September 2018).

**Not Awarded**

DeSutter, Thomas, Clay, Daigh, Aaron, Steele, Dean, Casey, Francis, Chatterjee, Wick, Abbey, Hopkins, Roberts, David, Malo, Reese, Carlson, Xu, Yiwen, Chang, Schumacher, Reiks, "Cover Cropping Techniques for Improving Soil Health and the Managing of Saline and Sodic Soils within the Northern Great Plains," Sponsored by NRCS CIG, $988,279.00. (September 30, 2015 - September 29, 2018).

Wick, Abbey, Jacobson, "Agriculture in the City (indoor exhibit development)," Sponsored by ND Corn Council, State, $50,000.00. (2017).

Wick, Abbey, Jacobson, "Agriculture in the City (indoor exhibit development)," Sponsored by ND Soybean Council, State, $50,000.00. (2017).


Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Casey, Francis (Co-Principal:), "Improving Soil Health and Productivity of Remediated Oil-Spill Soil," Sponsored by Tesoro (non-competitive grant), $300,000.00. (2014 - 2017).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), Chatterjee, Amitava (Co-Principal:), "Improving Soil Health and Productivity in Sodic Soils," Sponsored by ND Soybean Council, State, $29,211.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Harmon, Jason (Co-Principal:), DeSutter, Thomas (Co-Principal:), "Interpretation and Sharing of Information from Soybean and Pest Pressure Response to Salinity (year 4)," Sponsored by ND Soybean Council, State, $33,571.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Daigh, Aaron (Co-Principal:), "Maximizing Soil Warming and Health under Tillage Practices in a Corn-Soybean Rotation," Sponsored by ND Soybean Council, State, $47,155.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the Soil Health and Agriculture Research Extension (SHARE) Farm," Sponsored by ND Soybean Council, State, $82,513.00. (July 1, 2016 - June 30, 2017).

Wick, Abbey (Principal:), DeSutter, Thomas (Co-Principal:), "Maximizing Soil Warming and Health under Different Tillage Practices in Corn-Soybean Rotation (year 2)," Sponsored by ND Corn Council, State, $33,310.00. (July 1, 2015 - June 30, 2017).

Wick, Abbey (Principal:), Casey, Francis (Co-Principal:), Ripplinger, David (Co-Principal:), "Research and Extension Efforts at the SHARE Farm," Sponsored by ND Corn Council, State, $141,341.00. (July 1, 2015 - June 30, 2017).

Zeleznik, Joe (Extension Specialist)

Funded
Zeleznik, Joseph (Principal:), "(Unrestricted gift)," Sponsored by Grand Forks County Water Resources District, Local, $2,500.00. (December 2017 - Present).

Funded
Zeleznik, Joseph (Principal:), "Augmenting tree species recommendations by evaluating a ‘natural experiment’ in North Dakota.," Sponsored by USDA, North Dakota State University, $52,141.00. (2017 - Present).

Funded
Zeleznik, Joseph (Supporting: Directing the project with Myra Arboretum personnel), "Myra Arboretum - Phase II," Sponsored by ND Forest Service, State, $10,000.00. (June 2017 - November 2018).

Not Awarded

Vet Diagnostic Services

Webb, Brett (Director)


Webb, Brett T (Principal:), "Member Laboratory Cooperative Agreement," Sponsored by USDA, Federal, $120,693.00. (June 15, 2017 - June 14, 2018).
Agribusiness and Applied Econ

Caton, James (Assistant Professor)

Refereed Journal Articles

Journal Article (Submitted)

Other Intellectual Contributions

Encyclopedia Entries (Accepted)

(Submitted)
http://ssrn.com/abstract=2330059

Hanson, Erik (Assistant Professor)

Refereed Journal Articles

Journal Article (Accepted)

Hearne, Robert (Professor)

Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Book Chapter (Published)

Herren, Robert S. (Professor)

Other Intellectual Contributions

Book Chapter

**Jackson, Jeremy (Associate Professor)**

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Accepted)*

*Journal Article (Submitted)*

**Other Intellectual Contributions**

*Book Chapter*

**Lim, Siew H. (Associate Professor)**

**Refereed Journal Articles**

*Journal Article (Accepted)*

**Machunda, Zachary (Lecturer)**

**Other Intellectual Contributions**

*Book Review (Published)*

**Miljkovic, Dragan (Professor)**

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*
Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Book Chapter (Published)

Nganje PhD, William (Professor)

Other Intellectual Contributions

Book (Published)

Ripplinger, David G. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

*Journal Article (Published)*

*Journal Article (Published)*

**Other Intellectual Contributions**

*Research Report (Published)*

*Research Report (Published)*

*Research Report (Published)*

*Research Report (Published)*

*Research Report (Published)*

Shaik, Saleem (Associate Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

Sharma, Anupa (Assistant Professor)

**Other Intellectual Contributions**

*Book Chapter (Published)*
Wachenheim, Cheryl J. (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*
http://dx.doi.org/10.1080/13669877.2017.1281337

*Journal Article (Accepted)*

*Journal Article (Accepted)*

**Other Intellectual Contributions**

*Popular Press Publication (Published)*
https://www.ag.ndsu.edu/news/columns/spotlight-on-economics/spotlight-on-economics-is-an-unmanned-aerial-vehicle-for-you

Wilson, William W. (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Accepted)*

*Journal Article (In Preparation; Not Yet Submitted)*

*Journal Article (In Preparation; Not Yet Submitted)*

**Other Intellectual Contributions**

*Book Chapter (Published)*
Miscellaneous Publications (Published)

Zhang, Lei (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Agricultural & Biosystems Eng

Bajwa, Sreekala (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article

Journal Article

Journal Article

Journal Article

Journal Article

Journal Article

**Non-Refereed Journal Articles**

*Journal Article (Submitted)*

**Other Intellectual Contributions**

*Book Chapter*

*Book Chapter*

*Book Chapter*

*Popular Press Article*

Cannayen, Igathinathane (Associate Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article*

**Non-Refereed Journal Articles**

*Journal Article (Published)*
Jia, Xinhua (Associate Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Accepted)*

*Journal Article (Submitted)*

*Journal Article (Submitted)*

*Journal Article*

**Other Intellectual Contributions**

*Extension Publication (Published)*

*Book Chapter (Published)*

Hellevang, Kenneth (Professor)

**Other Intellectual Contributions**

(Published)
Lin, Zhulu (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Nahar, Nurun

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Rahman, Shafiqur (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)
Scherer, Thomas (Associate Professor)

Refereed Journal Articles

*Journal Article (Published)*

*Journal Article (Submitted)*

Other Intellectual Contributions

*Extension Publication (Published)*

*Extension Publication (Published)*

*Extension Publication (Published)*

Simsek, Halis (Assistant Professor)

Refereed Journal Articles

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Accepted)*


*Conference Proceedings*

*Conference Proceeding (Accepted)*


*Conference Proceeding (Accepted)*


Steele, Dean D. (Associate Professor)

*Refereed Journal Articles*

*Journal Article (Published)*


*Journal Article (Published)*


*Journal Article (Submitted)*


*Journal Article*


Wiesenborn, Dennis P. (Professor)

*Refereed Journal Articles*

*Journal Article (Published)*


*Journal Article (Submitted)*
Animal Science

Bauer, Marc L. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Berg, Eric P. (Professor)

Other Intellectual Contributions

Book Chapter (Published)

Borowicz, Pawel (Research Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article**

**Non-Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**

**Conference Proceedings**

**Conference Proceeding (Published)**

**Conference Proceeding (Published)**

**Other Intellectual Contributions**

**Abstract (Published)**

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Extension Publication (Published)

Extension Publication (Published)

Research Report (Published)
expression of the fructose transporter GLUT5 in bovine tissues and fluids from days 16 to 50 of gestation (pp. 29-33). 2016 Central Grasslands REC Annual Report. (Current Status: Published).

Research Report (Published)

Research Report (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)
Abstract (Accepted)

Carlin, Kasey R. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Research Report (Published)

Research Report (Published)
Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article

Journal Article

Conference Proceedings

Conference Proceeding (Published)

**Conference Proceeding**


**Conference Proceeding**


**Conference Proceeding**


**Conference Proceeding**


**Conference Proceeding**


**Other Intellectual Contributions**

*Abstract (Published)*


*Abstract (Published)*


*Abstract (Published)*


**Abstract (Published)**


**Abstract (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**

Abstract (Published)

Abstract (Published)

Abstract (Accepted)

Abstract

Abstract

Abstract

Abstract

Abstract

Abstract
Abstract

Abstract

Abstract

Book Chapter

Research Report

Research Report

Christenson, Lisa A. (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Accepted)

Dahlen, Carl R. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Accepted)**


**Journal Article (Accepted)**


**Journal Article (Accepted)**


**Journal Article**


**Conference Proceedings**

**Conference Proceeding (Published)**


**Conference Proceeding (Published)**


**Conference Proceeding (Published)**


Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)
Abstract (Published)

Abstract (Published)

Abstract (Published)

Extension Impact Report (Published)
https://www.ag.ndsu.edu/impactstatements/impact-statements/2017-statements/17state-dahlenmeehanlm.pdf/view

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Abstract (Published)

Abstract (Published)

Press Release (Published)

Press Release (Published)
Press Release (Published)
Dahlen, C. (2017). *Anthrax May be a Danger to ND Livestock*. NDSU Ag Communications. (Current Status: Published).

Press Release (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Abstract (Published)

Research Report (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

**Magazine/Trade Publication (Published)**


**Magazine/Trade Publication (Published)**


**Extension Curriculum, Presentations (Published)**


**Extension Curriculum, Presentations (Published)**


**Extension Educational Video (Published)**


**Abstract (Published)**


**Abstract (Published)**


**Abstract (Published)**


**Press Release (Published)**


**Magazine/Trade Publication (Published)**


**Press Release (Published)**


**Abstract (Accepted)**

Grazul-Bilska, Anna (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

**Other Intellectual Contributions**

*Abstract (Published)*

*Abstract (Published)*

*Abstract (Published)*

Hammer, Carolyn (Associate Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

**Other Intellectual Contributions**

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Magazine/Trade Publication (Published)

Hanna, Lauren (Assistant Professor)

**Refereed Journal Articles**

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Extension Publication (Published)

Extension Publication (Published)

Magazine/Trade Publication (Published)

Research Report (Published)

Abstract (Published)

Hoffman, Travis (Assistant Professor)

Other Intellectual Contributions

Research Report (Submitted)

Maddock, Robert (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Non-Refereed Journal Articles**

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Other Intellectual Contributions**

**Extension Publication (Published)**


Meehan, Miranda A. (Assistant Professor)

**Refereed Journal Articles**

**Journal Article (Published)**


**Journal Article (Revising to Resubmit)**

**Journal Article (Not Accepted)**


**Other Intellectual Contributions**

**Abstract (Published)**


**Extension Impact Report (Published)**


**Extension Impact Report (Published)**


**Extension Impact Report (Published)**


**Research Report (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Research Report (Published)**


**Extension Educational Video (Published)**

App (Published)

App (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Magazine/Trade Publication (Published)
Extension Curriculum, Presentations (Published)

Extension Curriculum, Presentations (Published)

Extension Publication (Published)

Extension Educational Video (Published)

Press Release (Published)
Meehan, M., Sedivec, K. (2017). Determine Grazing Readiness Prior to Pasture Turnout. NDSU Ag Communications. (Current Status: Published).

Press Release (Published)

Press Release (Published)

Press Release (Published)

App (Published)

App (Published)

Extension Publication (Published)

Press Release (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Extension Curriculum, Activity

Extension Curriculum, Handout

Extension Curriculum, Presentations

Extension Curriculum, Presentations

Extension Curriculum, Handout

Extension Curriculum, Handout

Extension Curriculum, Handout

Extension Curriculum, Handout

Extension Curriculum, Handout

Extension Curriculum, Handout

Extension Curriculum, Activity

Redmer, Dale A. (Professor)

Refereed Journal Articles

Journal Article (Published)
enzyme activity, and insulin-containing cell cluster morphology during the estrous cycle in sheep. Domestic Animal Endocrinology, 59, 23-29. (Current Status: Published).

Non-Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Reynolds Ph.D., Lawrence (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article

Non-Refereed Journal Articles

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)

Conference Proceeding (Published)

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

**Abstract (Published)**


**Abstract (Published)**


**Abstract (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


Stokka, Gerald L. (Associate Professor)

Referred Journal Articles


**Other Intellectual Contributions**

**Book Chapter (Published)**

**Research Report (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Press Release (Published)**
Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release

Sun, XIN

Refereed Journal Articles

Journal Article (Published)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Submitted)

Conference Proceedings

Conference Proceeding (Published)
cross and Simmental steers (vol. 68, pp. 96-100). Proceedings Western Section of American Society of Animal Science. (Current Status: Published).

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Research Report (Published)

Book Chapter (Published)

Abstract (Accepted)

Book Chapter (Submitted)

Swanson, Kendall C. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Accepted)**


**Conference Proceeding**

**Conference Proceeding (Published)**

Conference Proceeding (Published)

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Book (Published)
Multiple Authors (2017). In K. Swanson & E. Crawford (Eds.), *North Dakota Beef Report*. Fargo, ND: North Dakota State University Agricultural Communications. (Current Status: Published).

Research Report (Published)
Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Abstract (Published)

Swanson, Tara J. (Lecturer)

Refereed Journal Articles

Journal Article (Published)

Vonnahme, Kimberly A. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Wagner, Sarah A. (Professor)

Refereed Journal Articles

Journal Article

Other Intellectual Contributions

Abstract (Published)

**Abstract**


Ward, Alison (Assistant Professor)

**Refereed Journal Articles**

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article**


**Conference Proceedings**

**Conference Proceeding (Published)**

Conference Proceeding (Published)

Conference Proceeding (Published)

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)
Abstract (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Accepted)
Microbiological Sciences

Bergholz, Peter W. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)
Petersen, M., Bergholz, P. (2017). Phylogroup D E. coli isolates from surface soil show greater biofilm production than fecal isolates. 77th Annual Meeting of the North Central Branch of American Society for Microbiology. (Current Status: Published).

Abstract (Published)

Abstract (Published)

Bergholz, Teresa (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Non-Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Berry, Eugene S. (Associate Professor)

Other Intellectual Contributions

Instructor's Manual (Published)

Gibbs, Penelope S. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)
Gustad, Thomas R. (Instructor)

Other Intellectual Contributions

Instructor's Manual (Published)

Instructor's Manual (Published)

McEvoy, John (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Pruess, Birgit (Professor)

Refereed Journal Articles

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)
Other Intellectual Contributions

Abstract (Published)

Ramamoorthy, Sheela (Associate Professor)

Non-Refereed Journal Articles

Journal Article (Published)
Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Book Chapter (Published)

Book Chapter (Published)
Extension Publication (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)
Abstract (Published)

Abstract (Published)

Abstract (Published)

Book Chapter (Accepted)

Book Chapter (Accepted)

Chittem, Kishore (PostDoc)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Del Rio Mendoza, Luis E. (Professor)

Refereed Journal Articles

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Accepted)

**Journal Article**

**Other Intellectual Contributions**

**Book Chapter (Published)**

**Abstract**


**Abstract**

Friskop, Andrew J. (Assistant Professor)

**Non-Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**

**Other Intellectual Contributions**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**


Journal Article (Accepted)

Journal Article (Accepted)

Journal Article (Accepted)

Journal Article (Accepted)

Journal Article (Accepted)

Journal Article (Accepted)

Other Intellectual Contributions

Cited Research (Published)

Extension Publication (Published)

Magazine/Trade Publication (Published)

Extension Publication

Khan, Mohamed F. R. (Professor)

Non-Refereed Journal Articles

Journal Article (Published)
Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Book Chapter (Published)

Book Chapter (Published)

Extension Publication (Published)

Guide (Published)


Magazine/Trade Publication (Published)

Manuscript (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

(Published)

**Extension Publication (Published)**

**Research Report (Published)**

**Research Report (In Preparation; Not Yet Submitted)**

**Abstract**

**Abstract**

**Research Report**

**Research Report**

**Research Report**

**Research Report**

**Research Report**

**Research Report**

**Research Report**
Research Report

Research Report

Research Report

Research Report

Research Report

Research Report

Knodel, Janet J. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)
Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (In Preparation; Not Yet Submitted)

Journal Article (In Preparation; Not Yet Submitted)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

**Book Chapter (Published)**


**Book Chapter (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


(Physical)


**Magazine/Trade Publication (Published)**


**Newsletter (Published)**


**Popular Press Articles (Published)**


*Extension Publication (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*Abstract (Published)*


*Press and Print Interview (Published)*


*Magazine/Trade Publication (Published)*


*Book Chapter (In Preparation; Not Yet Submitted)*

Knodel, J. Flea beetles (Phyllotreta spp.) and their management (pp. 1-12). Gadi V.P. Reddy (Ed.) Integrated management of insect pests on canola and other Brassica oilseed crops, CABI. (Current Status: In Preparation; Not Yet Submitted).

*Extension Publication*


*Press and Print Interview (Published)*


*Press and Print Interview*


*Press and Print Interview*


*Press and Print Interview*

Press and Print Interview  

Press and Print Interview  

Liu, Zhaohui (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Other Intellectual Contributions

Abstract (Published)  
Abstract (Published)

Abstract (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Ma, Guojia (PostDoc)

Non-Refereed Journal Articles

Journal Article (Working Paper)

Markell, Samuel (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Accepted)**


**Journal Article (Submitted)**

Journal Article

Journal Article (Working Paper)

Journal Article (Working Paper)

Journal Article (Working Paper)

Other Intellectual Contributions

Abstract (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Extension Publication (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Refereed Publication (Published)**

**Research Report (Published)**

**Videos (Published)**

**Research Report (Published)**

**Abstract (Published)**

**Abstract (Published)**

Trade Articles (Published)

Extension Publication (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract

Book Chapter

Extension Publication

Extension Publication

Extension Publication
Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Popular Press Article

Popular Press Article


Trade Articles

Nelson, Berlin D. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Accepted)**


**Journal Article (Working Paper)**


**Other Intellectual Contributions**

**Abstract (Published)**

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Book Chapter (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Magazine/Trade Publication (Published)
**Magazine/Trade Publication (Published)**

**Magazine/Trade Publication (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Popular Press Articles (Published)**

**Refereed Publication (Published)**

**Videos (Published)**

**Extension Publication**
Extension Publication

Extension Publication

Pasche, Julie S. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Accepted)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


**Book Chapter (Published)**


Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**


**Extension Publication (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**


**Referred Publication (Published)**


**Trade Articles (Published)**


**Extension Publication (Published)**


**Abstract (Published)**


**Book Chapter (Accepted)**


**Abstract**


**Book Chapter**


Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication

Extension Publication
Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Extension Publication (Published)

Extension Publication (Published)

Magazine/Trade Publication (Published)

Abstract (Published)


Extension Publication

Yan, Guiping (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Accepted)

Journal Article (Accepted)

**Journal Article (Accepted)**

**Non-Refereed Journal Articles**

**Journal Article (Working Paper)**

**Other Intellectual Contributions**

**Abstract (Published)**

**Abstract (Published)**

**Extension Publication (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Other extension publications (Disease diagnostic cards) (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

**Popular Press Article (Published)**

Research Report (Published)
Yan, G. (2017). Developing a qPCR assay to determine population densities of root-lesion nematodes (Pratylenchus penetrans) in soils to be planted to potato. Minnesota Area II Potato Research and Promotion Council and Northern Plains Potato Growers Association. (Current Status: Published).

Abstract (Published)

Abstract (Published)

Abstract (Published)

Research Report (Published)

Extension Publication

Extension Publication

Extension Publication

Zhong, Shaobin (Associate Professor)

Refereed Journal Articles

Journal Article (Accepted)
Journal Article (Accepted)

Non-Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Extension Publication (Published)

Zitnick, Kimberly (PostDoc)

Refereed Journal Articles

Journal Article (Published)
Plant Sciences

Berti, Marisol T. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)
http://www.etaflorence.it/proceedings/index.asp

Other Intellectual Contributions

Magazine/Trade Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Magazine/Trade Publication (Published)

Cai, Xiwen (Professor)

Refereed Journal Articles

Journal Article (Accepted)
Chen, Bingcan (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Christoffers, Michael J. (Associate Professor)

Conference Proceedings

Conference Proceeding (Accepted)
www.wsweedscience.org/publication/proceedings

Other Intellectual Contributions

Extension Publication (Published)

Elias, Elias (Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Gramig, Greta G. (Associate Professor)

Other Intellectual Contributions

Extension Publication (Published)

Book Chapter (Published)
Hall, Clifford (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

**Other Intellectual Contributions**

*Abstract (Published)*

*Review (Published)*

Hatterman-Valenti, Harlene (Professor)

**Non-Refereed Journal Articles**

*Journal Article (Published)*

**Other Intellectual Contributions**

*Extension Publication (Published)*
Helms, Ted (Professor)

**Other Intellectual Contributions**

*Popular Press Article (Published)*

*Extension Publication*

*Popular Press Article*

Horsley, Richard (Professor)

**Non-Refereed Journal Articles**

*Journal Article (Published)*

**Other Intellectual Contributions**

*Extension Publication (Published)*

Howatt, Kirk (Associate Professor)

**Non-Refereed Journal Articles**

*Journal Article (Submitted)*

**Conference Proceedings**

*Conference Proceeding (Published)*

*Conference Proceeding (Accepted)*

*Conference Proceeding (Accepted)*


*Conference Proceeding (Accepted)*


*Conference Proceeding (Accepted)*


*Conference Proceeding (Accepted)*


**Other Intellectual Contributions**

*Extension Publication (Published)*


*Research Report (Published)*


*Research Report (Published)*


*Research Report (Published)*


*Research Report (Published)*


*Research Report (Published)*


Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)
Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

www.ag.ndsu.edu/weeds/nd-weed-control-research

**Research Report (Published)**


www.ag.ndsu.edu/weeds/nd-weed-control-research

**Research Report (Published)**


www.ag.ndsu.edu/weeds/nd-weed-control-research

**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)

*Research Report (Published)*

*Research Report (Published)*

(Published)

Jain, Shalu

*Other Intellectual Contributions*

*Magazine/Trade Publication (Published)*

Johnson, Burton L. (Professor)

*Refereed Journal Articles*

*Journal Article (Published)*

Lee, Chiwon W. (Professor)

*Refereed Journal Articles*

*Journal Article (Published)*

Li, Deying (Associate Professor)

*Refereed Journal Articles*

*Journal Article (Published)*

*Journal Article (Published)*


*Journal Article (Published)*


Li, Xuehui (Assistant Professor)

*Non-Refereed Journal Articles*

*Journal Article (Published)*


*Journal Article (Published)*


Lym, Rodney (Professor)

*Other Intellectual Contributions*

*Extension Publication (Published)*


Manthey, Frank A. (Professor)

*Non-Refereed Journal Articles*

*Journal Article (Published)*


*Journal Article (Published)*

Marais, Gideon (Professor)

**Refereed Journal Articles**

*Journal Article (Accepted)*

**Non-Refereed Journal Articles**

*Journal Article (Accepted)*

McClean, Phillip (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

McGinnis, Esther E. (Assistant Professor)

**Refereed Journal Articles**

*Journal Article (Submitted)*

**Other Intellectual Contributions**

*Extension Publication (Published)*

*Magazine/Trade Publication (Published)*
Magazine/Trade Publication (Published)

Extension Publication (Published)
https://www.ag.ndsu.edu/drappletree

Extension Publication (Published)

Extension Publication (Accepted)

Oliver, Rebekah E. (Assistant Professor of Practice)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Osorno, Juan (Associate Professor)

Other Intellectual Contributions

Abstract (Published)

Book Chapter (Published)

Magazine/Trade Publication (Published)

Extension Publication (Published)

Extension Publication
Knodel, J., Beazuzay, P. B., Endres, G. J., Franzen, D. W., Kandel, H. J., Markell, S., Osorno, J., Pasche, J.,

Peters, Thomas J. (Assistant Professor)

Non-Refereed Journal Articles

Journal Article (Published)
Sugarbeet in Minnesota and Eastern North Dakota in 2016. 2016 Research and Extension Reports, 47,
97-100. (Current Status: Published). http://www.sbreb.org/Research/research.htm

Journal Article (Published)
Lueck, A. B., Peters, T. J., Khan, M. F.R., Boetel, M. A. (2017). Turning Point Survey of Weed Control and
Production Practices on Sugarbeet in Minnesota and Eastern North Dakota in 2015. 2016 Research and
Extension Reports, 47, 18-25. (Current Status: Published). http://www.sbreb.org/Research/research.htm

Conference Proceedings

Conference Proceeding (Published)
Haugrud, N. H., Peters, T. J. (2018). Delayed Cultivation to Supplement Chloroacetamide Herbicides in
Sugarbeet (vol. 72, pp. 81). Westminster, CO: North Central Weed Science Society. Submitted:
September 2017. Accepted: September 2017. (Current Status: Published). https://ncwss.org/wp-

Conference Proceeding (Published)
Submitted: September 2017. Accepted: September 2017. (Current Status: Published).
https://ncwss.org/wp-content/uploads/2017-North-Central-Weed-Science-Society-Proceedings-
w_attendees.pdf

Conference Proceeding (Accepted)
efficacy?. Westminster, CO: Western Society of Weed Science. (Current Status: Accepted).
www.wsweedscience.org/publication/proceedings

Other Intellectual Contributions

Extension Publication (Published)
State University. Submitted: December 2017. Accepted: December 2017. (Current Status: Published).

Extension Publication (Published)
Christoffers, M., Dalley, C., Endres, G., Gramig, G., Howatt, K., Jenks, B., Keene, C., Lym, R., Ostlie, M.,
Dakota Weed Control Guide (pp. 134). Fargo, ND: North Dakota State University Extension Service.
(Current Status: Published). www.ndsu.edu/weeds/

Research Report (Published)
Minnesota and Eastern North Dakota in 2016. (Current Status: Published).

Research Report (Published)
Minnesota and Eastern North Dakota in 2016. (Current Status: Published).
Extension Publication (Published)

Abstract (Published)

Research Report (Published)

Research Report (Published)
Research Report (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)
http://www.sbreb.org/Research/research.htm

Research Report (Published)
http://www.sbreb.org/Research/research.htm

Research Report (Published)
http://www.sbreb.org/Research/research.htm

Research Report (Published)

Research Report (Published)

Research Report (Published)
http://www.sbreb.org/Research/research.htm

Research Report (Published)
http://www.sbreb.org/Research/research.htm
Research Report (Published)
http://www.sbreb.org/Research/research.htm

Research Report (Published)

Extension Publication

Research Report

Rahman, Md Mukhlesur (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Abstract (Published)
Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract

Ransom, Joel K. (Professor)

Refereed Journal Articles

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)
Ransom, J. A Basic Primer on. (Current Status: Published).

Journal Article (Published)

Journal Article (Published)
Ransom, J., Paudyal, K., Adhikari, K. Factors Affecting the Adoption of Improved Maize Varieties in the Hills of Nepal. (Current Status: Published).

Journal Article (Published)
Ransom, J., Gerpacio, R., Ceniceros, F. G. Food Security and Sustainability of Natural Resources in Maize Based Systems in SE Asia: Challenges and Prospects. (Current Status: Published).

Journal Article (Published)
SAHA, H., GACHERU, E., KAMAU, G., O’NEILL, M., RANSOM, J. ICRAF. PO Box 27, Embu, Kenya* CIMMYT. PO Box 25171, Nairobi, Kenya. (Current Status: Published).

*Teaching Assistant*

**Journal Article (Published)**
REDA, F., BUTLER, L., EIETA, G., RANSOM, J. LANT PRODUCTION USING THE “AGAR GEL TECHNIQUE. (Current Status: Published).

**Journal Article (Published)**

**Journal Article (Published)**
Tindall, T., Mooso, G., Ransom, J., Horton, R., Raun, B., Blauer, J. B., Kiester, M., Fallahi, E. Published October 28, 2016. (Current Status: Published).

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Conference Proceedings**

**Conference Proceeding (Published)**

**Conference Proceeding (Published)**

**Other Intellectual Contributions**

**Technical Report (Published)**
Tripathi, B., Rajbhandari, N., Ransom, J. *Improved soil fertility management for sustainable maize production. eds.* Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT), Mexico DF (Mexico). (Current Status: Published).

*Technical Report (Published)*

Moshi, A., Ransom, J. *Maize research in Tanzania. eds.* (Current Status: Published).

*Technical Report (Published)*

Esilaba, A., Reda, F., Ransom, J., Woldewahid, G., Bayu, W., Zemichael, B. *Potential for relay cropping and improved fallows in soil fertility improvement and Striga control in Northern Ethiopia.* (Current Status: Published).

*Technical Report (Published)*

Tolessa, B., Ransom, J. *Proceedings of the National Maize Workshop of Ethiopia, 1. eds.* (Current Status: Published).

*Technical Report (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*Extension Publication (Published)*


*(Published)*

Robinson, Andrew P. (Assistant Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article*

**Other Intellectual Contributions**

*Extension Publication (Published)*

*Extension Publication (Published)*
Robinson, A. (2017). *Have a problem, ask the potato Dr.*. NDSU Extension Service publication. (Current Status: Published).

*Extension Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

**Magazine/Trade Publication (Published)**

**Magazine/Trade Publication (Published)**

**Magazine/Trade Publication (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Newsletter (Published)**

**Research Report (Published)**

**Extension Publication (Published)**

**Magazine/Trade Publication (Accepted)**


Schwarz, Paul B. (Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Extension Publication (Published)

Review (Published)

Shetty, Kalidas (Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Simsek, Senay (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

**Thompson, Asunta L. (Associate Professor)**

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

**Other Intellectual Contributions**

*Abstract (Published)*

*Magazine/Trade Publication (Published)*

*Magazine/Trade Publication (Published)*

*Extension Publication (Published)*

*Magazine/Trade Publication (Published)*

*Research Report*
Vegi, Anuradha (Assistant Professor of Practice)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

**Other Intellectual Contributions**

*Abstract (Published)*

West, Todd (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

**Non-Refereed Journal Articles**

*Journal Article (Published)*

**Conference Proceedings**

*Conference Proceeding*
Zollinger, Richard K. (Professor)

Non-Refereed Journal Articles

Journal Article (Published)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Extension Publication (Published)

(Published)

Press Release (Published)

Extension Publication

Zuk, Alan J. (Associate Professor)

Non-Refereed Journal Articles

Journal Article (Published)
School of Natural Resource Sci

Anderson, Karin (Research Scientist)

**Refereed Journal Articles**

*Journal Article (Published)*

Foster, S., Anderson, K., Casas, J. (2017). Sex pheromone in the moth Heliothis virescens is produced as a mixture of two pools: de novo and via precursor storage in glycerolipids. *Insect Biochemistry and Molecular Biology, 87*, 26-34. (Current Status: Published).

**Non-Refereed Journal Articles**

*Journal Article*


Anderson, Kirk (Research Scientist)

**Refereed Journal Articles**

*Journal Article (Accepted)*

Travers, S., Anderson, K., Harris, M. O. (in press). Breeding system and inbreeding depression in the rare orchid Platanthera praeclara in a fragmented grassland landscape. *Botany*. Accepted: November 2, 2017. (Current Status: Accepted).

Boetel Ph.D., Mark A. (Professor)

**Refereed Journal Articles**

*Journal Article (Published)*


*Journal Article (Published)*


*Journal Article (Accepted)*


*Journal Article (Accepted)*

Non-Refereed Journal Articles

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Conference Proceedings**

**Conference Proceeding (Published)**


**Other Intellectual Contributions**

**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Abstract (Published)**


**Extension Publication (Published)**

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)

Technical Report (Published)
Abstract (Published)

Abstract (Published)

Research Report

Research Report

Casey, Francis (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

**Journal Article (Accepted)**


**Journal Article (Accepted)**


**Journal Article (Submitted)**


**Other Intellectual Contributions**

**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


**Research Report (Published)**


Chatterjee, Amitava (Assistant Professor)

**Refereed Journal Articles**

**Journal Article (Published)**


**Journal Article (Published)**

Journal Article (Published)

Journal Article (Published)

Journal Article (Submitted)

Journal Article

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)
http://dx.doi.org/10.1080/00103624.2017.1298786

Journal Article (Published)
http://www.sbreb.org/Research/research.htm

Journal Article (Published)
http://www.sbreb.org/Research/research.htm

Other Intellectual Contributions

Magazine/Trade Publication (Published)

Abstract (Published)

**Research Report (Published)**

**Research Report (Published)**

**Abstract (Published)**


Cihacek, Larry J. (Professor)

**Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Submitted)**
Other Intellectual Contributions

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Report to a Regional Research Committee (Accepted)

Regional Research Committee Report to USDA-CSREES (Accepted)

Report to a Regional Research Committee (Accepted)

Daigh, Aaron L. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Non-Refereed Journal Articles
Journal Article (Published)

Other Intellectual Contributions
Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

Book Chapter (Published)

**Magazine/Trade Publication (Published)**

**Technical Report (Published)**

**Extension Publication (Published)**

**Abstract (Published)**

**Abstract (Published)**

**Abstract (Published)**

**Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**
Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)  

Other Intellectual Contributions

Research Report (Accepted)  

Research Report (Accepted)  

DeSutter, Thomas M. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)  

Journal Article (Published)  

Journal Article (Published)

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**
Journal Article (Published)

Journal Article (Accepted)

Journal Article (Submitted)

Journal Article (Submitted)

Journal Article (Submitted)

Journal Article (Submitted)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Book Chapter (Published)

Research Report (Published)
Extension Publication (Published)

Book Chapter (Published)

Research Report (Published)

Research Report (Accepted)

Book Chapter (Submitted)

Research Report (Submitted)

Foster, Stephen P. (Professor)

Refereed Journal Articles

Journal Article (Published)
Foster, S., Anderson, K., Casas, J. (2017). Sex pheromone in the moth *Heliothis virescens* is produced as a mixture of two pools: de novo and via precursor storage in glycerolipids. *Insect Biochemistry and Molecular Biology*, 87, 26-34. (Current Status: Published).

Non-Refereed Journal Articles

Journal Article

Franzen, David W. (Professor)

Refereed Journal Articles

Journal Article (Published)

**Journal Article (Submitted)**


**Non-Refereed Journal Articles**

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Accepted)**


**Journal Article (Submitted)**


**Conference Proceedings**

**Conference Proceeding (Published)**


**Conference Proceeding (Published)**


**Other Intellectual Contributions**

(Published)


Abstract (Published)

Extension Publication (Published)

Research Report (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Abstract (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Published)

Extension Publication (Submitted)

Extension Publication (Submitted)

Extension Publication (Submitted)

Extension Publication (Submitted)

Extension Publication (Submitted)

Extension Publication (Submitted)

Abstract

Gasch, Caley (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Accepted)

Other Intellectual Contributions

Research Report (Published)

Data set (Published)

Research Report (Published)

Goos, R J. (Professor)

Refereed Journal Articles

Journal Article

Other Intellectual Contributions

Extension Publication (Published)
Hargiss, Christina L. (Assistant Professor)

**Refereed Journal Articles**

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Accepted)*

*Journal Article (Submitted)*

**Other Intellectual Contributions**

*Research Report (Accepted)*

*Research Report (Accepted)*

*Research Report (Accepted)*

*Research Report (Accepted)*

*Research Report (Accepted)*

*Research Report (Accepted)*
Hargiss, C., Bonnell, K., Norland, J. (in press). *IRB report for the understanding perceptions of high school students on different environmental topics project*. Accepted: 2017. (Current Status: Accepted).
Research Report (Accepted)

Research Report (Accepted)

Research Report (Accepted)

Research Report (Accepted)

Research Report (Accepted)

Harmon, Jason P. (Associate Professor)

*Refereed Journal Articles*

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**

**Journal Article (Submitted)**

**Journal Article**

**Non-Refereed Journal Articles**

**Journal Article (Published)**

**Other Intellectual Contributions**

**Research Report (Published)**

**Harris, Marion (Professor)**

**Refereed Journal Articles**

**Journal Article (Accepted)**
Travers, S., Anderson, K., Harris, M. O. (in press). Breeding system and inbreeding depression in the rare orchid Platanthera praeclara in a fragmented grassland landscape. *Botany*. Accepted: November 2, 2017. (Current Status: Accepted).

**Non-Refereed Journal Articles**

**Journal Article (Submitted)**

**Other Intellectual Contributions**

**Book Chapter (Published)**

Hopkins, David G. (Associate Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Accepted)

Journal Article (Revising to Resubmit)

Journal Article (Submitted)

Other Intellectual Contributions

Research Report (Submitted)

Hovick, Torre J. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

**Non-Refereed Journal Articles**

*Journal Article (Published)*


Kobiela, Breanna (Research Scientist)

**Refereed Journal Articles**

*Journal Article (Published)*


*Journal Article (Published)*


*Journal Article (Published)*


*Journal Article (Published)*


Limb, Ryan (Assistant Professor)

**Refereed Journal Articles**

*Journal Article (Published)*


*Journal Article (Published)*


*Journal Article (Published)*


**Non-Refereed Journal Articles**

**Journal Article (Published)**

McGranahan, Devan A. (Assistant Professor)

**Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**

http://linkinghub.elsevier.com/retrieve/pii/S004896971731224X

**Journal Article (Published)**
McGranahan, D., Poling, B. N. Trait-Based Responses of Seven Annual Crops to Elevated CO2 and Water Limitation. *Renewable Agriculture & Food Systems*, in press. Accepted: November 28, 2017. (Current Status: Published).

**Journal Article (Published)**

**Other Intellectual Contributions**

**Book Chapter (Published)**

Norland, Jack E. (Associate Professor)

**Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**
Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Accepted)

Journal Article (Revising to Resubmit)

Journal Article (Not Accepted)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Published)

Other Intellectual Contributions

Abstract (Published)

Extension Publication (Published)
Abstract (Published)

Abstract (Published)

Research Report (Accepted)

Research Report (Accepted)

Research Report (Accepted)
Hargiss, C., Bonnell, K., Norland, J. (in press). *IRB report for the understanding perceptions of high school students on different environmental topics project*. Accepted: 2017. (Current Status: Accepted).

Research Report (Accepted)

Research Report (Accepted)

Rider, David A. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**


**Journal Article (Published)**

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Journal Article (Published)

Journal Article (Published)

Sedivec, Kevin K. (Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Extension Impact Report (Published)

Research Report (Published)

Magazine/Trade Publication (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)
Sedivec, K. (2017). Fall grazing options. NDSU Ag Communications. (Current Status: Published).

Press Release (Published)
Extension Educational Video (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Press Release (Published)

Extension Publication (Published)

Press Release (Published)

Press Release (Published)
Sedivec, K. (2017). Drought and forage production. NDSU Ag Communications. (Current Status: Published).

Press Release (Published)

Press Release (Published)

Magazine/Trade Publication (Published)

Extension Publication (Published)

Press Release (Published)
Meehan, M., Sedivec, K. (2017). Determine Grazing Readiness Prior to Pasture Turnout. NDSU Ag Communications. (Current Status: Published).
**Magazine/Trade Publication (Published)**

**Press Release (Published)**

**Press Release (Published)**

**Extension Publication (Published)**

**Extension Curriculum, Presentations**

**Extension Curriculum, Presentations**

**Voldseth, Deirdre A. (Associate Professor)**

**Refereed Journal Articles**

**Journal Article (Published)**

**Journal Article (Published)**

**Journal Article (Published)**

**Other Intellectual Contributions**

**Book (Accepted)**

**Research Report (Accepted)**
Wick, Abbey F. (Assistant Professor)

Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Submitted)

Non-Refereed Journal Articles

Journal Article (Published)

Journal Article (Published)

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*

*Journal Article (Published)*
Wick, A. (2017). Soil Health Minute: Precision Ag for Cover Crops and Additional Information. *AgWeek Soil Health Minute, Fargo Communications Production*. (Current Status: Published).

*Journal Article (Published)*

*Journal Article (Published)

Journal Article (Published)

Journal Article (Published)
Wick, A. (2017). Soil Health Minute: Bringing Agriculture to the City. AgWeek Soil Health Minute, Fargo Communications Production. (Current Status: Published).

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Journal Article (Published)

Other Intellectual Contributions

Other Intellectual Contributions

Other Intellectual Contributions

Other Intellectual Contributions

Other Intellectual Contributions

Magazine/Trade Publication (Published)

Research Report (Published)

Research Report (Published)

Research Report (Published)
Zeleznik, Joseph (Extension Specialist)

Conference Proceedings

Conference Proceeding (Published)

Other Intellectual Contributions

Extension Publication (Published)
https://www.ag.ndsu.edu/drappletree

Extension Publication (Accepted)
Vet Diagnostic Services

Mostrom, Michelle (Academic Staff)

Other Intellectual Contributions

Press Release (Published)

Press Release (Published)

Extension Curriculum, Handout

Webb, Brett (Extension Specialist)

Refereed Journal Articles

Journal Article (Published)

Non-Refereed Journal Articles

Journal Article (Published)
Presentations
North Dakota State University
January 1, 2017 - December 31, 2017

Agribusiness and Applied Econ

Hanson, Erik (Assistant Professor)


Hanson, Erik (Presenter), "Ag Lending: Key Concepts and Trends," NDSU. (June 14, 2017).


Jackson, Jeremy (Associate Professor)


Lim, Siew H. (Associate Professor)


Miljkovic, Dragan (Professor)


Miljkovic, Dragan, "Four presentations related to the "Impacts of Regional Trade Agreements on the EU and the US agriculture"," University of Zaragoza and Mediterranean Agronomical Institute, Zaragoza, Spain. (October 15, 2017 - October 21, 2017).

Ripplinger, David G. (Assistant Professor)


Shaik, Saleem (Associate Professor)


Sharma, Anupa (Assistant Professor)


Wachenheim, Cheryl J. (Professor)


Wachenheim, Cheryl, 2017 NACTA Conference, "Lessons learned from a year of teaching in China," Purdue University, West Lafayette, Indiana. (June 28, 2017 - July 1, 2017).

Wahl, Tom I. (Professor)


Wilson, William W. (Professor)

Wilson, William, FM Retired Medical Professionals. (October 12, 2016 - Present).

Marineau, Joshua (Presenter), Wilson, William (Presenter), Husby, Lisa (Moderator), CHS Annual Meeting, "Leadership development opportunities in agribusiness," CHS, Minneapolis, MN. (December 7, 2017).

Agricultural & Biosystems Eng

Lin, Zhulu (Assistant Professor)


Rahman, Shafiqur (Associate Professor)


Rahman, Shafiqur, "NDSU, ABEN Department, and Manure Management Options," Sangji University, South Korea. (March 17, 2017).

Rahman, Shafiqur, "NDSU, ABEN Department, and Livestock Air Quality Concerns," Chungnam National University (CNU), S. Korea. (March 16, 2017).


Simsek, Halis (Assistant Professor)


Steele, Dean D. (Associate Professor)

Bohn, Meyer (Author & Presenter), Hopkins, David (Author), Gasch, Caley (Author), Steele, Dean (Author), Tuscherer, Sheldon (Author), International Meetings of the ASA-CSSA-SSSA, "Predicting soil health and function from remote-sensed evapotranspiration and terrain attributes in the glaciated plains of eastern North Dakota,” ASA-CSSA-SSSA, Tampa, FL. (October 24, 2017).

Animal Science

Baranko, Loren L. (Lecturer)


Bauer, Marc L. (Associate Professor)


Berg, Eric P. (Professor)


Berg, Erika L. (Associate Professor)


Berg, Erika, Gooch, Mike (Author), Feldmann, Laura (Author), Knight, Bettye (Author), Verlaine, Jesse (Author), Equine Science Society Symposium, "Equine assisted psychotherapy treatment in a residential childcare facility," Equine Science Society, Minneapolis, MN. (June 1, 2017 - June 3, 2017).


Borowicz, Pawel (Research Assistant Professor)

Keomanivong (Doscher), Faithe, ASAS Midwestern Section, "The impact of nutrition and reproductive stage on maternal and fetal pancreatic exocrine and endocrine function in ruminants.," Des Moines University, Omaha, NE. (March 13, 2017 - March 15, 2017).

Caton, Joel S. (Professor)


Caton, J. S., Faculty Lectureship, "Developmental Programming;," Phi Kappa Phi, NDSU. (2017).


Christenson, Lisa A. (Assistant Professor)


Eck, Tate D. (Lecturer)

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Horsemanship Camp 2017," Belgian Quarter Horse Association, Herentals, Belgium. (July 11, 2017 - July 14, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), Roskilde, Denmark, "AQHA Horsecamp 2017," Danish Quarter Horse Association. (July 7, 2017 - July 9, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Norway Quarter Horse Association, Lommedalen, Norway. (June 30, 2017 - July 2, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Swedish Quarter Horse Association, Visby, Sweden. (June 26, 2017 - June 29, 2017).

Hammer, Carolyn (Associate Professor)

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Horsemanship Camp 2017," Belgian Quarter Horse Association, Herentals, Belgium. (July 11, 2017 - July 14, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), Roskilde, Denmark, "AQHA Horsecamp 2017," Danish Quarter Horse Association. (July 7, 2017 - July 9, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Norway Quarter Horse Association, Lommedalen, Norway. (June 30, 2017 - July 2, 2017).
Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Swedish Quarter Horse Association, Visby, Sweden. (June 26, 2017 - June 29, 2017).


Hanna, Lauren (Assistant Professor)


Hoffman, Travis (Assistant Professor)


Hoffman, Travis (Presenter), Premier Sheep Field Day, "How to make your market lambs better," Premier 1 Sheep Supplies, Washington, Iowa. (February 18, 2017).


Hoffman, Travis (Presenter), Local Foods College, "Sheep on a Small Farm - A Natural Fit," University of Minnesota, Webinar. (February 7, 2017).

Lardy, Gregory (Professor)


Lardy, Gregory (Presenter), Buchanan, David S (Author), Western Section, American Society of Animal Science Meetings, "Are We Still Fulfilling the Land-Grant Mission? Historical Perspective," American Society of Animal Science, Fargo. (June 20, 2017).

Meehan, Miranda A. (Assistant Professor)

Sedivec, Kevin (Author & Presenter), Meehan, Miranda (Author), North Dakota State University Extension Fall Conference, "Drought Management on Rangelands,," North Dakota State University Extension Service, Fargo, ND. (October 26, 2017).


Stokka, Gerald L. (Associate Professor)

Stokka, Gerald, Archer Daniels Midland, "Health Programs For Cattle in a Post-VFD Environment." (October 24, 2017).

Stokka, Gerald, Tri-State Veterinary Conference, "Cattle Health in a Post VFD World," Marina Inn, South Sioux City, NE. (October 6, 2017).

Stokka, Gerald, Robbi Pritchard, Erik Loe, AABP American Association of Bovine Practitioners, "Feedlot Nutrition & Management," AABP, Omaha, NE. (September 13, 2017).

Stokka, Gerald, NDVMA North Dakota Veterinary Medical Assn., "VFD Questions 8 months later," NDVMA, Bismarck, ND. (August 6, 2017).

Stokka, Gerald (Author & Presenter), 2017 Spring Meeting of the Academy of Veterinary Consultants, "Health Programs: Assurance or Insurance or Some of Each," Academy of Veterinary Consultants, Westin Hotel, Irving Texas. (March 31, 2017).


Stokka, Gerald (Author & Presenter), Hubbard feed dealer educational meeting, "Health Assurance: Health Cows, Healthy Calves," Hubbard Feeds, Rapid City, SD. (February 4, 2017).

Sun, XIN


Swanson, Kendall C. (Professor)


Swanson, Tara J. (Lecturer)

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Horsemanship Camp 2017," Belgian Quarter Horse Association, Herentals, Belgium. (July 11, 2017 - July 14, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), Roskilde, Denmark, "AQHA Horsecamp 2017," Danish Quarter Horse Association. (July 7, 2017 - July 9, 2017).

Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Norway Quarter Horse Association, Lommedalen, Norway. (June 30, 2017 - July 2, 2017).
Hammer, Carolyn (Presenter), Swanson, Tara (Presenter), Eck, Tate (Presenter), "AQHA Ride Camp 2017," Swedish Quarter Horse Association, Visby, Sweden. (June 26, 2017 - June 29, 2017).

Wagner, Sarah A. (Professor)

Wagner, Sarah (Author & Presenter), Novak, Blaine L (Author), Bubolz, Jacob (Author), Vegter, Ashley (Author), Young, Jennifer M (Author), Pig Welfare Symposium, "Behavioral and physiological methods to evaluate pain in piglets at processing," National Pork Board, Des Moines, IA. (November 7, 2017 - November 9, 2017).

Wagner, Sarah (Author & Presenter), Faculty Professional Development Conference, "Ten Teaching Tips From the First Ten Years," North Dakota State University, North Dakota State University. (August 16, 2017).

Microbiological Sciences

Bergholz, Peter W. (Assistant Professor)

Petersen, Morgan (Author & Presenter), Bergholz, Peter (Author), 77th Annual Meeting of the North Central Branch of the American Society for Microbiology, "Phylogroup D E. coli isolates from surface soil show greater biofilm production than fecal isolates," American Society for Microbiology, De Pere, WI. (October 6, 2017 - Present).

Bergholz, Peter (Author & Presenter), International Association for Food Protection 2017 Conference, "Spatiotemporal Analysis of Microbiological Contamination in New York State Produce Fields Following Extensive Flooding from Hurricane Irene, August 2011," International Association for Food Protection, Tampa, FL. (July 2017 - Present).

Petersen, Morgan L (Author & Presenter), Bergholz, Peter (Author), ASM Microbe 2017, "Diversity of biofilm formation traits in Escherichia coli isolates from soil," American Society for Microbiology, New Orleans, LA. (June 2017).

Hewitt, Austin J (Author & Presenter), Bergholz, Peter (Author), ASM Microbe 2017, "pH tolerance of environmental Escherichia coli under glucose-limited conditions," American Society for Microbiology, New Orleans, LA. (June 2017).

Bergholz, Teresa (Assistant Professor)

Bergholz, Teresa, Department of Science seminar series, "Using the microbes as our guide: toward effective control strategies for pathogens in foods," Valley City State University, Valley City, ND. (November 17, 2017).


Bergholz, Teresa, Annual NDSU Veterinary Diagnostic Laboratory Seminar, "Genetic subtyping of Listeria monocytogenes from ruminant listeriosis," ND Veterinary Diagnostic Laboratory, Fargo, ND. (May 18, 2017).

Dorsam, Glenn P. (Associate Professor)


McEvoy, John (Professor)

Abbas, Tauqeer (Author & Presenter), McEvoy, John (Author), Khan, Eakalak (Author), 8th International Conference on Geochemistry in the Tropics & Sub-Tropics, "Iron turning waste as affordable and effective filtration media for rural communities to treat pesticides in water," Shenzhen, China. (December 9, 2017 - December 12, 2017).

Kollar, Maxwell (Author & Presenter), Giddings, Catherine (Author), Hopkins, William (Author), McEvoy, John (Author), American Society for Microbiology North Central Branch 77th Annual Meeting, "A novel Trypanosoma sp. in the Hellbender (Cryptobranchus alleganiensis)," Green Bay, Wisconsin. (October 6, 2017 - October 7, 2017).

Welch, Baustin (Author & Presenter), Edwinson, Adam (Author), McEvoy, John (Author), American Society for Microbiology North Central Branch 77th Annual Meeting, "Cryptosporidium infection causes

Abbas, Tauqeer (Author & Presenter), McEvoy, John (Author), Khan, Eakalak (Author), 18th International Conference on Diffuse Pollution and Eutrophication, "Iron turning waste as sustainable point-of-use water filtration media for treatment of groundwater contaminated with pesticides," Los Angeles, USA. (August 12, 2017 - August 17, 2017).

Horčičková, Michaela (Author), Holubová, Nikola (Author), Květoňová, Dana (Author), Hlásková, Lenka (Author), McEvoy, John (Author), Rajský, Dušan (Author), Sak, Bohumil (Author), Kváč, Martin (Author), International Workshop on Opportunistic Protists (IWOP) 2017, "Cryptosporidium spp. in wild coypu (Myocastor coypus)," Cincinnati, Ohio. (August 10, 2017 - August 12, 2017).

Horčičková, Michaela (Author), Ježková, Jana (Author), Prediger, Jitka (Author), McEvoy, John (Author), Sak, Bohumil (Author), Kváč, Martin (Author), International Workshop on Opportunistic Protists (IWOP) 2017, "Cryptosporidium spp. in wild rodents of genus Rattus," Cincinnati, Ohio. (August 10, 2017 - August 12, 2017).


Predigera, Jitka (Author), Horčičková, Michaela (Author), Hofmannová, Lada (Author), Sak, Bohumil (Author), Ferrari, Nicola (Author), Mazzamuto, Maria Vittoria (Author), Romeo, Claudia (Author), Wauterse, Lucas (Author), McEvoy, John, Kváč, Martin (Author), International Workshop on Opportunistic Protists (IWOP) 2017, "Native and introduced squirrels in Italy host different Cryptosporidium spp.," Cincinnati, Ohio. (August 10, 2017 - August 12, 2017).

Pruess, Birgit (Professor)

Plant Pathology

Brueggeman, Robert S. (Associate Professor)

Friskop, Andrew, Gross, Patrick (Author), Chapara, Venkata (Author), Ransom, Joel (Author), Brueggeman, Robert (Author), Schatz, B (Author), Kalil, Audrey (Author), Fonseka, Dimitri (Author), Deplazes, C. (Author), Arens, A (Author), 2017 National Fusarium Head Blight Forum, "Integrated Management Strategies to Lower Fusarium Head Blight and Deoxynivalenol in Spring Barley over Multiple Years and Locations," East Lansing, MI/Lexington, KY. (December 3, 2017 - December 5, 2017).


Del Rio Mendoza, Luis E. (Professor)


Friskop, Andrew J. (Assistant Professor)

Friskop, Andrew, Bauske, Elizabeth (Author), Halvorson, Jessica (Author), Meyer, Scott (Author), Chapara, Venkata (Author), Schatz, B (Author), Arens, A (Author), 2017 National Fusarium Head Blight Forum, "Integrated management of Fusarium head blight in durum varieties," US Wheat and Barley Scab Initiative, East Lansing, MI/Lexington, KY. (December 3, 2017 - December 5, 2017).

Friskop, Andrew, Halvorson, Jessica (Author), Bauske, Elizabeth (Author), Meyer, Scott (Author), Chapara, Venkata (Author), Schatz, B. (Author), Arens, A (Author), 2017 National Fusarium Head Blight Forum, "Integrated management of Fusarium head blight in hard red spring wheat varieties," US Wheat and Barley Scab Initiative, East Lansing, MI/Lexington, KY. (December 3, 2017 - December 5, 2017).

Friskop, Andrew, Gross, Patrick (Author), Chapara, Venkata (Author), Ransom, Joel (Author), Brueggeman, Robert (Author), Schatz, B (Author), Kalil, Audrey (Author), Fonseka, Dimitri (Author), Deplazes, C.

Friskop, Andrew (Author), Haugen, Samuel (Author & Presenter), Knodel, Janet (Author), Beauzay, Patrick (Author), Meyer, Scott (Author), Hansen, B. (Author), Schuh, Casey (Author), Halley, Bryn (Author), APS North Central Division Meeting, "Effects of Barley Yellow Dwarf Virus on Hard Red Spring Wheat and Spring Durum," APS, Champaign, IL. (June 14, 2017 - June 16, 2017).

Friskop, Andrew, Bauske, Elizabith (Author & Presenter), Haugen, Samuel (Author & Presenter), Schuh, Casey (Author & Presenter), Knodel, Janet (Author), Beauzay, Patrick (Author), APS North Central Division Meeting, "Inoculation timing by hybrid field trials to assess the impact of Goss' wilt and leaf blight on northern corn yields.," APS, Champaign, IL. (June 14, 2017 - June 16, 2017).


Friskop, Andrew (Author), Halley, Bryn (Author & Presenter), Acevedo, Maricelis (Author), APS North Central Division Meeting, "Seedling resistance to stripe rust (Puccinia striiformis f.sp. tritici) in the North Dakota wheat nursery," Champaign, IL. (June 14, 2017 - June 16, 2017).

Gudmestad, Neil C. (Professor)


Khan, Mohamed F. R. (Professor)


Khan, Mohamed (Author & Presenter), ASSBT Biennial Meeting, "Managing Cercospora beticola resistant to fungicides," ASSBT, Greenville, SC. (February 27, 2017 - March 2, 2017).

Khan, Mohamed (Other), ASSBT Biennial Meeting, "Sugarbeet plant populations for optimum recoverable sucrose," Greenville, SC. (February 27, 2017 - March 2, 2017).

Hakk, Peter (Author & Presenter), Khan, Mohamed (Author), ASSBT Biennial Meeting, "Sugarbeet plant populations for optimum recoverable sucrose," ASSBT, Greenville, SC. (February 27, 2017 - March 2, 2017).

Khan, Mohamed (Other), ASSBT Biennial Meeting, "The making of an epidemic," Greenville, SC. (February 27, 2017 - March 2, 2017).

Knodel, Janet J. (Associate Professor)


Knodel, Janet (Presenter), "Dry Bean Grower Survey." (2017 - Present).


Knodel, Janet (Other), Beauzay, P (Other), "The Invasive Japanese Beetle in North Dakota." (2017 - Present).


Torrez, Veronica Calles (Author & Presenter), Knodel, Janet J. (Author), Boetel, Mark A. (Author), French, B. Wade (Author), Fuller, Billy W. (Author), Entomological Society of America annual meeting, "Transgenic Bt Corn, Soil Insecticide, and Insecticidal Seed Treatment Effects on Northern Corn Rootworm (Coleoptera: Chrysomelidae) Beetle Emergence in North Dakota," Entomological Society of America, Denver, CO. (November 5, 2017 - November 8, 2017).

Friskop, Andrew (Author), Haugen, Samuel (Author & Presenter), Knodel, Janet (Author), Beauzay, Patrick (Author), Meyer, Scott (Author), Hansen, B. (Author), Schuh, Casey (Author), Halley, Bryn (Author), APS North Central Division Meeting, "Effects of Barley Yellow Dwarf Virus on Hard Red Spring Wheat and Spring Durum," APS, Champaign, IL. (June 14, 2017 - June 16, 2017).
Friskop, Andrew, Bauske, Elizabeth (Author & Presenter), Haugen, Samuel (Author & Presenter), Schuh, Casey (Author & Presenter), Knodel, Janet (Author), Beauzay, Patrick (Author), APS North Central Division Meeting, "Inoculation timing by hybrid field trials to assess the impact of Goss’ wilt and leaf blight on northern corn yields.,” APS, Champaign, IL. (June 14, 2017 - June 16, 2017).

Torrez, Veronica Calles (Author & Presenter), Knodel, Janet J. (Author), Boetel, Mark A. (Author), Ransom, Joel (Author), Asa Fitch Entomological Symposium, "Effects of Transgenic Bt Corn, Soil insecticide, and Insecticidal Seed Treatment on Timing of Diabrotica barberi Beetle Emergence in North Dakota," NDSU Entomology Club, Fargo, ND. (May 2, 2017).


Markell, Samuel (Associate Professor)


Pasche, Julie, Markell, Samuel, North Dakota Department of Agriculture Crop Protection Product Harmonization and Registration Board Meeting, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions." (April 12, 2017 - Present).


Markell, Samuel, Resistance management and awareness campaign, "Developing the 2nd SCN Coalition," Des Moines, IA. (February 8, 2017 - Present).

Nelson, Berlin (Presenter), Markell, Samuel (Presenter), "Threat of soybean cyst nematode to dry bean production." (2017 - Present).


Meinhardt, Steven (Associate Professor)

Meinhardt, Steven, Malalgoda, Maneka (Author & Presenter), Ohm, J B (Author), Meinhardt, S W (Author), Simsek, S (Author), North Dakota Academy of Science Annual Meeting, "Association between protein composition and quality parameters in historical and modern spring wheat.," Fargo, ND, USA. (2017).

Nelson, Berlin D. (Professor)

Nelson, Berlin (Presenter), Markell, Samuel (Presenter), "Threat of soybean cyst nematode to dry bean production." (2017 - Present).

Pasche, Julie S. (Assistant Professor)

Pasche, Julie, Western Pulse Growers Association, "Pea Disease Diagnostic Series," Pullman, WA. (December 13, 2017 - Present).


Pasche, Julie, Carrington Research and Extension Center, "Growers Field Day," Carrington, North Dakota. (July 18, 2017 - Present).

Pasche, Julie, Markell, Samuel, North Dakota Department of Agriculture Crop Protection Product Harmonization and Registration Board Meeting, "Efficacy of Foliar Applications for the Control of Common Bacterial Blight Under Field Conditions." (April 12, 2017 - Present).


Pasche, Julie, Northern Pulse Growers Association, "Importance of Cereal Crop Residue in Field Pea Root Rot Development." (February 14, 2017 - Present).

Pasche, Julie, "Seed Treatment and In-Furrow Fungicides for the Control of Fusarium Root Rot in Field Peas," Northern Pulse Growers Association. (February 14, 2017 - Present).


Secor, Gary A. (Professor)


Secor, Gary, University of Wisconsin Potato and Vegetable Growers Conference, "Seed handling and treatments for decay management," Stevens Point, Wisconsin. (February 8, 2017).


Yan, Guiping (Assistant Professor)


Yan, Guiping, Northern Plains Potato Growers Association Potato Research Reporting Conference, "Developing a qPCR assay to determine population densities of root-lesion nematodes (Pratylenchus penetrans) in soils to be planted to potato," Grand Forks, ND. (February 21, 2017).


Zhong, Shaobin (Associate Professor)

Zhong, Shaobin, Department of Plant Pathology, "Agriculture in North Dakota," Warsaw University of Life Sciences, Warsaw, Poland. (May 21, 2017 - Present).


Berti, Marisol T. (Professor)

Berti, Marisol (Author & Presenter), Soil Health Workshop (Organic Systems), "Use of cover crops to benefit soil health," NDSU, Carrington, ND. (July 18, 2017).

Berti, Marisol, Annual meeting of the NCCC-31 committee, "Forage, biomass, and cover crops production research in North Dakota," NCCC31, Lincoln, Nebraska. (June 19, 2017 - June 20, 2017).


Berti, Marisol (Author), Samarappuli, Dulan (Author), European Geosciences Union Conference, "Nutrient cycling potential of Camelina sativa as a cover crop in the northern Great Plains, USA," Vienna, Austria. (April 22, 2017 - April 28, 2017).


Berti, Marisol (Author & Presenter), Midwest Cover Crop Council Annual Conference, "Interseeding cover crops into standing, corn, soybean, and sunflowers," MCCC, Grand Rapids, MI. (March 12, 2017 - March 14, 2017).


Berti, Marisol (Author), Annual Symposium Seed sales representatives, "What, when, and how to plant cover crops in the northern Great Plains," Agassiz Seeds & Supplies, Mapleton, ND. (February 9, 2017).


Christoffers, Michael J. (Associate Professor)

Howatt, Kirk (Author & Presenter), Christoffers, Michael (Author), Peters, Thomas (Author), Adams, Jason (Author), Western Society of Weed Science Annual Meeting, "Does Pulse-Sprayer Technology Affect Herbicide Efficacy?," WSWS, Coeur d'Alene, ID. (March 16, 2017).

Gramig, Greta G. (Associate Professor)


Hall, Clifford (Professor)

Hatterman-Valenti, Harlene (Professor)

Ghosh, Upasana (Author & Presenter), Chatterjee, Amitava (Author), Hatterman-Valenti, Harlene (Author), Thompson, Asunta (Author), NPPGA Research Reporting Conference, "Do Enhanced Fertilizers minimize nitrogen losses with a late spring planting?," Northern Plains Potato Growers Association, Grand Forks, ND. (February 21, 2017).


Howatt, Kirk (Associate Professor)

Butts, Thomas (Author & Presenter), Samples, Chase (Author), Franca, Lucas (Author), Dodds, Darrin (Author), Reynolds, Dan (Author), Adams, Jason (Author), Zollinger, Richard (Author), Howatt, Kirk (Author), Kruger, Greg (Author), North Central Weed Science Society Annual Meeting, "Optimization of dicamba and glufosinate application using pulse-width modulation," NCWSS, St. Louis, MO. (December 5, 2017).


Howatt, Kirk (Presenter), Field Day, "Weed control programs in soybean," DuPont, Jamestown, ND. (July 17, 2017).

Howatt, Kirk (Presenter), Field Day, "Weed control programs in soybean," DuPont, Steele, ND. (July 17, 2017).

Howatt, Kirk (Panelist), Peters, Thomas (Panelist), Robinson, Andrew (Panelist), Centrol Roundtables, "Weed Control strategies," Centrol Crop Consulting, Moorhead, MN. (March 28, 2017).

Howatt, Kirk (Author & Presenter), Christoffers, Michael (Author), Peters, Thomas (Author), Adams, Jason (Author), Western Society of Weed Science Annual Meeting, "Does Pulse-Sprayer Technology Affect Herbicide Efficacy?," WSWS, Coeur d'Alene, ID. (March 16, 2017).

Ostlie, Michael (Author & Presenter), Howatt, Kirk (Author), Dalley, Caleb (Author), Western Society of Weed Science Annual Meeting, "Cover Crop Safety Following Wheat Herbicide Application," WSWS, Coeur d'Alene, ID. (March 15, 2017).


Daniel, Jim (Author & Presenter), Westra, Philip (Author), Howatt, Kirk (Author), Parrish, Scott (Author), Jones, Trevor (Author), Western Society of Weed Science Annual Meeting, "An update on the evaluation and development of physical drift reduction adjuvants, vapor drift reduction adjuvants and physical and
vapor reduction adjuvants with several dicamba and 2,4-D formulations,” WSWS, Coeur d'Alene, ID. (March 14, 2017).


Li, Deying (Associate Professor)


McGinnis, Esther E. (Assistant Professor)


Osorno, Juan (Associate Professor)


Peters, Thomas J. (Assistant Professor)

Howatt, Kirk (Panelist), Peters, Thomas (Panelist), Robinson, Andrew (Panelist), Centrol Roundtables, "Weed Control strategies," Centrol Crop Consulting, Moorhead, MN. (March 28, 2017).
Howatt, Kirk (Author & Presenter), Christoffers, Michael (Author), Peters, Thomas (Author), Adams, Jason (Author), Western Society of Weed Science Annual Meeting, "Does Pulse-Sprayer Technology Affect Herbicide Efficacy?", WSWS, Coeur d'Alene, ID. (March 16, 2017).

Ransom, Joel K. (Professor)

Friskop, Andrew, Gross, Patrick (Author), Chapara, Venkata (Author), Ransom, Joel (Author), Brueggeman, Robert (Author), Schatz, B (Author), Kalil, Audrey (Author), Fonseka, Dimitri (Author), Deplazes, C. (Author), Arens, A (Author), 2017 National Fusarium Head Blight Forum, "Integrated Management Strategies to Lower Fusarium Head Blight and Deoxynivalenol in Spring Barley over Multiple Years and Locations," East Lansing, MI/Lexington, KY. (December 3, 2017 - December 5, 2017).

Torrez, Veronica Calles (Author & Presenter), Knodel, Janet J. (Author), Boetel, Mark A. (Author), Ransom, Joel (Author), Asa Fitch Entomological Symposium, "Effects of Transgenic Bt Corn, Soil insecticide, and Insecticidal Seed Treatment on Timing of Diabrotica barberi Beetle Emergence in North Dakota," NDSU Entomology Club, Fargo, ND. (May 2, 2017).

Robinson, Andrew P. (Assistant Professor)


Howatt, Kirk (Panelist), Peters, Thomas (Panelist), Robinson, Andrew (Panelist), Centrol Roundtables, "Weed Control strategies," Centrol Crop Consulting, Moorhead, MN. (March 28, 2017).

Rahman, Md Mukhlesur (Assistant Professor)


Rahman, Md Mukhlesur, 7th National Association of Plant Breeders and the 10th Plant Breeding Coordinating Committee meeting, University of California, Davis, CA, USA. (August 7, 2017 - August 10, 2017).


Rahman, Md Mukhlesur (Presenter), "AES Research/Extension Centers and Department of Plant Sciences," NDSU, Fargo, USA. (March 2, 2017).


Sarkar, Dipayan (PostDoc)

Ramakrishna, Ramnarain (Author & Presenter), Sarkar, Dipayan (Author), Shetty, Kalidas (Author), Association for the Advancement of Industrial Crops International Conference, "'Evaluation of phenolic linked anti-hyperglycemic potential of barley (Hordeum vulgare l.) cultivars targeting for the management of early stages type 2 diabetes using in vitro models'," Association for the Advancement of Industrial Crops, Rochester, New York. (September 2016 - Present).


Shetty, Kalidas (Professor)

Shetty, Kalidas, IAFP's 5th Latin American Symposium on Food Safety & 7th Food Science, Biotechnology and Safety, "'Food Diversity and Microbiome Enhancement to Traditional Food Systems as Solutions to Global Food Security and Public Health Challenges'," International Association of Food Safety and Mexican Food Science Association, Cancun, Mexico. (November 2016 - Present).


Ramakrishna, Ramnarain (Author & Presenter), Sarkar, Dipayan (Author), Shetty, Kalidas, Agricultural Bioscience International Conference, "'Enhancing phenolic antioxidant profile in barley sprouts by using bioprocessed elicitors for improved bioactive functionality'," Agricultural Bioscience International Conference, Fargo, North Dakota. (September 2016 - Present).


Ramakrishna, Ramnarain (Author & Presenter), Sarkar, Dipayan (Author), Shetty, Kalidas (Author), Association for the Advancement of Industrial Crops International Conference, "'Evaluation of phenolic linked anti-hyperglycemic potential of barley (Hordeum vulgare l.) cultivars targeting for the management of early stages type 2 diabetes using in vitro models'," Association for the Advancement of Industrial Crops, Rochester, New York. (September 2016 - Present).

Christopher, Ashish (Author & Presenter), Sarkar, Dipayan (Author), Shetty, Kalidas (Author), Association for the Advancement of Industrial Crops International Conference, "'Stress-induced enhancement of phenolic antioxidants in grapes (Vitis vinifera L.), targeting bioactive compounds for the management of early stages type 2 diabetes'," Association for the Advancement of Industrial Crops, Rochester, New York. (September 2016 - Present).

Shetty, Kalidas, Agricultural Bioscience International Conference, "'Food Metabolic Innovations to Advance Global Food Security and Associated Chronic Disease Challenges'," Agricultural Bioscience International Conference, Fargo, North Dakota. (September 2016 - Present).
Christopher, Ashish (Author & Presenter), 2nd NDSU Annual Conference on Food for Health, "Evaluation of Phenolic Antioxidant-linked Functionalities of Emmer Wheat Targeting Dietary Management of Early Stages Type 2 Diabetes", GIFSIA- North Dakota State University, Fargo, North Dakota. (July 2016 - Present).

Ramakrishna, Ramnarain (Author & Presenter), Sarkar, Dipayan (Author), Shetty, Kalidas (Author), 2nd NDSU Annual Conference on Food for Health, "Evaluation of Phenolic Linked Anti-hyperglycemic Potential of Barley Cultivars for Managing Early Stages Type 2 Diabetes", GIFSIA- North Dakota State University, Fargo, North Dakota. (July 2016 - Present).

Orwat, Jordan (Author & Presenter), 2nd NDSU Annual Conference on Food for Health, "Elicitation of Phenolic Antioxidant-Linked Functionality in Dark Germinated Black Bean Sprouts (Phaseolus vulgaris L.) and Screening For Management of Early-Stage Type 2 Diabetes Using In Vitro Models," GIFSIA- North Dakota State University, Fargo, North Dakota. (July 2016 - Present).


Shetty, Kalidas, American Council of Medicinally Active Plants, 7th Annual Conference, "Metabolic Innovations and Fermentation Biology for Medicinally Active Functional Foods", American Council of Medicinally Active Plants-ACMAP, Lima, Peru. (June 2016 - Present).

Sarkar, Dipayan (Author), Christopher, Ashish (Author), Orwat, Jordan (Author), Shetty, Kalidas (Author & Presenter), Food For Health International Conference, "Abiotic Stress-Induced Bioactive Enrichment in Food Crops for Human Health Benefits", Kagoshima University, Kagoshima, Japan. (March 2016 - Present).


Shetty, Kalidas, 19th ADNAT-Association for the Promotion of DNA Fingerprinting and DNA Technologies Convention, "Fermented Food Microbiome for Chronic Disease Management", 19th ADNAT-Association for the Promotion of DNA Fingerprinting and DNA Technologies-ADNAT, Bangalore, India. (February 2016 - Present).

Shetty, Kalidas, Symposium on Recent Advances in Biomedical Sciences, "Metabolic Innovations for Global Food Security & Public Health Challenges", Symbiosis University, Pune, India. (January 2016 - Present).

Shetty, Kalidas, International Conference on “Ethnic Fermented Foods and Beverages: Microbiology and Health Benefits”, Sikkim University, Gangtok, India. (November 2015 - Present).

Shetty, Kalidas, "Systems-Based Metabolic Innovations for Global Food Security & Public Health Challenges", Texas A & M University, College Station, Texas. (October 2015 - Present).

Shetty, Kalidas, "Systems-Based Metabolic Innovations for Global Food Security & Public Health Challenges", Symbiosis University, Program in Biomedical Sciences and Nutrition, Pune, India. (October 2015 - Present).

Shetty, Kalidas, Thailand Food Ingredient Conference, ""Metabolic Innovations of Phytochemicals for Health"", Food Science Society of Thailand, Bangkok, Thailand. (September 2015 - Present).


Shetty, Kalidas, ""Systems-Based Understanding of Global Food Security Challenges with Integration of Urban Living & Green Technologies"", Beary Institute of Technology, Mangalore, India. (February 2015 - Present).


Shetty, Kalidas, 24th Brazilian Food Science Congress and International Conference on Tropical Fruits, ""Metabolic Biology & Biotechnology of Tropical Fruit Phytochemicals for Functional Foods & Human Health"", Brazilian Food Science Association, Aracaju-Sergipe, Brazil. (September 2014 - Present).


Shetty, Kalidas, American Council of Medicinally Active Plants (ACMAP) 5th Annual Conference, ""Crops for Health as Solution to Chronic Diseases: Strategic Vision for Agriculture and Global Food Security"", American Council of Medicinally Active Plants (ACMAP), Fargo, North Dakota. (June 2014 - Present).

Shetty, Kalidas, Chile Tree Nuts Association Conference, ""Food ecology and Food diversity as rationale to integrate bioactive and functional foods for advancing better human health and global environment"", Chile Tree Nuts Association, Vina Del Mar, Chile. (June 2014 - Present).

Shetty, Kalidas, ""Metabolic Biology of Bioactive Components of Traditional & Future Foods"", Zhejiang University, Hangzhou, China; Fuli Institute of Food Science and Nutrition, Hangzhou, China. (May 2014 - Present).

Shetty, Kalidas, ""Systems-Based Innovations as Solutions to Global Food Security & Health Challenges"", Uttarkhand University of Horticulture and Forestry, Ranchuri, India. (May 2014 - Present).
Shetty, Kalidas, ""Systems-Based Plant & Food Metabolic Innovations to address Global Food Security & Health Challenges"", University of Mysore, India: Center for Studies in Microbiology, Mysore, India. (March 2014 - Present).

Shetty, Kalidas, ""Systems-Based Plant & Food Metabolic Innovations to Address Global Food Security & Health Challenges"," University of Pondicherry, Pondicherry, India. (January 2014 - Present).

Shetty, Kalidas, Phuket Sustainability Conference, ""Systems-Based Innovations to Address Food Security, Health & Ecological Challenges", Prince of Songkla University, Phuket, Thailand. (January 2014 - Present).

Shetty, Kalidas, 7th INTERNATIONAL FOOD CONVENTION (IFCON) "NSuRE HEALTHY FOODS", "Food Security Solutions to Address Global Malnutrition and Chronic Disease Challenges Using Systems-Based Plant Metabolic Innovations", International Food Convention-India, Mysore, India. (December 2013 - Present).

Shetty, Kalidas, American Council of Medicinally Active Plants (ACMAP), 4th Annual Conference, ""Strategies for Improving Medicinal Plants Using Metabolic Biology", American Council of Medicinally Active Plants-ACMAP, Amherst, Massachusetts. (June 2013 - Present).


Thompson, Asunta L. (Associate Professor)

Thompson, Asunta (Author & Presenter), "Processing Trial," RDO/LambWeston, Park Rapids, MN. (August 28, 2017).

Thompson, Asunta (Author & Presenter), "Advanced dual-purpose russets and chip processing selections/Fresh market and chip processing selections," Northern Plains Potato Growers Association, Larimore, Inkster and Hoople, ND. (August 24, 2017).


Thompson, Asunta L. (Author & Presenter), Minnesota Area II Potato Shortcourse, "NSU Potato Breeding and Cultivar Development for the Northern Plains," Minnesota Area II Potato Research and Promotion Council, Duelm, MN. (March 1, 2017).


Ghosh, Upasana (Author & Presenter), Chatterjee, Amitava (Author), Hatterman-Valenti, Harlene (Author), Thompson, Asunta (Author), NPPGA Research Reporting Conference, "Do Enhanced Fertilizers minimize nitrogen losses with a late spring planting?", Northern Plains Potato Growers Association, Grand Forks, ND. (February 21, 2017).

Thompson, Asunta L. (Author & Presenter), NPPGA Research Reporting Conference, "Potato Breeding and Cultivar Development for the Northern Plains," Northern Plains Potato Growers Association, Alerus Center; Grand Forks, ND. (February 21, 2017).

Vegi, Anuradha (Assistant Professor of Practice)

Zollinger, Richard K. (Professor)

Butts, Thomas (Author & Presenter), Samples, Chase (Author), Franca, Lucas (Author), Dodds, Darrin (Author), Reynolds, Dan (Author), Adams, Jason (Author), Zollinger, Richard (Author), Howatt, Kirk (Author), Kruger, Greg (Author), North Central Weed Science Society Annual Meeting, "Optimization of dicamba and glufosinate application using pulse-width modulation," NCWSS, St. Louis, MO. (December 5, 2017).

Zuk, Alan J. (Associate Professor)

Zuk, Alan, Dr. Hatterman-Valenti’s Herbaceous Ornamentals class, "Ornamental grasses," Fargo, ND. (October 7, 2009 - Present).
School of Natural Resource Science

Anderson, Karin (Research Scientist)


Boetel Ph.D., Mark A. (Professor)

Wenninger, Erik (Author & Presenter), Emmert, Susan (Author), Tindall, Kelly (Author), Ding, Hongjian (Author), Boetel, Mark A. (Author), Rajabaskar, D. (Author), Eigenbrode, Sanford, Entomological Society of America - Pacific Branch meeting, "A Putative Aggregation Pheromone in the Sugar Beet Root Maggot Fly (Diptera: Ulidiidae)," Pacific Branch of the Entomological Society of America, Portland, OR. (November 5, 2017 - November 8, 2017).

Torrez, Veronica Calles (Author & Presenter), Knodel, Janet J. (Author), Boetel, Mark A. (Author), French, B. Wade (Author), Fuller, Billy W. (Author), Entomological Society of America annual meeting, "Transgenic Bt Corn, Soil Insecticide, and Insecticidal Seed Treatment Effects on Northern Corn Rootworm (Coleoptera: Chrysomelidae) Beetle Emergence in North Dakota," Entomological Society of America, Denver, CO. (November 5, 2017 - November 8, 2017).

Boetel, Mark A. (Author & Presenter), Campus Visit by Betaseed and KWS Scientists from Einbeck, Germany and Minnesota, "Sugarbeet Insect Research in the USA," North Dakota State University, Fargo, ND. (August 8, 2017).


Torrez, Veronica Calles (Author & Presenter), Knodel, Janet J. (Author), Boetel, Mark A. (Author), Ransom, Joel (Author), Asa Fitch Entomological Symposium, "Effects of Transgenic Bt Corn, Soil insecticide, and Insecticidal Seed Treatment on Timing of Diabrotica barberi Beetle Emergence in North Dakota," NDSU Entomology Club, Fargo, ND. (May 2, 2017).

Boetel, Mark (Author & Presenter), Schroeder, Allen (Author), Rikhus, Jacob (Author), Chatterjee, Amitava (Author), Cattanach, Norman (Author), American Society of Beet Sugar Technologists Biennial Meeting, "Seed Lubricant Impacts on Plant Stands and Yield: Implications for Insecticidal Seed Treatment Use," American Society of Beet Sugar Technologists, Greenville, SC. (February 27, 2017 - March 2, 2017).


Rikhus, Jacob J. (Author & Presenter), Boetel, Mark A. (Author), Schroeder, Allen J. (Author), 47th Annual Sugarbeet Research Reporting Session, "Experimental and Registered Insecticides for Postemergence Root Maggot Control," North Dakota State University, Fargo, ND. (January 10, 2017).


Brueggeman, Leah (Lecturer)

Brueggeman, Leah M (Leader), Magnuson, Eva (Presenter), Jay, Goos (Author), Ag Ed Day @ NDSU, ""Soil Suitability"," NDSU, Fargo, ND. (April 21, 2017).


Casey, Francis (Professor)


Chatterjee, Amitava (Assistant Professor)


Acharya, Umesh, Chatterjee, Amitava, Daigh, Aaron, Annual Meeting, "Can We Increase Yield with Adopting Tile Drainage in Fargo-Clay Soil?," ASA-CSSA-SSSA, Tampa, FL. (October 22, 2017 - October 25, 2017).


Boetel, Mark (Author & Presenter), Schroeder, Allen (Author), Rikhus, Jacob (Author), Chatterjee, Amitava (Author), Cattanach, Norman (Author), American Society of Beet Sugar Technologists Biennial Meeting, "Seed Lubricant Impacts on Plant Stands and Yield: Implications for Insecticidal Seed Treatment Use," American Society of Beet Sugar Technologists, Greenville, SC. (February 27, 2017 - March 2, 2017).

Ghosh, Upasana (Author & Presenter), Chatterjee, Amitava (Author), Hatterman-Valenti, Harlene (Author), Thompson, Asunta (Author), NPPGA Research Reporting Conference, "Do Enhanced Fertilizers minimize nitrogen losses with a late spring planting?", Northern Plains Potato Growers Association, Grand Forks, ND. (February 21, 2017).

Cihacek, Larry J. (Professor)


De, Mriganka (Author & Presenter), Lawrinenko, Michael (Author), Baldwin-Kordick, Rebecca (Author), Hall, Steven (Author), Cihacek, Larry J (Author), McDaniel, Marshall D. (Author), 2017 ASA-CSSA-SSSA International Meetings, "Impacts of Conservation Reserve Program on Soil Health," ASA-CSSA-SSSA, Tampa, FL. (October 22, 2017 - October 25, 2017).


Daigh, Aaron L. (Assistant Professor)


DeJong-Hughes, J (Author & Presenter), Daigh, Aaron (Author), Soil and Water Conservation Society, "Effect of crop residue management on grain yield and soil properties in Minnesota," Madison, WI. (2017).


Daigh, Aaron (Author & Presenter), Ghosh, U (Author), DeSutter, T (Author), American Society of Agronomy, "Ferric hexacyanoferrate effects on soil microbial community and soybean and wheat growth," Tampa, FL. (2017).

Daigh, Aaron (Author & Presenter), Derby, N (Author), Davis, D (Author), Soil Science Society of America, "Heat and water flows through sand and hydrophobic, raw Leonardite columns," Tampa, FL. (2017).

Spiess, J (Author & Presenter), Poling, B (Author), Hovic, T (Author), McGranahan, D (Author), Whippo, C (Author), Daigh, Aaron (Author), Society for Range Management, "Passerine and insect communities along dust deposition gradients in Bakken oil patch," St. George, UT. (2017).


Leitner, Z (Author & Presenter), Daigh, Aaron (Author), Gasch, C (Author), DeJong-Hughes, J (Author), Wick, A (Author), Soil Science Society of America, "Temporal dynamics of microbial communities during natural wetting and drying cycles of select reduced tillage systems," Tampa, FL. (2017).

Daigh, Aaron, American Crystal Sugar Company Growers Meeting, "Tile drainage functions and effects of compaction during wet harvest conditions." (March 24, 2017).
Limb, Ryan (Author), Sedivec, Kevin (Author & Presenter), Daigh, Aaron (Author), DeSutter, Thomas (Author), North Dakota Industrial Commission, "Reclamation options for legacy brine waste pits in north-central North Dakota: effects of remediation techniques on grass species," North Dakota Industrial Commission, Bismarck, ND. (March 15, 2017).

Daigh, Aaron (Author & Presenter), Klaustermeier, Aaron (Author), Limb, Ryan (Author), Sedivec, Kevin (Author), DeSutter, Thomas (Author), North Dakota Reclamation Conference, "Approaching brine spills from the surface: a research update on using crystallization inhibitors," Dickinson, ND. (February 21, 2017).

Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), North Dakota Reclamation Conference, "Effects of remediation techniques on selected grass species seeding’s associated with legacy brine waste pits in north-central North Dakota," Dickinson, ND. (February 2017).


Daigh, Aaron, "Reduced Tillage Project Working Group," University of Minnesota. (February 13, 2017).

Daigh, Aaron, Manitoba Pulse and Soybean Growers "Getting it Right" annual production meeting, "Tillage and residue management effects on soybean establishment." (February 2, 2017).


DeKeyser, Edward (Professor)


Fritz, Savannah (Author), Hargiss, Christina (Author & Presenter), DeKeyser, Edward, Annual Meeting of the North Central Chapter of the Society of Wetland Scientists, "Change over time at reference condition wetlands in North Dakota," Society of Wetland Scientists North Central Chapter, Fargo, ND. (October 12, 2017 - October 14, 2017).
Kristine, Altrichter M (Author & Presenter), Hargiss, Christina, Kobiela, Breanna, DeKeyser, Shawn (Other), Annual Meeting of the North Central Chapter of the Society of Wetland Scientists, "Species composition patterns and soil properties of a fen in Eddy County, ND," Society of Wetland Scientists North Central Chapter, Fargo, ND. (October 12, 2017 - October 14, 2017).


DeKeyser, Shawn (Author & Presenter), Annual Meeting of the North Central Chapter of the Society of Wetland Scientists, "Introduction to Wetland Identification and Delineation –[Field Indicators of Hydric Soils in the United States – Wetland Soils]," Society of Wetland Scientists North Central Chapter, Fargo, ND. (October 12, 2017).


Fritz, Savannah, Hargiss, Christina, DeKeyser, Edward, Society of Wetland Scientists, "Change over time at reference condition wetlands in the Prairie Pothole Region," San Juan, Puerto Rico. (June 2017).

Ellingson, Nicole (Author), Strethlow, Travis, Kobiela, Breanna, DeKeyser, Shawn (Author & Presenter), Annual Meeting of the Society of Wetland Scientists, "From weeds to wetland: A comparison of wetland restoration techniques in southeastern North Dakota," Society of Wetland Scientists, San Juan, PR. (June 2017).

Preister, Lisa (Author & Presenter), DeKeyser, Edward (Other), Dixon, Cami, Annual ND Chapter of The Wildlife Society Meeting, "Identifying smooth brome (Bromus inermis) elongation in the northern tallgrass prairie using growing degree days," ND Wildlife Society, Mandan, ND. (February 2017).


DeSutter, Thomas M. (Associate Professor)

Kolka, Randy (Author & Presenter), Boche, Mikayla (Author), DeSutter, Thomas, Sustainable Forests Education Cooperative's Annual Forestry and Wildlife Research Review, "Factors affecting soil mercury, carbon and nitrogen distributions in seasonal pond basins within a northern hardwood forest," Cloquet, MN. (January 2017 - December 2017).

Link, Austin (Author & Presenter), DeSutter, Thomas (Author), Staricka, James A (Author), Sedivec, Kevin (Author), Augustin, Christopher (Author), Prasad Pradhan, Gautam (Author), Bergman, Jerry W (Author), International meetings of the ASA-CSSA-SSSA, "Effects of cropping sequence, ripping, and manure on pipeline reclamation in western North Dakota," ASA-CSSA-SSSA, Tampa, FL. (October 2017).

Daigh, Aaron, DeSutter, Thomas, Annual Meeting of the ASA-CSSA-SSSA, "Ferric hexacyanoferrate effects on soil health and soybean and wheat growth," ASA-CSSA-SSSA, Tampa, FL. (October 2017).


DeSutter, Thomas, Dryland Field Day, "Overview of oil and gas pipeline disturbed soils," Williston Research and Extension Center, Williston, ND. (July 2017).

Limb, Ryan (Author), Sedivec, Kevin (Author & Presenter), Daigh, Aaron (Author), DeSutter, Thomas (Author), North Dakota Industrial Commission, "Reclamation options for legacy brine waste pits in north-central North Dakota: effects of remediation techniques on grass species," North Dakota Industrial Commission, Bismarck, ND. (March 15, 2017).

Daigh, Aaron (Author & Presenter), Klaustermeier, Aaron (Author), Limb, Ryan (Author), Sedivec, Kevin (Author), DeSutter, Thomas (Author), North Dakota Reclamation Conference, "Approaching brine spills from the surface: a research update on using crystallization inhibitors," Dickinson, ND. (February 2017).


Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), North Dakota Reclamation Conference, "Effects of remediation techniques on selected grass species seeding’s associated with legacy brine waste pits in north-central North Dakota," Dickinson, ND. (February 2017).


Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), Norland, Jack (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), Comeau, Paula (Author), Society for Range Management Annual Meeting, "Evaluation of reclamation and remediation techniques associated with oil and gas production in the Northern Plains," Society for Range Management, St. George, UT. (January 29, 2017 - February 1, 2017).


Foster, Stephen P. (Professor)


Franzen, David W. (Professor)


Franzen, David W. (Author & Presenter), Sharma, Lakesh (Author), Bu, Honggang (Author), Schultz, Eric C. (Author), Denton, Anne (Author), 11th European Precision Agriculture Conference, "Use of Active-Optical Sensors to Direct In-Season N Application in North Dakota in Sugar Beet, Corn, Spring Wheat and Sunflower," North Dakota State University, Edinburgh, Scotland, UK. (July 20, 2017).

Franzen, David W (Author & Presenter), Goulding, Keith (Author), Mallarino, Antonio P. (Author), Bell, Michael (Author), Frontiers of Potassium, "How Closely is Potassium Mass Balance Related to Soil Test Changes?," International Plant Nutrient Institute, Rome, Italy. (January 22, 2017 - January 26, 2017).

Gasch, Caley (Assistant Professor)

Gasch, Caley, NDSU SNRS Graduate Student Symposium, "Communicating research to multidisciplinary audiences," Fargo, ND. (December 4, 2017).


Bohn, Meyer (Author & Presenter), Hopkins, David (Author), Gasch, Caley (Author), Steele, Dean (Author), Tuscherer, Sheldon (Author), International Meetings of the ASA-CSSA-SSSA, "Predicting soil health and function from remote-sensed evapotranspiration and terrain attributes in the glaciated plains of eastern North Dakota," ASA-CSSA-SSSA, Tampa, FL. (October 24, 2017).

Leitner, Zachery (Author & Presenter), Daigh, Aaron (Author), Gasch, Caley (Author), DeJong-Hughes, Jodi (Author), Wick, Abbey (Author), International Meetings of the ASA-CSSA-SSSA, "Temporal dynamics of microbial communities during natural wetting and drying cycles of select reduced tillage systems," ASA-CSSA-SSSA, Tampa, FL. (October 24, 2017).


Goos, R J. (Professor)  


Goos, R. Jay (Presenter), Colfax Farmer "Table Talk" session, "IDC and soybeans, what have we learned," NDSU Extension, Colfax, ND. (January 17, 2017).

Hargiss, Christina L. (Assistant Professor)


Hargiss, Christina, North Central Chapter of the Society of Wetland Scientists Meeting, "State wetland laws in the North Central Chapter of SWS." (2017).


Kral, Katherine, Hovick, Torre, Limb, Ryan, Harmon, Jason, Gillam, Erin, Annual School of Natural Resource Science Student Symposium, "Improving monarch (Danaus plexippus) conservation efforts by incorporating field behaviors," Fargo, ND. (December 2017).

Valls, Aleix, Harmon, Jason, Annual School of Natural Resource Science Student Symposium, "The importance of time when characterizing temperature effects on aphid fecundity," Fargo, ND. (December 2017).

Kral, Katherine (Author & Presenter), Harmon, Jason (Author), Limb, Ryan, Hovick, Torre (Author), Entomological Society of America Annual Meeting, "Behavioral field observations of monarchs (Danaus plexippus) in the Northern Great Plains," Entomological Society of America, Denver, CO. (November 2017).


Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan, Harmon, Jason (Author), Entomological Society of America Annual Meeting, "Grassland butterfly diet breadth and landscape use determines impacts of invasive plants and landscape configuration," Entomological Society of America, Denver, CO. (November 2017).


Harmon, Jason, Department of Entomology Seminar, "Global change and insects: diverse changes and effects," University of Minnesota, St. Paul, MN. (September 2017).

Harmon, Jason, North Central Branch Entomological Society of America Annual Meeting, "Connecting resistance and biological control through time and space," Indianapolis, IN. (June 2017).
Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), North Dakota Chapter of the Wildlife Society, "Conservation of native plant-pollinator interactions in grassland working landscapes," Mandan, ND. (February 8, 2017).

Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Initial Investigation of Landscape Influences on Grassland Butterfly Densities in the Dakotas," St. George, UT. (January 31, 2017).

Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Investigating plant-pollinator networks to evaluate the influence of grassland management practices on ecosystem stability," St. George, UT. (January 31, 2017).

Harmon, Jason (Author & Presenter), Kral, Katherine (Author), Bendel, Cayla (Author), Hovick, Torre (Author), Limb, Ryan (Author), Society for Range Management, "Why do we need research on the conservation of pollinators in working landscapes?,” St. George, UT. (January 31, 2017).

Harris, Marion (Professor)

Harris, Marion O, 16th Symposium on Insect-Plant Relationships, "Plant Galls Induced by Insects: Lessons from Plant Galls Induced by Bacteria,” Tours, France. (July 5, 2017 - Present).

Hopkins, David G. (Associate Professor)

Bohn, Meyer (Author & Presenter), Hopkins, David (Author), Gasch, Caley (Author), Steele, Dean (Author), Tuscherer, Sheldon (Author), International Meetings of the ASA-CSSA-SSSA, "Predicting soil health and function from remote-sensed evapotranspiration and terrain attributes in the glaciated plains of eastern North Dakota," ASA-CSSA-SSSA, Tampa, FL. (October 24, 2017).


Hovick, Torre J. (Assistant Professor)

Kral, Katherine, Hovick, Torre, Limb, Ryan, Harmon, Jason, Gillam, Erin, Annual School of Natural Resource Science Student Symposium, "Improving monarch (Danaus plexippus) conservation efforts by incorporating field behaviors," Fargo, ND. (December 2017).

Kral, Katherine (Author & Presenter), Harmon, Jason (Author), Limb, Ryan, Hovick, Torre (Author), Entomological Society of America Annual Meeting, "Behavioral field observations of monarchs (Danaus plexippus) in the Northern Great Plains," Entomological Society of America, Denver, CO. (November 2017).


Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan, Harmon, Jason (Author), Entomological Society of America Annual Meeting, "Grassland butterfly diet breadth and landscape use..."


Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), North Dakota Chapter of the Wildlife Society, "Conservation of native plant-pollinator interactions in grassland working landscapes," Mandan, ND. (February 8, 2017).

Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Initial Investigation of Landscape Influences on Grassland Butterfly Densities in the Dakotas," St. George, UT. (January 31, 2017).

Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Investigating plant-pollinator networks to evaluate the influence of grassland management practices on ecosystem stability," St. George, UT. (January 31, 2017).

Harmon, Jason (Author & Presenter), Kral, Katherine (Author), Bendel, Cayla (Author), Hovick, Torre (Author), Limb, Ryan (Author), Society for Range Management, "Why do we need research on the conservation of pollinators in working landscapes?,” St. George, UT. (January 31, 2017).

Kobiela, Breanna (Research Scientist)


Limb, Ryan (Assistant Professor)

Kral, Katherine, Hovick, Torre, Limb, Ryan, Harmon, Jason, Gillam, Erin, Annual School of Natural Resource Science Student Symposium, "Improving monarch (Danaus plexippus) conservation efforts by incorporating field behaviors," Fargo, ND. (December 2017).


Kral, Katherine (Author & Presenter), Harmon, Jason (Author), Limb, Ryan, Hovick, Torre (Author), Entomological Society of America Annual Meeting, "Behavioral field observations of monarchs (Danaus plexippus) in the Northern Great Plains," Entomological Society of America, Denver, CO. (November 2017).


Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan, Harmon, Jason (Author), Entomological Society of America Annual Meeting, "Grassland butterfly diet breadth and landscape use


Limb, Ryan (Author), Sedivec, Kevin (Author & Presenter), Daigh, Aaron (Author), DeSutter, Thomas (Author), North Dakota Industrial Commission, "Reclamation options for legacy brine waste pits in north-central North Dakota: effects of remediation techniques on grass species," North Dakota Industrial Commission, Bismarck, ND. (March 15, 2017).

Daigh, Aaron (Author & Presenter), Klaustermeier, Aaron (Author), Limb, Ryan (Author), Sedivec, Kevin (Author), DeSutter, Thomas (Author), North Dakota Reclamation Conference, "Approaching brine spills from the surface: a research update on using crystallization inhibitors," Dickinson, ND. (February 2017).

Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), North Dakota Reclamation Conference, "Effects of remediation techniques on selected grass species seeding’s associated with legacy brine waste pits in north-central North Dakota," Dickinson, ND. (February 2017).


Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), North Dakota Chapter of the Wildlife Society, "Conservation of native plant-pollinator interactions in grassland working landscapes," Mandan, ND. (February 8, 2017).


Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), Norland, Jack (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), Comeau, Paula (Author), Society for Range Management Annual Meeting, "Evaluation of reclamation and remediation techniques associated with oil and gas production in the Northern Plains," Society for Range Management, St. George, UT. (January 29, 2017 - February 1, 2017).

Kral, Katherine (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Initial Investigation of Landscape Influences on Grassland Butterfly Densities in the Dakotas," St. George, UT. (January 31, 2017).

Bendel, Cayla (Author & Presenter), Hovick, Torre (Author), Limb, Ryan (Author), Harmon, Jason (Author), Society for Range Management, "Investigating plant-pollinator networks to evaluate the influence of grassland management practices on ecosystem stability," St. George, UT. (January 31, 2017).

Harmon, Jason (Author & Presenter), Kral, Katherine (Author), Bendel, Cayla (Author), Hovick, Torre (Author), Limb, Ryan (Author), Society for Range Management, "Why do we need research on the conservation of pollinators in working landscapes?,” St. George, UT. (January 31, 2017).

Mathews, Shiny (Staff)


McGranahan, Devan A. (Assistant Professor)


Norland, Jack E. (Associate Professor)


Vererka, Donald (Author & Presenter), Norland, Jack (Author), NDSU Explore Event, "Germination and odor survey Fetid Marigold (dyssodia papposa)," NDSU, NDSU. (November 3, 2017).


Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), Norland, Jack (Author), DeSutter, Thomas (Author), Klaustermeyer, Aaron (Author), Tomlinson, Hannah (Author), Comeau, Paula (Author), Society for Range Management Annual Meeting, "Evaluation of reclamation and remediation techniques associated with oil and gas production in the Northern Plains," Society for Range Management, St. George, UT. (January 29, 2017 - February 1, 2017).


Ritchison, Daryl (Staff)


Ritchison, Daryl, Bismarck Bank Meeting, "NDAWN Use and functionality," Bismarck, ND. (September 27, 2017).

Ritchison, Daryl, Eggs and Issue, "NDAWN Use and functionality in the Drought," FMWF Chamber, Moorhead. (September 6, 2017).


Ritchison, Daryl, Lions Club, "NDAWN Use and functionality," Moorhead Lions Club. (June 1, 2017).


Ritchison, Daryl, "Historical Blizzard," Good Samaritan Community, Fargo. (March 27, 2017).


Sedivec, Kevin K. (Professor)


Sedivec, Kevin (Presenter), Central Dakota Ag. Days, "Range management strategies following drought," Carrington Research Extension Center, Carrington, ND. (December 19, 2017).


Sedivec, Kevin (Presenter), Range Research Round Table, "The role of plant diversity in a healthy ecosystem," USDA ARS, Mandan, ND. (December 14, 2017).

Sedivec, Kevin (Presenter), North Central Beef Days, "Range management strategies following drought," Minot Research Extension Center, Minot, ND. (December 6 - December 7, 2017).

Sedivec, Kevin (Presenter), Grazing Ecology, "Grazing systems," Dickinson State University, Dickinson, ND. (December 1, 2017).

Sedivec, Kevin (Presenter), Range Sampling Techniques, "Monitoring grasslands using applied techniques," North Dakota State University, Fargo, ND. (November 30, 2017).


Sedivec, Kevin (Presenter), Introduction to Range Management, "Indicators Plant Species," Dickinson State University, Dickinson, ND. (November 21, 2017).

Sedivec, Kevin, Natural resources management alternatives for cropping systems, "Range management strategies following drought," Audubon Society, Scranton, ND. (November 1, 2017).

Link, Austin (Author & Presenter), DeSutter, Thomas (Author), Staricka, James A (Author), Sedivec, Kevin (Author), Augustin, Christopher (Author), Prasad Pradhan, Gautam (Author), Bergman, Jerry W (Author), International meetings of the ASA-CSSA-SSSA, "Effects of cropping sequence, ripping, and manure on pipeline reclamation in western North Dakota," ASA-CSSA-SSSA, Tampa, FL. (October 2017).

Sedivec, Kevin (Author & Presenter), Meehan, Miranda (Author), North Dakota State University Extension Fall Conference, "Drought Management on Rangelands," North Dakota State University Extension Service, Fargo, ND. (October 26, 2017).

Sedivec, Kevin (Author & Presenter), Brummer, Fara (Author), Berg, Mary (Author), Nester, Penny (Author), Augustine, Christopher (Author), Gearhart, Sheldon (Author), Buckley, Jackie (Author), Schmidt, Bruce (Author), Whitted, Dennis (Author), North Dakota State University Extension Fall Conference, "Bale grazing demonstration," North Dakota State University Extension Service, Fargo, ND. (October 25, 2017).

Sedivec, Kevin (Presenter), Soil Health Workshop, "Using cover crops for late season grazing," North Dakota State University Soil Health Program, Mooreton, ND. (October 19, 2017).

Sedivec, Kevin (Presenter), Kidder County Livestock Workshop, "Range management strategies following drought," Kidder County Extension Service, Tappen, ND. (September 28, 2017).

Sedivec, Kevin (Presenter), Pierce County Livestock Workshop, "Range management strategies following drought," Pierce County Extension Service, Harvey. (September 27, 2017).

Sedivec, Kevin (Presenter), Sheridan County Livestock Workshop, "Range management strategies following drought," Sheridan County Extension Service, McClusky, ND. (September 27, 2017).


Sedivec, Kevin (Presenter), Mountrail County Range Workshop, "Range management principles and plant identification," Mountrail County Extension Service, Mountrail County SCD, Stanley, ND. (September 19, 2017).

Sedivec, Kevin (Presenter), Slope County Livestock Workshop, "Forage managing strategies," Slope County Extension Service, Slope County SCD, Amidon, ND. (September 13, 2017).


Sedivec, Kevin (Coordinator/Organizer), Central Grasslands Research Extension Center, "Central Grasslands Research Extension Center Welcome," North Dakota State University Agricultural Research Station, Streeter, ND. (July 10, 2017).


Sedivec, Kevin (Presenter), Rollette County Weed Management Workshop, "Managing weeds on rangelands," Rollette County Extension Service, Rollette County SCD, Belcourt, ND. (June 13, 2017).

Sedivec, Kevin (Presenter), State-wide drought assessment, "Managing rangelands with drought," North Dakota Department of Agriculture, Velva, ND; Dickinson, ND. (June 12, 2017).

Meehan, Miranda (Author & Presenter), Sedivec, Kevin (Author & Presenter), County Agent In-service Training, "Grassland and Forage Production Monitoring Tools," North Dakota State University Extension Service, Streeter, ND. (May 25, 2017).

Meehan, Miranda (Author & Presenter), Sedivec, Kevin (Author & Presenter), County Agent In-service Training, "Grassland and Forage Production Monitoring Tools," North Dakota State University Extension Service, Minot, ND. (May 24, 2017).

Limb, Ryan (Author), Sedivec, Kevin (Author & Presenter), Daigh, Aaron (Author), DeSutter, Thomas (Author), North Dakota Industrial Commission, "Reclamation options for legacy brine waste pits in north-central North Dakota: effects of remediation techniques on grass species," North Dakota Industrial Commission, Bismarck, ND. (March 15, 2017).

Daigh, Aaron (Author & Presenter), Klaustermeier, Aaron (Author), Limb, Ryan (Author), Sedivec, Kevin (Author), DeSutter, Thomas (Author), North Dakota Reclamation Conference, "Approaching brine spills from the surface: a research update on using crystallization inhibitors," Dickinson, ND. (February 2017).

Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), North Dakota Reclamation Conference, "Effects of remediation techniques on selected grass species seeding’s associated with legacy brine waste pits in north-central North Dakota," Dickinson, ND. (February 2017).

Sedivec, Kevin (Presenter), Animal Science 210 Beef Production, "Grazing management principles,” North Dakota State University, Fargo, ND. (February 23, 2017).


Sedivec, Kevin (Presenter), Barnes County Livestock Workshop, "Grazing management to enhance harvest efficiency," Barnes County SCD, Valley City, ND. (February 16, 2017).


Sedivec, Kevin (Author & Presenter), Limb, Ryan (Author), Daigh, Aaron (Author), Norland, Jack (Author), DeSutter, Thomas (Author), Klaustermeier, Aaron (Author), Tomlinson, Hannah (Author), Comeau, Paula (Author), Society for Range Management Annual Meeting, "Evaluation of reclamation and remediation techniques associated with oil and gas production in the Northern Plains," Society for Range Management, St. George, UT. (January 29, 2017 - February 1, 2017).

Voldseth, Deirdre A. (Associate Professor)


Glogoza, Benjamin (Presenter), Voldseth, Deirdre, National meeting of the Entomological Society of America, "Using biofertilizers to enhance mutualisms between specialty crops and beneficial insects,” Entomological Society of America, Denver, CO. (November 5, 2017 - November 8, 2017).

Wick, Abbey F. (Assistant Professor)


Leitner, Zachery (Author & Presenter), Daigh, Aaron (Author), Gasch, Caley (Author), DeJong-Hughes, Jodi (Author), Wick, Abbey (Author), International Meetings of the ASA-CSSA-SSSA, "Temporal dynamics of microbial communities during natural wetting and drying cycles of select reduced tillage systems," ASA-CSSA-SSSA, Tampa, FL. (October 24, 2017).


Zeleznik, Joseph (Extension Specialist)

Awards and Honors
North Dakota State University
January 1, 2017 - December 31, 2017

Agribusiness and Applied Econ

Hanson, Erik (Assistant Professor)

    William J. and Angelyn A. Austin Excellence in Advising Award, NDSU College of Agriculture, Food Systems, and Natural Resources (2017)

Machunda, Zachary (Lecturer)

    Faculty Appreciation Award, he Athletic Academics/Student Success Programs at NDSU (North Dakota State University (April 21, 2017)

Ripplinger, David G. (Assistant Professor)

    Program Excellence, North Dakota State University Extension (2017)

Miljkovic, Dragan (Professor)

    Served on the Executive Board, International Agricultural Trade Research Consortium (IATRC) (2017)

    Named Managing Editor of the Journal of Agricultural and Resource Economics (JARE), Journal of Agricultural and Resource Economics (JARE) (November 2017)

    Elected as Faculty Adviser, NDSU chapter of the Alpha Gamma Rho fraternity (September 2017)

Wachenheim, Cheryl J. (Professor)

    Mary McCannel Gunkelman Recognition Award (2017)

Zhang, Lei (Assistant Professor)

    North American Colleges and Teachers of Agriculture Teaching Award of Merit, North American Colleges and Teachers of Agriculture (April 2017)

Agricultural & Biosystems Eng

Bajwa, Sreekala (Professor)

    Fellow of ASABE, ASABE (July 2017)

Rahman, Shafiqur (Associate Professor)
Outstanding Associate Editor Award, American Society of Agricultural and Biological Engineers (ASABE) (July 17, 2017)

Animal Science

Baranko, Loren L. (Lecturer)
- Earl and Dorothy Foster Excellence in Teaching Award, NDSU College of Agriculture (December 2017)
- Teaching Award of Merit, NACTA & NDSU College of Agriculture (March 2017)

Bauer, Marc L. (Associate Professor)
- Excellence in Advising, NDSU Agriculture and Extension (December 7, 2017)
- Faculty/Staff Advisor of the Year, NDSU Fraternity and Sorority Life (April 21, 2017)

Berg, Eric P. (Professor)
- American Meat Science Association Fellow (June 20, 2017)
- Signal Service Award, American Meat Science Association (June 20, 2017)

Caton, Joel S. (Professor)
- Phi Kappa Phi Faculty Lectureship, NDSU (November 2017)

Hammer, Carolyn (Associate Professor)
- Eugene R. Dahl Excellence in Research Award, North Dakota State University (2017)

Hanna, Lauren (Assistant Professor)
- Larson/Yaggie Excellence in Research Award, North Dakota Agricultural Experiment Station (December 8, 2017)

Wagner, Sarah A. (Professor)
- H.Roald and Janet Lund Excellence in Teaching Award, CAFSNR (December 7, 2017)

Hoffman, Travis (Assistant Professor)
- Program Excellence: Sheep to Sweater, NDSU Extension (October 26, 2017)
- Member Inductee, Gamma Sigma Delta (April 4, 2017)
Meehan, Miranda A. (Assistant Professor)
Myron and Muriel Johnsrun Excellence in Extension/Outreach, North Dakota State University College of Agriculture (December 7, 2017)

Microbiological Sciences
Bergholz, Peter W. (Assistant Professor)
Member, Gamma Sigma Delta Agriculture Honors Society (April 4, 2017)

Gustad, Thomas R. (Instructor)
H. Roald and Janet Lund Excellence in Teaching Award, NDSU Agriculture and Extension (December 7, 2017)

Plant Pathology
Pasche, Julie S. (Assistant Professor)
Researcher Excellence Award, Northern Pulse Growers Association (January 23, 2017)
Friskop, Andrew J. (Assistant Professor)
Extension Education Community Educational Materials Award, 2017 American Society of Agronomy Award (2017)

Plant Sciences
Howatt, Kirk (Associate Professor)
ASA Extension Education Community Education Materials, American Society of Agronomy (October 25, 2017)
Owl Award, NDSU Ag Collective (April 7, 2017)
McGinnis, Esther E. (Assistant Professor)
Nominated Harlene Hatterman-Valenti for the Chamber of Commerce NDSU Distinguished Faculty Service Award (January 2017)
Peters, Thomas J. (Assistant Professor)
Monsanto (2017)
Franzen, Dave W. (Professor)

Award of Excellence Extension Publications 20 pages or more, American Society of Agronomy (October 24, 2017)

No-Till Innovator Award in Research and Extension, National No-Till Association (January 12, 2017)

Boetel Ph.D., Mark A. (Professor)

National Extension Leadership Development (NELD) training workshop, NDSU Extension Administration (January 2017)

Casey, Francis (Professor)

Nominated SSSA Soil Physics & Hydrology Division Chair-Elect, Soil Science Society of America (2017)

Cihacek, Larry J. (Professor)

2017 Outstanding Service Award, Soil and Water Conservation Society (August 1, 2017)

Certificate of Appreciation for Advising, NDSU Marksmanship Club (May 3, 2017)

Hargiss, Christina L. (Assistant Professor)

Peltier Innovation in Teaching Award (December 2017)

Best Poster Presentation given to Jesse Riley my Ph.D. student, North Central Chapter Society of Wetland Scientists Meeting (2017)

Nominated for Excellence in Course Assessment, NDSU Office of Teaching and Learning (2017)

Limb, Ryan (Assistant Professor)

Distinguished Service Award - Research & Development Program, Lignite Energy Council (April 2017)

Norland, Jack E. (Associate Professor)


Voldseth, Deirdre A. (Associate Professor)

NACTA Teaching Award of Merit, North American Colleges and Teachers of Agriculture (April 2017)