



# Extension to the 21st Century

A History of the  
North Dakota  
State University  
Extension Service

1985-2003

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# Preface

During the NDSU Extension Service fall conference in 2002, at a noon luncheon meeting of Epsilon Sigma Phi, Director Sharon Anderson asked me if I would be interested in doing an update of the organization's history. As a retired editor, amateur historian and proud veteran of over three decades in extension work, I was delighted to take the job.

This document is intended to be a supplement to *Hired Hands and Volunteers: A History of the North Dakota State University Extension Service* by Stanley W. Bale. Bale's book tells the story of extension work in North Dakota from its beginnings to roughly 1985. It was published in 1989. The supplement continues the story from 1985 to 2003, with some overlap. This author made no attempt to emulate Stan's unique style, so the current effort is very different from the original.

In his foreword, Stan alluded to his and earlier efforts to produce a written history of the extension service and the fact that absence of endnotes and a bibliography prevent them from being called a "history" in the true sense of the word. That has not changed with the current author. This is in no way a "scholarly" work. I have attempted to identify sources within the text, especially when referring to items from the news media. But much — perhaps most — of the information comes from unpublished material from extension service file drawers. Some comes from interviews and conversations with people involved, including the author's own memory. Memory is certainly fallible, but I have done my best to corroborate facts from my own and others' recollections.

This is obviously not the "whole" story of extension from 1985 to 2003. Anyone involved during that period can list valuable efforts and programs that receive little or no mention. It is an attempt to tell about the significant events and people that shaped extension and provide some examples of extension's efforts during those years.

My thanks to everyone who helped me with this project: Sharon Anderson for offering me the opportunity and providing information and insights; those who shared their time (and some old file folders) to personally tell me their stories, including Myron Johnsrud, Darnell Lundstrom, Duane Berglund, Duane Hauck, Jay Fisher and others; and Lori Lymburner for her time and patience.

Gary Moran

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# Introduction:

## The NDSU Extension Service in 2004

The official birth of the organization now called the NDSU Extension Service dates to 1914, when passage of the Smith-Lever Act created the Cooperative Extension Service and made funds available for state extension efforts. Thomas P. Cooper, director of the North Dakota Better Farming Association, was named the first director of the North Dakota Cooperative Extension Service, headquartered at North Dakota Agricultural College. He was also appointed director of the Agricultural Experiment Station.

However, extension-type outreach activities had been ongoing at NDAC almost since its establishment in 1890. David Danbom, in his history of the Agricultural Experiment Station, says, "In addition to the multifaceted job of organizing and defining the work, the Station also faced the task of popularizing it."<sup>1</sup>

Under the leadership of Horace E. Stockbridge, president of NDAC and experiment station director, this popularization included the setting of the research agenda, initially emphasizing applied rather than basic research, and providing service to the residents of the state in such things as soil and water testing, identifying weeds and insects, testing seed for germination, and "...any and all directions wherein the application of science may be expected to facilitate or aid practice."

In addition, farmers institutes provided educational outreach programs throughout the state.

County agent work predated the Smith-Lever Act with establishment of the Better Farming Association in 1911. The first agent appointed was M.B. Johnson, in Bottineau County, in January 1912. Twelve counties had

Better Farming agents in 1914, when the newly formed extension service assumed the role.

In the first decade of the 21<sup>st</sup> Century, much has changed, but much remains the same. In a "White Paper" prepared in January 2000, Director Sharon Anderson said:

*The North Dakota State University Extension Service exists to serve the people of North Dakota. The Cooperative Extension System was established in 1914 to address through education critical needs of the public in the areas of agriculture, family and youth. The work of the Extension Service continues to be extremely important to producers, families, community leaders and young people. Extension maintains a unique relationship among federal, state and county constituents. Local input into programs, combined with support and funding from state and federal partners, enables the Extension Service to truly meet the needs of people.*

To fulfill its mission, "To create learning partnerships that help adults and youth enhance their lives and communities," the NDSU Extension Service provides planned programs, responsive programs and programs to address community issues as they arise.

Planned programs are developed with an ongoing program planning process, typically involving discussions with advisory councils, program planning team meetings, program development and program implementation. Extension forms partnerships with groups and individuals to identify issues and deliver programs.

At this time eight program planning teams consisting of county, area and state extension staff plus researchers at the NDSU campus and the Research Extension Centers

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<sup>1</sup>Danbom, David B., "Our Purpose is to Serve' The First Century of the North Dakota Agricultural Experiment Station" (Fargo, North Dakota Institute for Regional Studies, 1990, p. 19)

and often clientele and members of other agencies guide program development. The teams are:

- Cropping Systems in the 21st Century
- Community, Economic Development and Leadership
- 4-H Youth Development
- Competitiveness and Profitability of Animal Systems
- Farm and Family Economics
- Nutrition, Food Safety and Health
- Natural Resources and Environmental Management

Responsive programs are those that address urgent situations, such as excessive rain, hail, tornadoes, floods, drought, serious financial problems or other health, environmental or economic issues. Urgent situations often require that extension staff respond with little preparation time.

Community issues often involve public issues that have many viewpoints and no simple answers. The role of extension is to provide accurate information about all sides of issues and help lead communities through a process that can bring about resolution.

Delivering programs is as important as developing them. People seek information in many ways and in many places, and want it in a form that is right for them. Each program must be made available in multiple ways, and staff need to be trained to use a variety of delivery methods. A strong county-based extension network is traditionally the main avenue for program delivery. Today extension agents also provide programs on a multicounty basis, as each agent specializes in a program emphasis area and delivers programs in that area within their multicounty program unit (MPU).

County staff members are located in 52 county offices and at the Fort Berthold reservation. In most cases half of their salary is paid by the county partner. Applicants for county positions are required to have a bachelor's degree and preference is given to those with master's degrees. Also located in county offices and on reservations are paraprofessionals delivering the Expanded Food and Nutrition Education Program (EFNEP) and the Family Nutrition Program (FNP). These programs are funded through USDA with matching county support.

Area staff are located at the Dickinson, Williston, North Central (Minot) and Carrington Research Extension Centers. Other area staff are located in county offices, and some work out of an area office. Most area staff have master's or doctoral degrees, providing a higher level of skill and knowledge to add to programs developed by county staff and extend the expertise of state specialists.

State specialists are located on the NDSU campus and may have joint appointments with the Agricultural Experiment Station, the College of Agriculture or the College of Human Development and Education. Some extension specialists are not in faculty positions but focus on specific programs such as pesticides, farm safety, EFNEP, FNP and 4-H and may not require a doctoral degree.

Support staff help deliver information to the public through the office environment, usually serving as the first point of contact to NDSU for office callers and visitors. Technical staff help prepare and deliver educational materials through print, audio, video, graphic and computer technology.

Funding of the NDSU Extension Service has traditionally been a blend of federal, state and county dollars. In the early 21<sup>st</sup> Century, federal dollars comprise about 23 percent of the budget. Nearly 44 percent of extension resources come from the state legislature, and county commissioners support about 20 percent of the extension budget by paying half of their agents' salaries as well as operating expenses for county offices. Grants, contracts and partnerships provide the remainder of extension funding and are increasing in importance.

# Extension to the 21st Century: The Leadership

In 1985, Ronald Reagan was in the first year of his second term as president and George Sinner was starting his first term as governor of North Dakota. In world headlines, Mikhail Gorbachev took power in the Soviet Union. His policies of glasnost and perestroika would soon follow and, before the end of the decade, the Berlin Wall would fall and the Soviet Union begin to crumble. Disasters struck, as a major earthquake in Mexico City and a volcano eruption in Colombia caused heavy loss of lives. On the lighter side, the San Francisco 49ers won the Super Bowl and the Kansas City Royals were World Series champions. “Out of Africa” won the Academy Award for best movie, and “We are the World,” recorded to aid famine relief in Africa, won the Grammy Award for best record.

At North Dakota State University, Dr. Laurel D. Loftsgard was serving as president, a position he held from January 1968 to his death in October 1987. (Loftsgard was the first native North Dakotan and NDSU alumnus to serve in that position, having received a B.S. degree in agricultural economics in 1954. He earned M.S. and Ph.D. degrees at Iowa State University, served on the NDSU agricultural economics faculty and was vice president for academic affairs before being appointed acting president of NDSU in January 1968. The appointment was made permanent six months later.) Also on the campus, the Bison football team won an NCAA Division II national championship, defeating North Alabama in the title game at McAllen, Texas. The women’s basketball team would start a season that finished as national runner up in 1986.

On the agriculture side of the campus, H. Roald Lund was dean of agriculture and director of the Agricultural Experiment Station. Myron Johnsrud was director of the extension service.

## Myron Johnsrud

A North Dakota native from the Watford City area, Johnsrud received a B.S. degree at NDSU. He served as an assistant county agent in Williams County, then took study leave to complete M.S. and Ph.D. degrees at the University of Wisconsin. He then returned to NDSU as director of program and staff development for the extension service. In 1971 he went to Washington, D.C. as coordinator of program and staff development for Extension Service USDA. Following the death of director Arthur Schulz in 1972, he was named associate director of extension in March 1973 and became director in July 1974.

While eminently qualified for the position, Johnsrud did not necessarily fit the mold that some perceived for the director of extension. He had served only briefly in a county extension position—as an assistant rather than an agent—and his post graduate degrees were in extension education and administration rather than in a subject matter area. Recent directors had gone “through the ranks” from county agent to state specialist positions before entering administration. Skepticism from some traditionalists was soon overcome, and Johnsrud’s appointment was an early example of a nationwide trend toward more diversity among extension directors, some coming from other parts of the university, some from the private sector.

Johnsrud describes the mid 1980s as a good time for extension, and a good time to be at NDSU. He says the university had a very compatible administrative team, from the president’s office, to vice presidents, to deans and directors. Collegiality ran high, with an administration that included Katherine Burgum, Les Pavek, James Sugihra and Don Stockman. The university and extension were in reasonably good financial condition and

enjoyed a good relationship with the state legislature—no lavish budgets, but comfortable. President Loftsgard was “...not necessarily good in Bismarck, but Don Stockman was,” according to Johnsrud.

Loftsgard was excellent to work with, Johnsrud says. His style was to lay the groundwork but to not give much specific direction, allowing deans and directors latitude to work things out.

In particular, Johnsrud had good working relations with his closest counterpart, H.R. Lund, dean of agriculture and director of the experiment station. As the two top agricultural administrators, at that time both reporting directly to the president, it would have been very easy for a strong rivalry over resources and turf to develop, but the two instead worked together for mutual benefit. Johnsrud says he and Lund were very different people, but they respected each other and cooperated in such matters as joint appointments to create the greatest benefit for the university and clientele. They were always able to present a united front for research and extension to the legislature and other interest groups.

Johnsrud says the tenor of those days contributed to upgrading the extension staff, both in adding new positions and being able to recruit experienced, well-qualified people for a variety of positions, including newly created area agent positions. More of the new hires were people from outside North Dakota, which did not meet with complete approval. At a 1986 meeting of the North Dakota Association of Extension Agents, a motion was passed to recommend that administration give preference to hiring North Dakota residents.

Not all was rosy, however, as budget cuts at both federal and state levels in 1986 created a funding pinch amounting to \$735,000, the equivalent of about 12 full time positions. An article in *The Forum* of April 3, 1986, by staff writer Mikkil Pates calls the immediate shortfall “the bad news,” followed by “the worse news” that programs must be cut to establish reserves in anticipation of even deeper future cuts.

“This is not the kind of message a state extension director enjoys presenting to staff,” Johnsrud told the annual extension service conference. “However, not making reasonable plans and not sharing what is being planned is even more distasteful.”

Johnsrud’s associate director in 1985 was William H. Pietsch. Other administrators were: Duane Berglund, assistant director, agriculture and community development; F.C. “Chuck” Humphrey, assistant director, communication; Thomas Martindale, assistant director, 4-H and youth; Sue Fowler, assistant director, home economics; Sharon Anderson, northeast district director; Wallace Eide, southeast district director; John Burbank, central district director; Marvin Condon, northwest district director; Harry Hecht, southwest district director and Gail Gunderson, coordinator, staff and organizational development. At mid-year, Martindale retired and Fowler resigned. Pietsch added duties of acting assistant director, home economics.

In 1986 Johnsrud went to Washington, D.C. as acting administrator for the federal extension service and was later named administrator. He served in that capacity for over seven years, then headed the National Association of State Universities and Land Grant Colleges (NASULGC) for three years.

## William H. Pietsch

When Myron Johnsrud left for Washington, D.C., to serve as interim administrator of Extension Service USDA, Bill Pietsch, associate director, was named interim director of North Dakota extension.

Pietsch, a native of Casselton, North Dakota, received B.S. and M.S. degrees in agricultural economics at NDSU and a doctorate from Washington State University. He worked with the USDA Agricultural Research Service in Denver and as an extension specialist at Washington State before returning to NDSU as assistant extension director for agriculture and community development in 1979. He became associate director in 1983.

When the Johnsrud interim appointment in Washington became a permanent one, Pietsch continued as interim director, the decision on a permanent director delayed by the death of president L.D. Loftsgard. He was named director in early 1988.

The January-February issue (Vol. 45, No.4) of North Dakota Farm Research, the bimonthly publication of the Agricultural Experiment Station, featured a cover photo of Pietsch and H.R. Lund, dean of agriculture and station director. In a guest column in that issue, Pietsch

stated his intention to pursue a businesslike approach to delivering research-based educational programs and said, "To determine how you, our customers, feel about the value you're getting from the tax dollars you spend on agricultural research and extension in North Dakota, Dr. Lund and I want to hear from you."

## Uncertainty and Anxiety

He had taken the reins as interim director during a period when, as he stated in a May 27, 1987 issue of his "Perspectives" staff newsletter, "...the past year has been one of uncertainty and anxiety for our organization," particularly a volatile funding situation in light of the legislature reducing the general fund allocation for 1985-87 by 10 percent and reallocating over \$250,000 from wages and salaries to support electronic technology. Staff reductions had resulted in 11 county positions closed, an area agronomy/soils position closed, resignations of two county agents and one area agent, and retirement of 11 state specialists.

In a July 17 letter to extension staff, Pietsch said, "As I begin work today, I sense a change in the feel of our organization. Within about two months, more than 20 of our friends and fellow workers have been separated from us. Some of them are entering new careers or retirement with excitement and anticipation, others are anxious about the future and their ability to deal with the uncertainty it holds, and still others are struggling with the denial and anger that represents a natural reaction to forced changes imposed upon any of us."

Calling for a team effort to cope with challenging times, he said, "I think the people of North Dakota, their communities and businesses are going to experience tremendous change over the next decade. To help people experience this transition in positive ways will require the very best of us all."

About a year later he commented publicly on the strain the organization had faced. An Associated Press article in *The Forum* of June 2, 1988, was headlined, "Extension director says staff overworked." The article quoted Pietsch as saying the mood of the extension staff is "very positive" but that, "My concern is eventually you get to the point where people have exhausted themselves... They have put their constituents ahead of the time they would really need and prefer to spend with their families. I think that our staff have done a great job. My concern is that you can't go on overload endlessly."

A June issue of "Perspectives" was more upbeat, however, reporting that the State Board of Higher Education had approved a program encouraged by the Consultation Board that involved increased funding of \$585,000 to help develop an advanced learning center, expand the self-esteem for youth effort by focusing on entrepreneurship, and initiate an intensive management development program for county extension staff.

## Regionalization Recommended

The 1989 legislative session acted on a recommendation by Gov. George Sinner to create eight regional extension centers to replace county extension offices. The legislature modified Sinner's recommendation, but it budgeted and reallocated funds to create the centers. Following the session Pietsch appointed a team of extension staff to recommend locations for 14 to 18 centers and a staffing pattern. The session also passed increases in income, sales and gasoline taxes. These taxes were then referred, creating uncertainty regarding funding. In a message to extension staff in August, Pietsch said, "At our Extension Cabinet meeting we spent a great deal of time developing contingency plans to continue our organizational transition regardless of the outcome of the pending tax referral."

In the December 5 special election, the three tax measures, along with five other referred bills, received a resounding "no" vote. Said Pietsch in an issue of "Perspectives," "Despite yesterday's resounding rejection of eight actions of our elected representatives by the citizens of our state, daylight came to Fargo at its normal time today. I'm sure it did the same wherever you live." He also prophetically observed, "The impact of state funds no longer covering many of the costs of local service delivery will certainly be felt in property taxes or service reduction — or both. I believe the combination is likely to lead to rapid consolidation of functions and services in primary and secondary schools and county government. As these changes take place, what we in extension do and how we do it will certainly change as well."

In the February "Advisor," a newsletter for extension advisory councils, he pointed out that the rescission of \$836,986 from the 1989-91 biennial budget meant a delay in implementation of area centers until at least 1991. Other plans to deal with the reduced budget included reducing equipment expenditures and leaving positions that would have staffed the area centers

vacant. "We do not intend to terminate any current staff in order to live within the funds available." (Salary adjustments scheduled for July 1, 1990, were also eliminated.)

In the midst of this turmoil, there had been a positive development for NDSU and the extension service. At its October 1998 meeting, the Board of Higher Education gave approval to establishment of the Institute for Business and Industry Development, intended to make the technology transfer model of the land grant university available to non-farm industry and manufacturers. The institute was designated a joint venture of the NDSU president's office, the Agricultural Experiment Station and the NDSU Extension Service. Former extension specialist and district director Wally Eide was named as director. IBID offered advice, business and technical assistance, training and research to firms needing help manufacturing or marketing a product, using the extension model to tap areas of the university besides the traditional agriculture and family science.

This idea of the university system participating in economic development through extension-type activities led to a special assignment for Pietsch. In late 1991 he was appointed temporary assistant for economic development to Douglas Treadway, chancellor of the North Dakota University System. During the one-year reassignment he was to inventory what the system was doing in economic development, form an advisory panel to guide development activities, and act as a liaison between the system and other agencies. He retained his director title during the year-long assignment, but day-to-day duties were shifted to Sharon Anderson and Darnell Lundstrom from extension administration and J.W. Schroeder, who served as an assistant to the director.

## A New President

During Pietsch's tenure as director, changes were taking place within the university that would ultimately affect the structure of extension and the career of Bill Pietsch. Following the death of L.D. Loftsgard in October 1987, Robert Koob, long-time faculty member and administrator at NDSU, served as interim president and became a candidate for the permanent position. Other finalists for the job were Richard Sauer, interim president of the University of Minnesota; Averett Tombes, vice president for research and dean of graduate studies at Wichita State University, and James L. Ozbun, dean of

agriculture and home economics at Washington State University.

Both Ozbun and Sauer had degrees from NDSU and ties to the region. Sauer's candidacy was troubled by accusations of plagiarism when he failed to attribute material used in a campus speech. Tombes was noted for his business approach to education administration; Koob was recognized as the insider who had spent most of his career at NDSU, advancing from assistant professor to vice president for academic affairs. Much was made of NDSU's agricultural tradition, with a headline in *The Forum* stating, "Ag man, or not an ag man, may be the question." James Ozbun, the ag man, was the successful candidate.

Like most new presidents, Ozbun came to NDSU, in August 1988, with an ambitious agenda to place his own mark on the university. Many of his efforts were well-received by the faculty and the public; unfortunately, others resulted in great controversy. A series of events that ruffled feathers on campus, with the public and with legislators included a proposal to build a new president's residence, use of federal agricultural research grant funds to help fund construction of a campus street, a skyway linking two campus buildings, and expenditures of over \$27,000 to create a new university logo.

Ironically, after his strong background in agriculture had apparently been a factor favoring his selection as president, agricultural groups in the state expressed concern that Ozbun gave too little support to agriculture.

Part of the controversy on the part of both constituent groups and agriculture faculty and administration involved changes Ozbun made in reporting lines. Previously the director of extension and director of the experiment station, who was also dean of the College of Agriculture, had reported directly to the president and were members of the president's cabinet, although for a time in the early 1970s there had been a vice president for agriculture at NDSU, a position held by Kenneth A. Gilles, that constituted a level between the directors and the president. When Gilles left in 1974 for a position with the federal grain inspection service, the position was discontinued. Ozbun, following the line used at Washington State University, where he had been a dean, and at other universities, had the two directors report to the vice president for academic affairs, Sharon Wallace.

This and other differences of opinion about the extension director's role created strain. On March 27, 1993, an item in *The Forum* reported unnamed sources saying that Pietsch was leaving his extension post to become executive vice president of the North Dakota Farm Bureau. The move was confirmed at a March 29 press conference. A news story by staff writer Mikkel Pates in *The Forum* of March 30 called the resignation at least partly due to a rift between Pietsch and Ozbun. Pietsch was quoted, "I am out of alignment with the direction I believe this president is taking the institution. It's my responsibility to consider the alternatives that I have, and I've chosen one. I can't achieve my long-term objectives within the university."

On June 24, Ozbun announced his intention to step down from the presidency following the 1994-95 school year. In August he would announce an administrative reorganization that included creation of a vice president for agriculture and university outreach that would be responsible for research and extension. Dean Roald Lund protested splitting the research and academic functions and ultimately stepped down from his administrative role to return to the plant sciences faculty.

Following his service with the Farm Bureau, Pietsch was elected to a four-year term in the state legislature. He suffered a stroke and resigned his post prior to the 2003 legislative session. His wife Vonnie was selected to complete his term.

## Robert Christman

On May 1, 1993, Robert Christman became interim director of the extension service, pending a national search for a permanent director. Christman would not be a candidate, lacking the terminal degree required for qualification. On announcing the appointment, president Jim Ozbun said, "Bob Christman is uniquely qualified to lead the extension service as it enters these crucial next twelve months. His expertise in the complexities of federal agricultural policy is unparalleled and his eagerness to work on behalf of farmers is widely known."

Christman came to the position following 12 years as director of the North Dakota Agricultural Stabilization and Conservation Service. He earned B.S. and M.S. degrees from NDSU and had served as an assistant

county agent in Wahpeton and Dickinson between 1969 and 1972. He served as an agricultural aide to United States Senator Milton Young of North Dakota from 1972 until becoming state ASCS director in 1981.

Although new to extension administration and unfamiliar with the inner workings of the university, he almost immediately found himself involved in serious issues. One was another round of budget problems. General fund cutbacks by the legislature resulted in extension taking a \$1.3 million cut for the biennium. Regarding the 28 people who would be leaving extension as a result of downsizing, Christman said in a message to extension staff, "Happily, many of the staff who are not going to be part of extension after June 30, 1993, are exercising their right to retire...Unhappily, some of the staff who are leaving are doing so as a result of position terminations. This is not a pleasant situation for anyone involved — those whose positions are terminated, management and co-workers...Terminations are a cold, harsh way to get in line with a lower budget."

He found himself dropped into another hot spot when Ozbun asked him to chair a task force to study the administrative structure of agriculture at NDSU. Christman would say later that he was uneasy about being put into this role only about six weeks into his interim assignment, new to the academic structure and not well acquainted on campus. Being a newcomer with a predetermined, relatively short tenure on campus probably actually made him a desirable candidate for the position.

The task force he headed recommended creating a new vice president for agriculture and university outreach, as well as making campus-based extension specialists answer to the department heads in their discipline, locating extension specialists at research stations throughout the state, and having the outlying centers become true research extension centers reporting to the new vice president instead of the experiment station director. According to an item in *The Forum* of August 18, 1993, Christman said the task force action was in response to public perception that NDSU had diminished its focus on agriculture, and that it should improve efficiency and productivity of NDSU's agriculture efforts.

The plan created some controversy and met with resistance, but after about a month of discussion and a bit of modification a model was endorsed. On October 15, 1993, Ozbun announced the appointment of

Brendan J. Donnelly to the new post of vice president for agriculture.

Christman's interim directorship, originally slated to be for 12 months, would continue until the end of 1994. During that time reorganization and integration of the extension staff would be the major issue. In a December 30, 1994, farewell message to the extension staff he said of his 20 months as director, "It was a time of change and transition. Some of us were affected more than others. The change and transition will continue as extension, as an organization, and those outside forces who have a stake in what we do, define our role."

## Sharon D. Anderson

On November 9, 1994, the lead headline on the Region section of *The Forum* read, "Appointment makes history. NDSU names Anderson as its first female Extension Service Director."

Agriculture vice president Donnelly appointed Sharon Anderson to the post of director of the NDSU Extension Service and University Outreach. "Outreach" had been added to the title, he explained, with the intent to extend resources of the university beyond the traditional areas of agriculture, youth and family science to the people of the state.

Anderson, a North Dakota native who grew up on a Richland County farm, earned B.S. and M.S. degrees in home economics and education at NDSU and a doctorate in education administration at the University of North Dakota. She had previously taught at Mohall before coming to NDSU as a 4-H specialist. At the time of her appointment she was serving as an extension district director and acting as state leader for youth and family programs. During a one-year period while director Bill Pietsch was on a special assignment for the North Dakota University System she had carried out many of the director's responsibilities.

As well as being the first woman to hold the post, she was the first from a family life and youth background rather than production agriculture. *Forum* staff writer Mikkil Pates described the reaction to Anderson's appointment as "mostly positive." However, at an early point in the search process the state Association of Extension Agents had moved a resolution that the director position description should require a degree

in agriculture and previous extension field experience. (The resolution never became a public issue and may have been withdrawn.)

Donnelly was quoted as saying he had "agonized" over the decision because of high quality candidates. Four finalists for the position were interviewed, but it was generally agreed that the final decision was between Anderson and extension crops specialist Duane Berglund. Berglund, a highly regarded agronomist, had tested the extension administration waters before, serving as agriculture program leader and then electing to return to the specialist role.

Anderson's administrative experience as a district director had included agriculture programming as well as other areas.

Her appointment came shortly before the 1995 legislative session, so she was very quickly exposed to a baptism of fire. At one point in the director search Donnelly had recommended delaying the process until after the session. The suggestion was not well received, as the delay probably would have extended the interim director situation beyond two years, and both staff and clientele were getting impatient for a permanent director to be named. The selection process was allowed to continue.

Another early concern was voids in the extension leadership structure, a situation exacerbated by staff cuts and campus reorganization. Anderson named Stanley Ernst director of the extension communication unit, replacing David Rice who had served in an interim capacity after the retirement of James Kenward. Other gaps were filled on an interim basis by Suzanne Fundingsland acting as program leader for human development and Roger Haugen as program leader for 4-H and youth, both on a 40 percent basis. County extension agent Morris Davidson became a part-time district director for two multicounty units as well as remaining on the Grand Forks County staff.

## Studying Extension

In her March 18 "Extension Update" e-mail message to staff, Anderson reported that Governor Ed Schafer had signed the budget bill, and that legislative intent called for special emphasis on maintaining the 4-H program and suggested that the Legislative Council consider a study of extension and the experiment station.

A letter from legislative budget analyst Chester Nelson to Brendan Donnelly on June 12, 1995, said that an organizational meeting of the Budget Committee on Agriculture and Information Services had been called for June 29 and that "The committee has been assigned the study, as directed in Section 11 of House Bill No. 1005, of the services provided by the NDSU Extension Service and the Agricultural Experiment Station, the degree of duplication, the costs and effectiveness, the necessity for continued existence, and options for consolidation." Extension participated in that meeting and in further meetings in September, December and January, presenting detailed information on extension organization, programming and budgeting. At the end of the process, Anderson says, the legislative council showed a much greater understanding of how extension and research meet the needs of the state.

At about the same time, extension was conducting a study of its own. On June 7, 1995, Anderson reported to extension staff, "We have begun the process of conducting our own internal and external study of extension. Mark Winkelman of Precision Marketing asked that a team of extension staff be put together to serve in a response mode to the instruments and materials he is preparing to use in the study."

Anderson called this effort the most broad-based study ever done on extension in North Dakota, conducted by an unbiased agency using a variety of data-gathering methods and surveying a wide range of people. Respondents surveyed included a sample of the general North Dakota population, a sample of agriculture producers, businesses selected at random with additional targeted selections from the agribusiness sector, key leaders and decision makers, and employees of the NDSU Extension Service, the Agricultural Experiment Station, and a sample of other NDSU employees. The overall purpose of the study was to identify citizens' needs and to assess past programs.

The study report, *Internal and External Assessment of the NDSU Extension Service* (January 1996), stated in the executive summary, "A study of North Dakotans' awareness of the NDSU Extension Service revealed significant familiarity and satisfaction with the organization among agricultural producers, the general population and businesses. However, nearly half of the general population was not aware of Extension and its services."

Anderson says many very good things emerged from the study. It showed continuing support for the extension county structure and local presence, a commitment to continued strong youth programming, and reaffirmed program direction and past issues. In many ways the study pushed for continued adoption of and training in technology and indicated that clientele expect extension to lead in the use of the latest technology.

## **Soil Conservation**

The 1995 legislature's budget bill included a mandate that the North Dakota Soil Conservation Committee consider consolidation with the NDSU Extension Service, the North Dakota Water Commission or some other agency. In her October 6, 1995, staff update, Anderson reported, "Duane Hauck and I met with the North Dakota Soil Conservation Committee to brainstorm how that agency may be merged with the NDSU Extension Service."

After investigation and consultation during the biennium, the 1997 legislative session moved the soil conservation budget to the extension service. This is a unique merger, Anderson says, and the only such relationship that exists. She says at first many on the committee were afraid that extension would take charge of funding and that soil conservation would lose its identity to the detriment of soil and water work in the state. During the transition Anderson spent some time at soil conservation committee meetings to help foster an open relationship and kept the budget separate. The effort has paid off with a good working relationship, she says. While the committee's first choice may not have been to merge with another agency, the result has not been detrimental to soil conservation efforts.

## **Leadership Changes**

Changes were taking place in the overall leadership structure at NDSU. In March 1995 Thomas Plough was chosen to succeed Jim Ozburn. Plough did not come from an agriculture discipline, although he had spent some time in the land grant system at Michigan State University. He came to NDSU from the Rochester Institute of Technology in New York, a private institution. Plough was well received on the campus and by the public and was largely responsible for raising the morale of NDSU faculty and staff, who had suffered a period of recurring bad news and unfavorable publicity.

In January 1996 agriculture vice president Brendan Donnelly resigned his post, citing stress and long-term health concerns. Plough announced appointment of Donald Anderson, retired NDSU faculty member and agriculture administrator, as special assistant to the president for agricultural affairs and directed him to start considering the structure of agricultural operations. Plough did immediately remove the outreach function from the vice president for agriculture position, saying it was not fair for that position to be responsible for outreach efforts of the total university.

Only a day after the Donnelly resignation was announced, Plough spoke to a meeting of the North Dakota Ag Coalition in Bismarck, promising a seamless transition to a new vice president and requesting input from the group. In March he announced a search committee to fill the vice president post and that he had consolidated the positions of vice president and dean of the College of Agriculture. A first round of interviews failed to produce a vice president so the search was reopened in September. On May 16, 1997, Plough announced the selection of Patricia A. Jensen as vice president and dean of agriculture, effective July 1.

Jensen, an attorney and graduate of the William Mitchell College of Law, came to NDSU from her position as director of the Minnesota Agricultural Utilization Research Institute in Crookston. She had previously been an assistant secretary for marketing and regulatory programs in USDA, executive director of the Farmers Legal Action Group, director of the Minnesota Legislative Water Commission and deputy commissioner of the Minnesota Department of Agriculture, as well as having practiced law and held other positions in government.

## Consultation Boards

In January 1996 president Plough appointed members to the NDSU Agricultural Consultation Board, replacing a previous board that had been appointed by the state Board of Higher Education in 1973. The purpose of the board was to "...provide an advisory link between the people of North Dakota and NDSU administration to help assure the policies, programs and budgets of the experiment station and extension service address the needs of the citizens." In March Anderson reported in her staff update, "The newly formed Agriculture Consultation Board met last week on campus. This is a group

with diverse interests but are very supportive of the role we play in North Dakota."

This body would soon be replaced, however. During the 1997 legislative session, some legislators, frustrated with the many problems plaguing farmers (notably wheat scab), felt a need to add producer input to agriculture research decisions. On March 26, Anderson said in her extension staff update, "Perhaps the most significant amendment attached to (the research and extension budget bill) is the creation of the State Board of Agricultural Research. This board will be responsible for the budgeting, supervision and policy making associated with the North Dakota Agricultural Experiment Station. They will also provide advice to the NDSU Extension Service."

Some of the specific duties of SBAR included: to determine the causes of any adverse economic impacts on crops and livestock in the state, develop ongoing strategies to provide research solutions, and to maximize the use of financial resources and facilities to generate the greatest economic benefit from research and extension efforts.

Anderson says that during SBAR's first two years the close relationship between research and extension became evident to board members. After working with SBAR the extension leadership team decided that extension should be part of the process, especially in light of the recent integration of campus-based specialists into the academic departments. In her October 6, 1988, update, Anderson said that SBAR and extension leadership had discussed the board's relationship with extension and how to strengthen it in the future. The board voted to pursue language that would place extension under their leadership rather than just in an advisory capacity.

At its January 6, 1999, meeting a subcommittee recommended introducing legislation to include extension oversight in SBAR's responsibilities. The full board agreed to support such legislation. The minutes of the May 14 meeting state that effective July 1, 1999, extension would be a part of the board's duties. The new board would be called the State Board of Agricultural Research and Education. The decision for the "E" in "SBARE" to stand for education rather than extension reflected the wish to take a broad view of research and extension, with extension including its whole spectrum of programs, including youth, family and community development.

Anderson believes the change was a very good move for extension. During the first two years, when extension had almost an informal relationship with SBAR, there was a feeling of being an “orphan” in the whole process, she says.

Membership of the board includes the president of NDSU or a designee, the vice president for agriculture, five persons appointed by the Ag Coalition, five persons appointed by the extension multicounty program units and two members of the legislative assembly. The director of the experiment station, director of extension and state commissioner of agriculture serve in a nonvoting capacity.

## Program Review

In 1999, a program review team was invited to review North Dakota’s 4-H youth development and human development and nutrition programs. Program reviews are often conducted in extension services, but this one was unique because it was a joint review of two programs rather than the usual focus on a single program.

Program leader in human development and nutrition was Karen Zotz, who had come to NDSU in 1997, filling the assistant director position vacated by the resignation of Marge Hamann. Assistant Director for 4-H Youth Programs Jeff Miller had recently resigned, so the leader role was being filled by Linda Crow, long-time 4-H youth staff member and curriculum specialist.

The review committee’s report indicated that the relationship of extension specialists in the College of Human Development and Education (HDE) was conducive to integrated programming, utilizing the strengths of the resident instruction, extension and research faculty. “However,” the report said, “there are continuing issues associated with an academic home for 4-H Youth Development faculty, as well as program development and program leadership for this area of work.”

The committee recommended that extension review the organizational structure, develop mechanisms to assure collaboration in programs, and consider a combined program leader/assistant director for 4-H youth and human development and nutrition. If the two roles were combined into one position, the committee said it would be essential to identify parts of the two roles that could be delegated to assure the success and well-being of the

person in the leadership role. The committee also recommended locating 4-H youth development faculty as a department in HDE.

The two program leader roles were combined, with Karen Zotz assuming the title of assistant director, nutrition, youth and family science and associate dean of the College of Human Development and Education.

The 4-H youth unit was also designated the Center for 4-H Youth Development within HDE with Linda Crow as chair. At this writing (2003) Brad Cogdill, Cass County extension agent, serves as interim chair following Crow’s retirement.

## Costs to Continue

In her December 16, 1998, staff update, Anderson reported that the budgeting process required extension to project costs to continue for the next biennium, which entailed maintaining current salaries, increased costs of operating and other costs required to maintain an organization. This amount, over \$400,000, was not included in the budget but would be replaced with grants and user fees. “Costs to continue” would become a familiar phrase in the months ahead.

A September 13, 1999, message to all extension staff opened, “This is perhaps the most serious e-mail update I have sent to you since I began my role as director in January 1995. It pertains to our current budget situation and future scenarios.” She explained that although some sources of funding, notably grants and partnerships, had increased, federal, state and county funds had remained mostly constant and in some cases targeted to specific programs, taking away spending flexibility. “In addition,” she said, “during the past legislative session, what we call ‘costs to continue’ which includes inflation, past year’s salary increases and other continuing and increasing costs were not funded. And, as of July 1, 1999, more salary increases were given than were funded through the legislative session. This move was made to help raise salary levels of NDSU faculty and staff, and to recognize exemplary performance.”

As a result, she explained, a tighter operating budget was needed, but the bottom line was that salary expenditures must be reduced.

A follow-up message on September 21 addressed questions and concerns, stating, “...let us assure you that we

are on fiscally firm ground. However, our expenses are outpacing our current income and we need to make adjustments to bring our budgets into line by the end of biennium.” She said a long-term approach is to increase the income generated through contracts and grants. Short-term strategies would include reducing commitments to other agencies, reallocating funds from operating and equipment, not filling open positions and redirecting dollars to high-priority program areas.

Minutes of the May 11, 2000, meeting of SBARE show that chairman Jerry Doan indicated the “meeting agenda would address budget issues relating to ‘costs to continue,’ maintenance of core programs and proposed initiatives.” Anderson told the board that extension would meet budget reductions by acquiring more grants, partnering with nearby states, eliminating positions through attrition or retirement, and possibly increasing user fees. Board member Neal Fisher stated that SBARE needed to convince constituents and legislative leaders that agriculture cannot continue reducing research and extension budgets. Maynard Helgaas agreed and indicated the need to insist on support for growth in agriculture.

On April 27, 2001, Anderson reported to the extension staff, “We have received increased core budget dollars that allows us to refill the livestock marketing position and a 4-H youth development position. In addition, we have received new operating monies to strengthen our work with marketing clubs, technology, youth development and other program areas.”

## **ECOP Chair**

The national Extension Committee on Organization and Policy (ECOP) is made up of 15 state extension directors from throughout the land grant system, appointed for three-year terms. Leadership of the committee rotates among the geographic regions. In February 1999 Sharon Anderson assumed the role of ECOP chair, representing the North Central Region.

ECOP deals with issues related to federal budgets and extension programs. During the period Anderson chaired the committee it was looking at ways to broaden national extension efforts, including programs outside of USDA, moving toward family nutrition programs and an “engagement” concept of returning to extension’s roots. Emerging issues included biotechnology and food safety, and the youth at risk effort was changing. On the fiscal

side, states were starting to think about ways to secure more resources through grants and fees for service and about how to get more connected to research grants with an extension component.

During the same period Anderson was a member of ECOP, ag program leader Darnell Lundstrom was appointed to the Program Leadership Committee, an effort that had been organized by ECOP. He chaired the PLC at the same time Anderson was ECOP chair. This was a unique situation, he says, and made it easy to coordinate efforts with the ECOP chair just two offices down the hall.

In a November 8, 1999, message to NDSU extension staff, Anderson noted that her year as ECOP chair was ending and that, “It has been an unbelievable year. I have had opportunities that I never imagined I would have, and I have been involved in conversations that stretched my thinking a great deal.”

## **Hall of Fame**

In 2002 Sharon Anderson was one of 21 individuals from across the United States selected for induction into the National 4-H Hall of Fame. Announcing the selection, Rick Schmidt, president of the North Dakota Association of Extension 4-H Youth Workers, said, “She’s very deserving of this award because of her long involvement in the 4-H program. From her days as a 4-H member to her current position as extension director, she has always worked to improve the 4-H program.”

Her 4-H involvement spanned more than 40 years, starting as a 10-year 4-H member in Richland County who capped her membership by attending a National 4-H Congress and being one of two youth musicians featured with the Chicago Symphony Orchestra under the direction of Arthur Fieldler. She was a charter member of the state 4-H youth workers association and as director was supportive of North Dakota hosting the national 4-H agents meeting in 2001. She was involved in the North Dakota 4-H Foundation for many years and provided leadership to the organization as it moved toward new broad-based youth education opportunities.

The National 4-H Hall of Fame, established as part of the 100th anniversary celebration of 4-H in 2002, recognizes people who have made a significant impact on 4-H and the lives of millions of members.

# Restructuring Extension – County Organization

From its beginning, the cooperative extension concept involved three partners in funding and programming: federal, state and local (usually county). For many years North Dakota followed the traditional pattern of an extension office in every county (actually in 52 of the 53 counties with Billings and Stark counties having a joint office, plus an office located on the Ft. Berthold reservation). Some counties had a single agent; some had both an agricultural agent and an extension home economist; more populous counties might have multiple staff, possibly including youth agents or county horticulturists.

In 1985, this traditional county structure began to undergo some scrutiny. As Director Myron Johnsrud told staff in a July 19 informational letter, “This has been a rather interesting summer so far, with the uncertainty of the Federal budget for Extension and Research and the Governor’s ‘trial balloon’ concerning regionalizing Extension.”

The regionalization suggestion came to light in a June meeting of an interim legislative committee charged with finding ways to reorganize higher education to decrease costs. Governor George Sinner’s office, in the person of Budget Director Richard Rayl, said the legislature should consider cutting the higher education budget by consolidating the 53 county offices into a system of eight regional offices.

According to a June 15 article in the *Grand Forks Herald*, Rayl told the committee that the state’s experiment stations and extension agents account for 13.6 percent of the states budget for higher education. Acknowledging that he did not know how much, if anything, the proposed consolidation would save, Rayl said that agricultural technology changes so fast that individual extension agents can’t keep up to date and

that regional offices might be more helpful. Committee member Robert Nowatski of Langdon opposed the suggestion and rejected the idea that extension agents can’t keep up with changes. “At this point in time,” he said, “farmers need all the advice they can get as cheaply as they can get it,” suggesting that the consolidation would probably result in farmers hiring consultants.

In other press coverage, state senator Donald Moore of Forbes was quoted as opposing the proposal, saying, “The proposed consolidation would weaken the Extension Service program by removing the vital ‘county agent’ first link between farmers and North Dakota State University.”

An Associated Press article in the July 3 issue of *The Forum* reported that extension officials welcomed a review of the system but doubted that the reorganization was possible. Johnsrud was quoted as saying, “We think we’re pretty darn cost-effective. We feel currently we’re organized as best we can be.”

Johnsrud also expressed concern about potential loss of funding from county governments, which provided some 21 percent of extension’s total budget. “That’s a rather substantial sum of money,” he said. “I don’t seriously think counties would graciously follow us into a consolidated system.”

Opposition was also expressed in a *Grand Forks Herald* editorial: “An overzealous budget officer in the Sinner administration has suggested consolidating the 53 county agents of North Dakota into eight regional offices to save money. Budget Director Dick Rayl described his idea as a ‘trial balloon.’ It’s a balloon that doesn’t deserve to fly.”

Gov. Sinner, in a letter to the *Herald* published under a headline reading “The trial balloon is still aloft for

cutting costs of Extension Service,” agreed that extension agents played an important role for the state, and that extension had undergone some changes over the years to become more efficient. But, he said, “It is possible that additional changes are in order. Perhaps a way can be found to continue the same quality service while at the same time reducing the expense to the state.”

Regionalization next came up in Sinner’s 1989-91 budget recommendations, where he again proposed eight regional resource centers for extension. The legislature modified his plan but included \$292,500 for creation of the centers, with funds from the current budget also to be reallocated for the plan.

Director Bill Pietsch appointed a team of extension staff to study the concept of placing specialists at 14 to 18 regional centers, and to recommend sites for those centers.

The plan, unveiled in July, called for 15 regional centers, each staffed with master’s degree level specialists in areas including crop production, livestock production, farm management, 4-H and home economics. Each county in the state was to retain an extension presence in the form of a county extension director with at least a bachelor’s degree. The centers were to serve from one to five counties, based on population. Cass County was the only single-county unit proposed.

Existing county staff were, understandably, concerned about the plan. A list of concerns and questions developed by the North Dakota Association of Extension Agents included the role and responsibilities of county extension directors, the staff assessment process, procedures for “grandfathering” agents for eligibility to apply for specialist positions and the relationship between county offices and centers.

Contrary to the original “trial balloon” suggested to cut costs, the regional concept was projected to cost about 15 percent more than the existing system, largely because of the number of master’s degree level staff that would be hired. Based on the funding available, Pietsch said two centers would open in the next two years, most likely in the southwestern part of the state.

In August, Hettinger and Dickinson were announced as the first towns to get area extension offices. Additional centers would be opened as the legislature provided funding for them, Pietsch said.

The plan would not be implemented, however. Funding for the plan, along with all budgets, was contingent on approval of the tax plan passed by the 1989 legislature. All three elements of the plan (increases in income, sales and gasoline taxes) were referred, and in a December 5 vote all three were rejected. Postponement of the regional centers was one move announced by Pietsch to meet the budget shortfall created by the referral.

Partial implementation took place later, with paired area centers at Dickinson and Hettinger and at Minot and Williston. Other area specialists were in place at Carrington, Devils Lake, Rolla, Valley City and East Grand Forks (a potato specialist shared with the University of Minnesota). Actually, area specialists were not new in North Dakota, with the first area positions created in the late 1970s. These had been located in county offices, at branch experiment stations or in area offices.

A “concept paper” on organization of the NDSU Extension Service prepared in 1992 considered scenarios for structural change to match available funding and program priorities. Possibilities suggested included: redrawing the boundaries of the 1989 restructuring plan to create larger areas, along with informal county clustering; a formal clustering concept with programs carried across county lines and each county staff member having a subject matter responsibility, and adopting a high technology delivery system that would require fewer staff to deliver programs and answer questions.

Governor Sinner’s budget recommendations for the 1993 legislative session (his last budget, as he did not seek re-election in 1992) included a radical restructuring of extension staff, eliminating state funding for county staff and replacing it with eight regional centers run by the state, a system similar to his “trial balloon” of 1985.

The proposal proved unpopular with legislators and the public. At the senate committee hearing on the bill, a spokesman for the North Dakota Stockmen’s Association, lobbyists for the state Farmers Union and Farm Bureau and the director of the state Association of Counties all criticized the plan. No one testified in support of the bill, and the committee voted unanimously to recommend its defeat. It was killed in the senate two days later. Senator Larry Robinson of Valley City said that defeat of the bill would allow extension to restructure itself from the bottom up rather than to have restructuring forced from the top down.

Extension continued to study the restructuring idea. Notes from extension cabinet meetings and information provided to extension staff continued to speak of structuring county operations in nine, ten or possibly 11 program units. Each unit would have at least two offices with multiple staff. All staff in these offices would have responsibility in all counties in the program unit, in the areas of agriculture, human development (including family and youth) and community or economic development. About 30 county offices would be staffed by one person, but extension would make a commitment to provide a full-time professional presence for counties that would pay half the cost to run the office.

The North Dakota annual report to the federal extension service described reorganization that had taken place at the both the field and campus level in 1994. It said, "All counties are now included in one of 10 multicounty program units which range in size from three to eight counties. County extension staff remain in the county offices but work closely with other extension staff within their multicounty unit. Each extension agent has a program emphasis area and carries program leadership for that area within the multicounty unit."

The MPU model was first piloted in unit 2 in north central North Dakota and unit 6 in the southeast, under the leadership of district directors Jay Fisher and Duane Hauck. Fisher recalls that getting started took "some visiting" with boards of county commissioners and working with staff to formalize working across county lines. Advisory councils also became more diverse with the multicounty organization.

Duane Hauck, who has served extension in both field and specialist roles and as a district director and agriculture program leader, calls adoption of the MPU concept a very significant part of the extension agenda. The MPU structure allows continuation of the traditional extension presence in every county, but also provides a greater access to subject matter expertise, with county agents playing more of a specialist role within their MPU and receiving more training within a selected subject matter area. North Dakota is one of very few states that still has a B.S. degree as the minimum requirement for county extension agents, with an M.S. preferred, says Hauck, with a philosophy of being willing to "grow" expertise through additional training.

Extension has adopted a concept of core competencies or skills that all staff need to perform their jobs. The five competency areas include subject matter, communication, information and educational technology, personal and organizational management, and program development and educational design. Subject matter competency is knowledge and expertise in a recognized discipline and the ability to communicate the science and application of the discipline. All county agents are expected to have a general knowledge of either agriculture and natural resources or family and consumer science, plus some basic competence in 4-H youth development and leadership. In addition, each agent will have specialized competence in a specific area, such as cropping systems, livestock systems, human development or nutrition and food safety. Self-assessments are conducted both to help staff determine their professional development needs and to identify what inservice training needs to be provided.

In 1997, the legislative session made changes in the North Dakota Century Code, replacing all references to "county agent" or "county agent work" to "extension agent" or "extension agent work." In addition, all language developed in 1989 indicating extension should move toward area centers was deleted from the Century Code.

According to a base policy established in 1996, the NDSU Extension Service is committed to maintaining an extension presence in all counties if the county provides a minimum financial commitment and a county presence is desired by local interests. The minimum financial commitment includes having the county pay 50 percent of the salary cost for county extension agents and all operating expenses. NDSU pays the other 50 percent of the salaries and all fringe benefits. Operating expenses include office space, travel, telephone, secretarial support and other costs relating to running an office such as paper, copying costs, mail, office supplies, etc.

Hauck speaks of the strong relationship between extension and county government and the high level of understanding about extension on the part of county commissioners. He points out that many North Dakota counties have voted a tax increase to support county extension work while county support has been diminishing in other states. The philosophy of a grassroots driven program has strengthened support at a time when support could easily be declining, he says.

# Restructuring Extension – Integrating Specialists with Academic Departments

Organization of extension service staffs and how they fit into the university structure varies greatly among U.S. land grant institutions. One common, at one time the most common, structure was for extension to function as a stand-alone division within the university with specialists reporting directly to extension administrators. Another structure, the more prevalent one in recent years, is for extension to be either a stand-alone division or part of another college or other administrative structure, but in either case with specialists integrated into academic departments of the university and reporting directly to department heads.

Into the 1990s, campus-based specialists of the NDSU Extension Service operated independently within the administrative structure of extension, an independent division of the university. Specialists carried academic rank and for the most part were officed with or near their counterparts in research and teaching, but they were not a part of the academic departments and did not report to department chairs but to an extension program leader in their discipline.

In agriculture, each discipline (or group of related disciplines) in extension had a section head who was not part of extension administration and did not have budget control. Section heads were mainly involved with program planning and served on the extension program council. They were involved in the hiring process for both specialist and clerical staff and in conducting personnel evaluations.

The director of extension reported directly to the university president rather than to a dean or vice president. The extension professional staff elected members to the faculty (later university) senate. Extension specialists served on standing committees of the senate, representing extension rather than a college.

When Jim Ozbun became NDSU president in 1988, he brought ideas for restructuring the university, including extension. A first change in the agriculture structure was the reporting lines of the extension and experiment station directors from reporting directly to the president to reporting to the vice president for academic affairs. He also favored integration of the extension specialists into their respective academic departments.

In July 1993, Ozbun appointed a task force to review the structure of the NDSU Extension Service and the Agricultural Experiment Station and “Advise him on how the President’s Office could best serve North Dakota’s largest industry, agriculture, and restructure and coordinate NDSU’s Extension Service and Agricultural Research Experiment Station (sic) to most effectively meet the needs of North Dakota in the 21st century.” (From the task force report.)

Chair of the task force was Robert Christman, interim director of extension, and management consultant Vern Freeh served as facilitator. Other members were Virginia Clark, dean of the College of Human Development and Education; C. Colin Kaltenbach, experiment station director at the University of Arizona; Paul Langseth, chair of the agricultural consultation board; Leo Lucas, director emeritus of the Nebraska extension service, and H.R. Lund, dean of agriculture and experiment station director.

The task force convened at NDSU from August 9 to August 12. During that time the group met with administrators, faculty and staff at NDSU, representatives of user groups, and members of the state board of higher education.

Among NDSU faculty and staff providing comments to the task force was a committee formed from the extension agriculture and natural resources group, consisting of Alan Dexter, sugarbeet weed specialist; Roger Haugen, animal scientist; Harlan Hughes, livestock marketing economist; Marcia McMullen, plant pathologist; Darnell Lundstrom, associate director, and Thomas Scherer, agricultural engineer. The committee told the task force that it was not the consensus of the group that specialists should be integrated into academic departments as the existing system produced good working relationships within departments and allowed split appointments for faculty who desired them.

If integration was to take place, the committee said, the role of extension within the university and its unique focus on serving the needs of North Dakota citizens must be preserved. Some of the issues the committee said must be resolved included administrative support for extension programming from department heads, secretarial support for extension specialists, guidelines for split appointments, maintaining operating funds within extension, program planning processes, and procedures for evaluation, promotion and tenure.

Extension Agronomist Duane Berglund also addressed the task force in his role as president of the local chapter of Epsilon Sigma Phi, the extension professional society. He told the task force, "I do not advocate fixing things that aren't 'broke.' We must ask ourselves if the NDSU Extension Service will be improved and more efficient with full integration of our campus-based extension specialist faculty. If this is indeed true then we should move forward, but with some caution." He cited potential benefits of integration including having more faculty involved in extension activities, recruitment of qualified faculty members, influence on applied research, better communication of program efforts and better access to laboratories, equipment and technician help, but cautioned that negatives might include loss of extension identity, conflicts about primary clientele, reporting to several supervisors, forced split appointments, program planning conflicts and evaluation criteria.

The task force written report dated August 12, 1993, carried the rather lengthy title, "Meeting the Needs of North Dakota's Citizens in the 21st Century by Providing Greater Visibility and Access for Agriculture and More Effective Coordination of Research and Extension at the Highest Administrative Level at North Dakota State University," and consisted of four recommendations.

The first recommendation stated, "The research, extension and teaching faculty on campus and the extension and research faculty at the research centers should be integrated in such a way as to encourage faculty and staff to work together most effectively and efficiently." The report went on to explain that the task force felt that for maximum efficiency and productivity on-campus extension specialists should be part of the same structure as research and teaching faculty, located in academic units and accountable to deans and department heads. The rationale cited was that the recommended structure was already in place at most land grant institutions and provides for greater interaction within the faculty and greater opportunities for joint planning and implementation of research and extension programs.

The second recommendation was to continue locating extension specialists at research centers. The feeling of the task force was that both research and appropriate extension specialists should be stationed at the research centers located throughout the state and that these centers should be called research and extension centers and operate through a common administrative structure.

Recommendation three stated, "NDSU should aggressively look for ways and means to most effectively and cost efficiently provide outreach programs which meet the needs of North Dakota citizens and its largest industry, agriculture, in the 21st century." Things that should be explored included accessing non-traditional funds and resources, innovative programming techniques which make maximum use of the latest technology, greater involvement of academic units, faculty and staff from throughout the university and the university system, and joint programming and coordination of programs with other institutions of higher education and other agencies in North Dakota and other states.

The fourth recommendation was: "Establish the position of Vice President for Agriculture and University Outreach (carrying the additional title of Director of the Agricultural Experiment Station and the Director of Extension)." The position would be: "responsible for the Agricultural Experiment Station and the Extension Service funds; responsible for the coordination of agricultural research and university outreach (extension) programs, faculty, staff and administrative services; responsible for recruitment, hire (sic), promotion and tenure of extension and agricultural research faculty; responsible for providing agriculture and extension with direct access to the President's Office; and serve as

member of the President's Cabinet and the President's Council."

The task force recommendations were made public on August 17, immediately touching off controversy, mainly concerning the role of the proposed vice president and a suggested time line that would have an interim vice president appointed by September 15. Ozburn agreed to allow more time for the university senate, president's council and agriculture consultation board to study the proposals. On September 23 the state board of higher education approved a plan to create the post of vice president for agriculture and university outreach. The plan approved called for separate directors of the experiment station and extension service with the vice president responsible for administration of funding for both units.

Ozburn announced the appointment of Brendan Donnelly, director of the Northern Crops Institute, to the post of vice president for agriculture and university outreach on October 15. The appointment was on an interim basis; Ozburn had announced his intention to resign in 1995, so his successor would have the opportunity to select the permanent ag vice president.

Details for integrating extension specialists into the academic faculty remained to be worked out. To this end, a "Fine Structure Committee" was appointed to make recommendations on ways the new integrated system for teaching, extension and research could best function and respond to needs of clientele. Chair of the 12-member committee was Duane Berglund, extension plant science specialist. Other members were Gene Berry, veterinary and microbiological science; Henrik Meyer, entomology; John Dhuvetter, extension area livestock specialist; Thomas Olson, Stutsman County extension director; Margaret Tweten, Grand Forks County extension; Beverly Liebelt, animal science department clerical staff; John Gardner, superintendent of the Carrington research center; Al Schneider, crop and weed sciences chair; Robert Christman, interim extension director, and Virginia Clark, dean of human development and education.

The committee identified five broad areas for discussion: budget management, policy and planning, programs and delivery, academic issues, and communication.

In his final report to vice president Donnelly, Berglund pointed out that how to handle funds and budgets was paramount to most other discussion.

"It was clear that we need to assure people out in the state and on campus where the budget authority exists and not allow co-mingling of certain funds when appropriated for specific use," he said. The committee was also sensitive to county support groups and research center advisory committees that generate local funding.

The committee's general budget recommendations were that state and federal appropriations for extension programs or experiment station research should be managed by the vice president for agriculture in partnership with the appropriate director, while funds generated by service fees and other sources of income should remain in the unit where generated and used for the purpose that generated the income. Funding of department chair appointments should reflect the chairs' responsibilities for research, teaching and extension.

Extension service funds should be allocated from two sources: a central pool of operating funds for statewide extension programming (travel, supplies, printing, etc.) should remain in the extension assistant directors' office; a portion of the operating funds for extension programming should be allocated to the departments for discipline-related use and office management within the department. Printing and media support funds for extension programs and operating funds for extension county and area specialists should remain in the extension assistant directors' office.

In the policy area the committee recommended that superintendents of research extension centers should be responsible for integrating on-going research activities with extension programs in cooperation with extension district directors, including joint appointments in some cases. Joint appointments for faculty should be negotiated among individual faculty, unit heads, and deans and directors, and job descriptions should include any role change or added responsibility. Joint appointments should be identified as major and minor appointments; three-way appointments and 50:50 appointments should be avoided. The vice president for agriculture should have administrative responsibility for faculty with a predominant experiment station or extension appointment; those with a predominant teaching appointment should go through the vice president for academic affairs.

Under programs and delivery, the committee recommended interaction among research and extension faculty to establish communication and collaboration

within the institution and between the institution and the public. Citizen advisory boards should be integrated or combined, with research center advisory boards linked with multi-county extension units and striving for participants interested in agriculture, natural resources, youth and family, and community education. The committee said the role of extension program leaders should be reviewed, and responsibilities should include direction and coordination of the program council. The program council should coordinate interdisciplinary programs with membership possibly including department chairs, area specialists, county staff, research center staff, district directors, state specialists or others under the administration of the vice president for agriculture.

Academic issues were an area of concern among state specialists. The committee said job descriptions emphasizing the unique mission and focus of the land grant university should be completed for all faculty, and that job descriptions should be used as the primary criteria for determination of promotion and tenure. Deans should ensure that all faculty — teaching, research and extension — are represented by their peers on college promotion, tenure and evaluation committees.

The committee recommended that the current extension communication unit be combined with other resources focused on communication within the experiment station to form a single unit under the vice president for agriculture. The committee stressed that the extension mission of the unit should not be diluted and that communication services to counties and research extension centers should be maintained or increased.

Some of the concerns within extension and of some clientele groups regarding integration were that the extension role would be diluted and specialists would become less accessible to county staff and the public as they began reporting to department chairs rather than extension administration. Duane Berglund recalls the integration process as “a little painful for extension.” There was concern that extension interests would be lost within the departments and that specialists might be forced into research roles at the expense of extension

programming. The structures committee was particularly firm that three-way split appointments with responsibility for research, teaching and extension be avoided. Teaching and extension responsibilities are not usually compatible, as a regular class schedule interferes with the ability to do extension programming, and travel involved with extension work makes a teacher inaccessible to students, he says. Extension and research splits usually work better.

Regarding the fear that specialists integrated into academic departments would become less accessible to extension field staff and the public, Duane Hauck, who served as an extension district director and later added agriculture program leader duties, says just the opposite has been the case in North Dakota. He says the integration of specialists was a “very visible change,” with specialists recognized as members of the faculty and creating closer relations with department chairs and department faculty. “Not only have we maintained a state specialist that is very strong and connected but enhanced the level of connectedness of other faculty to extension agents and the people of the state,” he says.

Hauck credits a “strong group” of state specialists who became actively involved in the integration process and made sure that extension did not get lost along the way.

Darnell Lundstrom, agriculture program leader when the integration process took place, recalls some “rocky times as things got straightened out,” with some specialists a bit frustrated, especially in larger departments where department chairs involved with overall management of the department did not seem to have time for extension programming. This demonstrated a need for continued overall program leadership from extension, especially in regard to interdisciplinary programs, he says.

But the process worked well in the end, he says, with North Dakota having “as fine a group of ag specialists as can be found.”

In her e-mail staff update on May 1, 1995, Director Sharon Anderson reported that George Flaskerud, extension marketing specialist, had been granted tenure in the Department of Agricultural Economics, the first extension faculty member to work through the promotion and tenure process since integration.

# Responding to Disasters

Climate extremes and accompanying problems are no strangers to North Dakotans, both agricultural producers and non-farm residents. But the closing years of the 20th Century, starting about 1988, provided an unusual sequence of climatic problems, from severe drought to severe flooding.

## The Drought

The NDSU Extension Service annual report to USDA for Fiscal Year 1988 overview statement included the observation:

*During 1988 the most critical issue was the extended drought, and the NDSU Extension Service reacted quickly and effectively. A drought task force was formed and a series of fact sheets was developed and distributed to aid producers in coping with cropping and livestock problems.*

Actually, extension specialists were gearing up for dry conditions months before spring, when the planting season arrived but spring moisture did not. In the fall of 1987 Soils Specialist Carl Fanning reported the dire results from a statewide soil moisture survey, warning that unless every possible weather event provided optimum moisture the coming crop season would likely bring major problems. By April, when drought started looking even more probable, specialists were seriously involved in getting together information for producers. By mid-May, when the dry weather at planting continued, resulting in erratic crop stands, pressure on specialists and agents was starting to mount.

In a July issue of his "Perspectives" newsletter to extension staff, Director Bill Pietsch said, "Over the past several weeks most of us have spent increasing amounts of time either worrying about or doing something about

the drought. The involvement of the NDSU Extension Service during this time of increasing stress on farmers and ranchers of the state, and the rest of the economy that revolves on agriculture, has been more intense than any I've seen in the past decade."

An article by Lyndon Anderson in *Farm and Ranch Guide* reported that on one day in June county agents and specialists dealing with drought issues received 1,280 phone calls, had 441 office visits, made 86 farm visits, held 41 educational meetings, were on 34 radio and television programs and mailed 3,970 newsletters.

The nature of calls covered a wide range of topics, from weed control, to feed value of weeds and damaged crops, to disaster aid programs and drought stress on gardens and lawns. County agent Dennis Egge commented that some farmer calls seemed to be just seeking encouragement to make it through the drought. The Haylist program available through the Extnet computer system listing hay available for sale received heavy use, though Computer Specialist Dave Rice pointed out that the biggest use was requests for the list. There probably was little hay to offer.

Perhaps the most visible extension effort, however, was surveys of the small grain and row crops to estimate yield potential and the economic impact of the drought. The surveys were conducted by a drought task force made up of seven plant scientists and four economists, with additional support from NDSU agriculture. Extension became the primary source for information about the drought impact for the news media both locally and nationwide and for decision makers, including North Dakota's congressional delegation. For example, Extension Economist Arlen Leholm told of receiving a call from Senator Kent Conrad requesting information for a

meeting with Secretary of Agriculture Richard Lyng. The NDSU task force was able to respond in about an hour.

“We did a quick estimate and said the state would suffer a loss of \$2.7 billion,” Leholm said. National media including the *New York Times*, *Washington Post*, *Wall Street Journal* and others called for information. Leholm was interviewed live on ABC Television’s Good Morning America. A front page story in *USA Today* quoted County Agent Roger Martin, and many specialists, agents and communication staff fielded questions from national and international media.

An updated survey about two weeks later raised the economic loss projection to \$3 billion, including a multiplier effect and livestock and row crop losses. Agronomist Jim Helm reported that statewide yields, including abandoned acreage, would be about 12 bushels per acre for wheat, 15 bushels for barley and slightly above 20 bushels for oats, along with quality reduction.

A month later, losses continued to mount as row crops were hit hard by continuing drought, with losses estimated at \$31.7 million for corn and \$57 million for soybeans. Other row crops also suffered, although, ironically, projected revenue for dry beans actually increased because of sharp price increases brought on by the short crop.

Projections developed from the surveys were made public at news conferences held on the campus. Some voices at NDSU were critical of this method and extension’s high profile, apparently believing that it was poor public relations for NDSU to be the bearer of so much bad news. In reality, extension established a reputation for credibility and reliability that lasted for many years.

Information generated by the extension drought task force helped bring about \$411 million in federal drought assistance. Said Senator Conrad at the time, “Their rapid assessment of the direct effects on farmers and the indirect effects of the drought on the entire North Dakota economy helped me convince my colleagues of the need to provide greater relief to those hit hardest by the drought. The extension service did a superb job.”

In his September “Perspectives” newsletter, Director Bill Pietsch, commenting on an upcoming statewide program re-direction conference for extension staff, said, “I’m looking forward to a very special program as we take

time to reflect on what has been a monumental spring and summer for each of you. I’ve never heard so much positive feedback about the special role we’ve played in helping people cope with the many complex impacts of the drought.”

One result of the re-direction conference was described by Pietsch in his October newsletter: “The ‘big rock’ of our after-the-drought program effort will be delivered under the title of Extension Focus.” It was to involve a series of 25 multi-county educational events in key locations throughout the state along with other program efforts, supported by a set of pertinent educational materials all produced with a common theme and appearance. “I like to envision the complete set of educational materials we’ll release looking like the new line of cars a manufacturer would release for a new sales season,” he said.

New publications were developed on a range of topics, from parenting during stressful times, community survival and managing family finances to production topics like local crop input strategies, effects of drought on rangeland, alternative livestock feeds and marketing alternatives.

A 16-page tabloid newspaper dealing mainly with drought issues was also produced and distributed throughout the state. In what was called the most ambitious use of television in NDSU extension history, a series of four half-hour programs offering a wide variety of information was broadcast statewide on the KX Television Network.

The Extension Focus effort was planned to involve no more than 25 percent of extension’s human and financial resources, meaning 75 percent of efforts would continue to support continuing education and other programming.

The “after-the-drought” designation proved to be a bit optimistic, as dry conditions continued into 1989. The Fiscal Year 1989 report to Extension Service USDA stated:

*The continuing drought in the Great Plains again influenced the programs of the Extension Service in North Dakota. While not as severe or widespread as the 1988 drought, the continued financial and emotional stress on farm and ranch operators, and interdependent communities provided many opportunities for Extension to provide programs of high impact on North Dakotans.*

Two consecutive summers of drought had a major impact on the state's economy and placed many families under considerable stress. From July 1988 to June 1989 every county and area extension staff member participated in programs designed to lessen the impact on children and families. Programs included a four-part video series entitled "From Farm to Families" that received an award from the North Dakota Mental Health Association.

## The Scab Epidemic

The drought ended with the end of the decade. More normal weather patterns and crop yields seemed to be returning, but then some areas were faced with a new problem — too much moisture. A story in the June 24, 1993, issue of *The Forum* carried the headline, "N.D. farmers worry about soggy fields." Staff Writer Suzy Frisch described heavy rains adding up to two inches of water to already drenched fields in southeastern North Dakota while the Bismarck-Mandan area was hit by strong winds, heavy rain and hail.

In general, however, the region's crops looked promising. Wheat and barley stands were good, and farmers expected bumper crops. But unknown to most, excessive July rains along with heavy fogs and dews favored an unexpected plague, *Fusarium* head blight, also known as scab. The scab epidemic spread in a region from South Dakota to Manitoba, catching farmers by surprise and causing great alarm when they found grain heads to be empty or moldy when harvest started in August. Extension pest reports and news releases had issued warnings of scab infection in July, but producers and millers were lulled into false security by the lush green appearance of the grain crop and early predictions of record yields.

*Fusarium* blight was certainly not unknown. The fungus had caused severe damage in grain-producing areas of the world many times, and isolated outbreaks had occurred in North Dakota before, as recently as 1986, but the region had never experienced anything this widespread before. Yields and quality were severely damaged by the scab fungus, but the greatest concern in 1993 was the high incidence of vomitoxin, a byproduct of the *Fusarium* mold, in the diseased grain.

As the scope of the epidemic became known, the regional news media started to report the situation. An article in the August 14, 1993, issue of *The Forum* by Staff Writer Mikkel Pates carried a banner headline, "Valley grain diseased," with a subhead stating, "Early

tests indicate high level of vomitoxin." Pates quoted Extension Plant Pathologist Marcia McMullen saying, "Right now it's paralyzing marketing of grain in the region." McMullen would become a major source of information on scab and the epidemic and a leader of the massive educational effort that would follow.

Grain companies would not buy any wheat that tested above the Food and Drug Administration "level of concern" of 2 parts per million vomitoxin. McMullen said in the Pates article, "The elevators aren't sure what to do with it. They have to meet requirements set by their purchasing companies — people like Cargill, Archer Daniels Midland, Peavey and Conagra." She said that many farmers would harvest grain and store it, waiting to see if it could be cleaned enough to be acceptable to buyers or if buyers would return to the market after the initial panic.

The FDA level of concern for raw grain was later dropped, but a guideline of 1 part per million for finished flour products was maintained. Wheat with vomitoxin damage could then be sold, but usually at a heavy discount. Producers often had to sell at livestock feed prices and sometimes had trouble selling for that purpose. For barley, the malting industry adopted a standard of less than 0.5 parts per million vomitoxin in malting barley, severely impacting barley growers in the region.

Howard Casper of the NDSU toxicology laboratory, the only lab in the region equipped to accurately measure vomitoxin, reported a high incidence of vomitoxin in both barley and wheat. Vomitoxin was known to cause illness in swine if used for livestock feed, but little was actually known about what levels of infected grain could safely be fed to swine and if it could be fed safely to ruminant animals.

When the 1993 season was tallied up, grain producers in North Dakota, Minnesota, South Dakota and Manitoba had suffered an estimated \$1 billion in losses from yield and quality reductions, making it one of the greatest losses to any plant disease in a single year in North America. Some farmers did not survive the devastating losses. The survivors hoped to avoid future outbreaks, but the general belief was that the year had been a fluke and that a recurrence was unlikely. Unfortunately that was not the case, and scab continued to be a major problem in the region for years to come.

The enormous scope of the 1993 outbreak stimulated an extensive educational response involving a collaborative

effort among public and private agencies, as well as pressure for concentrated research efforts to find ways to manage the disease.

A multidisciplinary extension Fusarium head blight task force was established in North Dakota. A similar working group was formed in Minnesota. Darnell Lundstrom, the NDSU Extension Service program leader for agriculture and natural resources, credits Marcia McMullen for providing "...strong leadership working with research, working with farmers, working with breeders, working across state lines to develop management guidelines."

(In 1994, McMullen was selected by the National Association of Wheat Growers to receive the group's Excellence in Extension award. She was nominated by grain producer groups in both North Dakota and Minnesota for coordinating the educational effort on scab.)

Scab has continued to be a part of extension educational efforts every year since 1993. Some years have been less severe, but there have been additional severe outbreaks, and the disease has appeared in new areas as the infection moved farther west. Extension agents and area specialists in the north central and northwest counties of North Dakota found themselves engaged in the scab battle, along with their counterparts in the northeast, where the disease first became severe.

McMullen believes that the continuing scab problem has contributed to changing the face of extension. County agents and area specialists, along with state specialists, have learned to quickly respond to disasters. This disease has changed the lives of extension agents, she says, "...making better people of them, but it's difficult." The difficulty involved not only the workload of meeting a massive demand for information but also the stress of supporting financially stressed farm families facing what was in many cases the last straw.

The extension response has included many new or revised publications, a host of newsletters and news media releases, and vast amounts of information on the Internet. Areas of emphasis have included identifying grain varieties tolerant or resistant to scab, crop selection, crop rotations, tillage options and fungicide use. Agricultural engineers including NDSU Extension Specialist Vern Hofman have worked to develop methods to apply fungicides to grain heads most effectively. Animal scientists have done feeding trials with

vomitoxin contaminated grain, Cereal scientists have done milling, baking and brewing studies with infected grain. And plant breeders continue trying to develop acceptable varieties that are resistant to scab.

The continuing situation in North Dakota and Minnesota coupled with Fusarium outbreaks in other parts of the United States had focused national attention on the disease. Formation of a National Fusarium Head Blight Initiative in 1997 led to expanded research efforts and funding for the initiative from USDA, expanding the state and regional programs of research and education that had sprung from the 1993 disaster.

In 2003, producers and extension educators are more knowledgeable about scab, there are some more tolerant varieties available, more fungicides are available, there is more crop diversity, and producers are more aware of disease and pest problems and more interested in good crop management. But, as McMullen wrote in the December 1997 issue of the journal *Plant Science*, "We cannot control the weather; we cannot expect a large shift in tillage trends; and we will always grow large amounts of wheat and corn in the United States. We must search for other solutions for managing scab."

## Orange Wheat Blossom Midge

Wet soils and wet springs leading to delayed planting were also responsible for an insect infestation. According to Extension Entomologist Phil Glogoza, there was no documented economic infestation of the orange wheat blossom midge in North Dakota prior to 1995. But, as described in a report prepared by ag program leader Darnell Lundstrom, problems started to emerge in 1994.

Area Extension Agronomist Terry Gregoire did an informal survey in northeastern North Dakota, checking fields from Rolette County to Foster County and east to the Red River Valley. He found some fields along the Canadian border with economic infestations of the midge. South of there midge larvae could be found in small numbers, but the observations were enough to suggest a potential problem in the northern counties. Since the midge had never been an economic problem before, it was difficult to generate farmer interest about the potential problem.

In 1995 planting was very late in the northern counties, meaning grain crops would be heading and most vulner-

able to midge infestation at the time of peak midge activity. Gregoire reported only about 10 percent of the crop was heading by July 10, or early enough to escape most midge activity. He estimated losses of about 7 million bushels of grain in Ramsey, Nelson, Benson, Rolette, Towner and Cavalier counties. Ramsey County had an estimated loss of 25 percent. Losses in individual fields ran as high as 60 percent.

Extension's effort to inform producers, pesticide applicators and crop advisors about the midge had started well before the planting season. Information, much of it borrowed or adapted from Canadian sources, was presented at winter schools, crop clinics and meetings; in the Crop and Pest Report newsletter; on the Data Transmission Network (DTN); in the news media and on farm and plot tours by state and area specialists and extension agents in the affected area.

In 1996, delayed planting because of wet weather and overwhelming populations of midge larval cocoons put almost 2 million wheat acres at risk in North Dakota. This time growers were aware of the potential problems and responded by using field monitoring, growing degree day information and treatment thresholds to decide what course to follow. As a result, only 40 percent of the threatened 2 million acres was treated with insecticide, saving growers treatment costs and avoiding the environmental effects of insecticide.

Extension efforts on coping with the orange wheat blossom midge became more routine in following years, with some variation. The affected area expanded to the west and south. In 1998 area crop protection specialist Janet Knodel reported that some infestations were more persistent than usual, with populations staying high longer, and that the pest was more mobile, moving from fields where they emerged to other fields where conditions were more favorable.

In the March 5, 2000, edition of the *Minot Daily News*, staff writer Jerry Kram did a series of articles on NDSU extension and research efforts. In an item titled "Extension is NDSU's front line," Director Sharon Anderson used the orange wheat blossom midge effort as an example of how quickly extension can respond to a new or emerging problem, with state and area specialists, researchers at research extension centers and extension agents all cooperating to get information to growers. "We got producers involved at the very beginning. Things were amazingly fast," she said.

## Winter and Flood – 1996-97

The winter of 1996-97 started early, with a major snowfall covering most of the state on November 5. The first official blizzard of the winter struck northeastern North Dakota on November 17, with most of the state receiving heavy snow from November 17 to 20 and again November 23 and 24. Another blizzard covered most of the state on December 16-18. A total of nine blizzards struck somewhere in North Dakota before the winter was over. Fargo would receive a record 117 inches of snow, Bismarck nearly 102 inches (also a record), and Grand Forks over 98 inches. Wind chills were calculated at between 50 and 80 below eight times during the winter.

On January 27, Sharon Anderson commented in her e-mail staff update, "January has continued to provide adequate stress to everyone..." She reported that many extension staff had provided information and help during the snow emergency situation, done media work, gathered information from producers and offered specific assistance to citizens requesting help. "I am afraid there will be long-term implications from this much snow and cold," she said.

On January 12, President Clinton declared a major disaster in all 53 North Dakota counties and ordered federal aid to supplement state and local snow removal.

Extension specialists from many disciplines prepared information for the news media, in printed circulars, and for use by county staff, and virtually all of it also appeared on the NDSU Extension Service Web page, along with links to other sites providing emergency information. Topics of emergency publications ranged from planning an emergency food supply to checking for ice-plugged sewer vents and safe use of alternative heating sources. With livestock producers being hit especially hard, a long list of circulars under the titles of "Cattlemen Coping with Winter" and "Dairymen Coping with Winter" were prepared and distributed. Topics included hay quality, cold weather and bull fertility, consequences of underfeeding beef cows, critical buying and selling decisions, buildings and facilities, and weather-related mastitis problems.

Even as extension and the state struggled with the severe winter, it was apparent the spring snow melt was going to bring flood problems. Extension started getting into flood emergency mode in February, as communication and subject matter specialists started gathering

materials on flood preparation and prevention. New or updated publications on sandbagging for flood control, sump pump questions, and steps to reduce flood and water damage were prepared and printed, including other agencies reproducing copies for their own use.

Extension's "Coping with Floods" Web site went on line February 20, containing NDSU information along with links to other universities, FEMA, Red Cross and other agencies with flood related information. The site provided immediate information to county extension staff, other agencies and the public. In April, when the waters started to rise, the site was getting about a thousand hits per day.

Rivers and streams over much of North Dakota overflowed their banks, including the Knife, Heart and Cannonball rivers in the Missouri River drainage and the Souris River. The major flooding, however, struck the Red River Valley, including rivers flowing to the Red like the Sheyenne, Wild Rice, Maple, Goose and Forest.

Problems on the north-flowing Red River started on the south end, at Wahpeton, where a flood crest of 19.2 feet was reached on April 4. The respite from rising water was a short one, however. On April 5 a major blizzard struck the state. In many areas the storm started as heavy rain, then changed to an ice storm, and then to a blizzard with heavy snow, adding to the already unprecedented quantity of water trying to make its way to the channel of the Red. A second flood crest hit Wahpeton on April 6.

Governor Ed Schafer issued a statewide disaster proclamation on April 6. President Clinton proclaimed a federal disaster in North Dakota the next day.

For extension, the focus changed with the April 5 and 6 blizzard, as large areas were without electric power because of downed power lines. Extension immediately distributed information to help residents determine if stored food was still safe, conserve heat in the home, and use portable generators safely. Some of this information was quickly accessed from the North Central Region Extension Disaster Education Network.

On April 11, extension agents and state specialists began conference calls to discuss what research needed to be done, what information needed to be developed for the public, and how counties farther north could prepare for the approaching flood. As cleanup began in the south end of the Valley NDSU developed a checklist

on cleaning flooded or water-damaged homes, because a 60-page booklet on the subject available from other agencies was overwhelming to people in crisis.

Collaboration with other states was vital, as North Dakota obtained copies of publications and video tapes from Kansas, Minnesota and other states. When the Wilkin County, Minnesota, office in Breckenridge flooded, the county staff shared space with the Richland County staff in Wahpeton for 18 days. Working together, the two staffs distributed 1,300 packets of cleanup information and newsletters about flood-related agricultural issues to 1,200 farms.

In March, in anticipation of the flood, the Cass County extension office sent packets of flood preparation information to all mayors, auditors, township board members and pastors in the county. The Cass County staff played an important role in the Community Response Team that included FEMA, Salvation Army, Red Cross, Community Health, church groups, Social Services and others to respond to community needs.

The flood crest moved north, with the Red cresting in Fargo on April 18 at a record 39.64 feet. The Fargo-Moorhead area was threatened by overland flooding as smaller rivers and drainages could not handle the flooding. A massive diking and sandbagging effort held, with serious flood damage limited to localized neighborhoods.

In the Grand Forks area flood waters overwhelmed the dikes and flooding was widespread. Many residents, including three of the 10 county extension staff, had to evacuate their homes. The flood disaster was exacerbated by fires in the flooded downtown area. FEMA declared Grand Forks the worst per capita disaster in U.S. history.

The extension office in Grand Forks was the first county office to reopen to serve the public. The county staff immediately used radio to deliver flood recovery information. For nearly three weeks they were on KCNN radio three hours per day taking call-in questions, with the station often replaying the programs on tape. The staff also worked with the local newspaper, other radio stations and the local television station to get information to the public. They worked with the National Guard to distribute cleanup information as people were allowed to return to their homes, displayed informational posters in public places, and distributed information at the recovery center and in business places.

In Traill County, extension distributed packets of information at a shelter for Grand Forks evacuees at Mayville State University residence halls. An NDSU team including an extension engineer, food safety specialist and family science specialist also spoke at this shelter.

Farther north, extension agents from Walsh and Pembina counties reached farmers in their counties and Grand Forks County with meetings and radio programs on farming after the flood. The Pembina County office was the county's emergency operations center with an extension agent as the spokesperson. The agents used Internet access to keep the sheriff and National Guard posted on weather reports and flood stage information and provided information to the news media. After the initial crisis Pembina County extension organized a public meeting where FEMA, EPA, Red Cross, Job Services and extension provided flood recovery information.

From NDSU, information on flooded cars and equipment, safety during cleanup, flood-related fraud, preserving important papers, assessing structural damage and other topics was e-mailed to North Dakota and Minnesota extension agents. NDSU apparel and textiles faculty trained extension agents via conference call and helped develop fact sheets on cleaning and disinfecting.

In April the extension family science specialist developed "What About the Children," a package for guidance counselors to use with children in their schools and evacuated children attending new schools. As children's needs became understood, the Grand Forks, Walsh and

Pembina county agents worked with the Northeast Human Service Center, Lutheran Social Services and Northwest Mental Health to develop "Children, Schools and Disaster Recovery," a notebook distributed to K-12 teachers that included self-care ideas, parent resources and hands-on activities for children.

Extension engineers presented information about wood moisture meters and the importance of drying a home before rebuilding to area homebuilders and lumber dealers. A fact sheet about ventilating and drying homes was also developed. With continuing indoor air quality problems, North Dakota and Minnesota specialists collaborated on mold seminars.

The stress mounted for all those affected by the flooding, including extension staff. In May, a team from the University of Florida helped North Dakota and Minnesota extension staff, school counselors and department of agriculture staff cope with their stressful experiences and think about the future. Extension collaborated with the North Dakota Survival Task Force to sponsor "Overcoming Stress During Disaster" meetings across the state.

In 1998 the NDSU Extension Service flood education group was selected to receive a USDA Secretary's Honor Award.

# Adopting and Using Technology

The NDSU Extension Service is a heavy user of technology to distribute information and educational materials, including the Internet, the World Wide Web, interactive video and satellite technology. Getting to the present point has been a long process of adopting developing technology, integrating it into existing delivery systems and trying to stay at or near the cutting edge.

The first venture into technology was with AGNET, the Agricultural Computer Network. AGNET started out in 1975 as a pilot project in Scottsbluff, Nebraska, accessing a central computer through terminals. From 1975 to 1977 terminals were available only in a few Nebraska county extension offices and university experiment stations. In 1977 the leaders of the AGNET project at the University of Nebraska submitted a proposal to the Old West Regional Commission to fund a regional project in the Old West states of Montana, Nebraska, North Dakota, South Dakota and Wyoming.

At a time when computers were mainly regarded as large number crunchers used to process research data, the originators of AGNET believed that a system could be designed to make computer technology useable by people with no previous knowledge of computers. AGNET was accessed by typewriter-like terminals that connected to the central computer via telephone. The terminals were portable and could be used anywhere an electrical outlet and telephone were available.

In North Dakota AGNET was based in extension agricultural economics. The first AGNET manager was Arlyn Staroba; Jerome Johnson of the agricultural economics faculty was research advisor; Wallace Eide, livestock specialist, was the extension advisor.

Staroba died in a traffic accident on New Years day, 1981. Eide volunteered to be an interim manager for AGNET and filled in until July, when David Rice assumed the role. Eide later became a computer applications specialist and served as an extension district director before taking the position of director of the Institute for Business and Industry Development (IBID).

AGNET was regarded as a management tool for agriculture and most of its software was “number crunching” programs. NDSU specialists were very active in creating programs for AGNET, including CASHRENT by Billy Rice, COWCOST by Wally Eide, PLANTAX by Tommy Reff, and MARKETCHART by Doug Anderson, Hugh McDonald and Norman Toman. Eide recalls that a survey of producers who used AGNET to formulate least cost rations reported total savings of about \$7 million in feed costs.

The system was also used as a communications tool. The AGNET newsletter of July 1979 tells about using “electronic mail” to send message files from one terminal to another. “While the program doesn’t replace telephone communication or the postal system, it is a valuable supplement. It can save on the cost and frustration of placing a long distance telephone call only to find your party is out, and it takes the worry out of losing things through the mail.”

NEWSRELEASE was used to disseminate news stories, users could obtain market information, and electronic conferencing was available via AGNET.

All state and county offices in North Dakota had AGNET terminals by 1982, used for file transfer and electronic mail as well as for problem-solving software. Rice says that this terminal-oriented beginning was a good stepping stone for microcomputer use in extension.

## The Microcomputer

The May 1980 AGNET newsletter commented on the “revolutionary” idea of microcomputers being marketed for private use and issued cautions about the costs and limitations of the emerging technology. Micros, the article said, can do word processing, are useful for record keeping systems, and can be hooked up to act as a terminal with a larger computer system such as AGNET. “They do have limited applications because they lack the memory, speed and storage capacity of the larger computers. In brief, they are the first glimmer of the future of home computers.”

The advent of personal computers suggested that the role of computer technology was changing, with information technology becoming as important as data processing. In a July 15, 1983, message to extension staff, Director Myron Johnsrud announced that in response to interest expressed by both staff and clientele in the area of microcomputers and computer technology, an electronic technology specialist position approved by the state legislature was being activated effective July 1, with Wally Eide initiating the role on a temporary basis. He also announced that electronic technology functions would be placed in the agricultural communications unit, reporting to Assistant Director for Communications F.C. “Chuck” Humphrey.

At the same time, the standard microcomputer system to be supported by NDSU extension was announced to be the Personal Computer manufactured by International Business Machines (IBM) along with a combination of IBM and non-IBM components. Upgrading from the AGNET system would be funded with county, state and federal funds, with cost sharing of \$2,000 in state and federal funds toward purchase of microcomputers by counties. Standard packages of software would be provided through state and federal funds.

Through the NDSU bid, machines “For installations where a single microcomputer will serve as the AGNET terminal, for stand alone problem solving computations, as a data storage and management device, and as a word processor” consisted of a central processing unit with 64K RAM and two diskette drives, an expansion card with an additional 256K RAM, a 12-inch amber monitor, modem and printer and cost \$3,609.45.

Arlyn Staroba had purchased extension’s first microcomputer, an Apple III. According to Eide, it “...sat in a corner, because we had nothing to run on it.” However,

an increasing volume of calls and requests for information involved personal computers. Rice said he was getting questions from AGNET users about microcomputers and interfacing them with AGNET that he could not answer. He realized then that the future lay with the microcomputer.

Rice encouraged the extension agricultural economics section to get involved with microcomputers and prepare management programs for demonstration. Section members were first responsive to the idea, but then were led to believe that it would take years of training to become competent in microcomputer use. Rice’s attempts to persuade them otherwise failed. A proposal to purchase microcomputers to be paid for from fees for clientele workshops was also rejected.

Rice purchased his own Radio Shack microcomputer and began collecting agricultural software for it and the AGNET Apple III. Farm Management Specialists Tom Reff and Billy Rice obtained Apple software from the University of Minnesota, and Dave Rice was able to obtain programs from several other universities. Extension’s first real microcomputer training was conducted at the North Dakota Agricultural Association trade show in 1982, with demonstrations on basic programming, word processing, data base management, farm accounting and electronic spread sheets. North Dakota extension also co-sponsored a microcomputer workshop with the University of Minnesota in January. Evaluations from participants were favorable but indicated a desire for hands-on training.

In 1983, microcomputer training was gradually becoming accepted by extension staff. In Rice’s words, “The individuals who wanted us to believe you needed a PhD in computer science to operate a microcomputer were much quieter this year.”

## Clientele Training

Farmers and ranchers were considering purchasing microcomputer systems but had very little information to help them make purchase decisions. Extension started hands-on microcomputer training for clientele in 1983, when Johnsrud was persuaded to advance funds to purchase a training bank of six Apple IIe and six Radio Shack Model 4 computers plus one Zenith IBM compatible machine. The Apple and Radio Shack computers were chosen because of their popularity with clientele.

The first workshops, presented by Eide, Rice and Agricultural Engineer Harvey Hirning, were intended for clientele just considering buying a microcomputer system and provided 14 hours of instruction over a two-day period. Sessions included possible uses of microcomputer systems and presentations of various software packages and applications. Hands-on training included booting up the computer and using DOS commands, some BASIC training and using electronic spreadsheets and database managers.

Clientele workshops were held over a 10-year period. Dave Rice was joined by Computer Specialists Rhonda Conlon and Andrew Swenson to provide training on a variety of topics and software, including farm accounting and financial management, electronic spreadsheet clinics, database management, LOTUS, FarmPlan, WordPerfect and Quicken. Fees charged for the workshops paid for the training equipment, which was also used for extension staff training.

Over the period, nearly 5,200 participants received training.

An Electronic Technology Task Force appointed by the director in 1987 was charged with allocation of special funding by the state legislature for computer, video and other electronic technology purchases and setting distribution policies for this equipment. The five-year plan developed by this group noted, "Computer technology will serve as the common link among many of the information delivery systems being placed in the NDSU Extension Service. This technology offers extension staff the tools required for more efficient office management and improved delivery of educational programs and information. Microcomputers are now available in every extension office."

Extension used the AGNET system for electronic mail and file transfer for about 10 years, until November 1987. With this system, more than 5,000 electronic mail messages and 10,000 news stories were transmitted each year at costs ranging from 41 cents to \$1.31 per message. Computer services had considered moving to a microcomputer managed system for several years as a cost saving measure. When a 40 percent decrease in the AGNET operating budget was announced in April 1986, efforts turned toward creating an in-house electronic mail and file transfer system.

The system developed by Rice and programmer Roger Egeberg was called ExtNet and was hosted on an IBM-

PC/AT compatible microcomputer with 4 MB of RAM and 72 MB hard disk drive. The operating system was a version of UNIX. The system was upgraded several times in the years to come.

E-mail quickly became a standard tool for both campus-based staff and county and regional offices as a convenient means to correspond with colleagues and became increasingly valuable as a way to disseminate information. Clientele began to use e-mail to contact specialists and agents with questions, and specialists used list servers and other means to contact specified audiences.

News and information releases from the agriculture communication unit had been available electronically since the AGNET days but were accessed mainly by county staff and a limited number of clientele. The traditional news dissemination method, a weekly printed "packet" of items, continued to be mailed to media outlets. As both print and broadcast media began to adopt computer technology, efforts were made to provide information in faster and more convenient ways.

An early attempt initiated by Departmental Editor Barry Brissman was to offer media the weekly packet on a computer disc. This allowed the media to use NDSU items without having to keystroke them, saving publishers time and money and reducing introduction of typographical errors. It offered little cost saving for extension, however, because the discs were usually mailed along with a copy of the paper packet.

The next goal was to provide releases via e-mail, with the objective of eliminating producing and mailing hard copies. This effort was successful but in many cases slow to be adopted. Many media outlets were either lacking the technology or the know-how to use the electronic version and continued to ask for the weekly hard copy. The weekly mailing list did continue to shrink, however, resulting in substantial cost savings.

It took a near disaster to complete the process.

In June 2000, the Fargo area was hit with heavy storms that dropped 7 or more inches of rain in a matter of hours. Considerable flood damage resulted, including on the NDSU campus. The campus infrastructure was badly damaged, and the agriculture communication unit, located in the basement level of Morrill Hall, was disrupted. For most of the summer the only convenient way to send the weekly news was via e-mail. When things returned to normal, the e-mail distribution was

going so smoothly, with few or no complaints from the media, that the decision was made to drop the hard copy mailings. An annual expenditure of \$20,000 was cut by at least 75 percent.

Agriculture news releases had also been available on the World Wide Web since 1997. The Web was also the means of distributing illustrations and graphics to accompany news releases and columns, and the technology was also used to distribute sound bites for radio stations to complement print stories.

## Entering the Web

The Internet is now well known as a vast repository of information of varying quality and utility. Making this resource available to the public required a means of finding and accessing information. This means became the World Wide Web, a name coined in 1990 when the first real hypertext protocol was written.

North Dakota extension first joined the search for access to information via the Internet with the Gopher information system. Gopher was basically a document viewing and retrieval system created and developed at the University of Minnesota in 1992. Extension computer services provided some training on searching Gopher (with a system named "Veronica") and access to some NDSU information was placed on the Gopher network. The Gopher experience served as a precursor to the World Wide Web interface.

Extension computer services started testing the Web, which developed as a conglomerate of technologies including File Transfer Protocol, Gopher and others, in 1994. Bob Innes, Rhonda Conlon, Roger Egeberg and Dave Rice developed a prototype and experimented with putting a Web page together. The first NDSU Extension Service site was linked to USDA in June of 1995. The developers remember the original page as "bare bones," text only with no graphics capability, consisting of weekly news releases and some fact sheets and publications, basically what had been on Gopher.

Dave Rice, acting as Web master, started putting new extension service circulars and bulletins on the Web site, with all new and revised going on immediately with older publications modified for the Web as time permitted. He became full time Web master in 1996 and started expanding efforts, including more integration of NDSU research onto the site.

The Web quickly became a major outlet for NDSU agriculture information, reaching audiences nationally and internationally as well as North Dakotans. In 2002, the site received 10,189,769 successful requests for information from NDSU extension publications on the Web, up from 4,339,262 "hits" just two years earlier. The 2002 statistics indicated that most-requested subjects included gardening and landscaping, food and food safety, and pest control and pesticides. Numbers of requests for agriculture and non-agriculture topics are roughly equal.

## Distance Education

The 1988-92 five-year plan prepared by the Electronic Technology Task Force noted that distance learning refers to the delivery of educational programs (voice, video and data) by satellite, fiber optic cable or television and that "NDSU Extension Service wants to be a leader and an active participant in using these new developing technologies to deliver its educational messages to the residents of North Dakota."

The task force recommended that a comprehensive statewide system of telecommunication be established to serve the state's distance learning needs and expressed a concern that a number of different agencies and institutions appeared to be developing separate plans for delivery systems.

In his August 1990 "Perspectives" newsletter to extension staff, Director Bill Pietsch said, "A major innovation in educational technology will become a reality for the people of North Dakota later this month. That's when we'll 'light up' the first phase of our two-way interactive video system. In November, the entire North Dakota University System (except Bottineau) will be 'wired' for sight and sound."

The Interactive Video Network (IVN) uses cables much like regular telephone lines to transmit audio and video. The first priority of the IVN system is university system credit courses, but when available the system has also been used for extension education. For example, IVN was used when the wheat scab concern was at its height in 1994, allowing producers and agriculture professionals to have scab questions answered by NDSU faculty. Master Gardener program training has also been delivered via IVN.

Satellite technology is another means extension uses for distance education. The first major effort involving satellite delivery was the statewide wheat school organized by Crop Specialist Jim Helm in 1995, using the Prairie Satellite Network in cooperation with public schools. Through the efforts of NDSU agriculture communication electronic media staff Jerry Rostad, Randy Cadwell and Cj Johnson, 20 hours of programming in four days provided wheat production and marketing information from NDSU extension specialists and research faculty to more than 500 producers at 45 viewing sites.

Pesticide recertification training was conducted by satellite in 1996. This training had typically been presented at five or more locations around the state. With satellite, the program was conducted once, and all 400 applicators receiving the training were within one county of a downlink site. A survey showed 95 percent of the participants felt the method was an effective way to receive training.

North Dakota extension also receives programs produced at other universities or agencies. Programs on a wide variety of topics have been downlinked for public use or for staff training.

Another form of distance education is Web-based videoconferencing, developed under the grant-supported Technology Opportunities Program starting in 2000. Partners in the project are NDSU Information Technology Services, United Telephone Mutual Aid Corporation, the North Dakota Information Technology Department, and the North Dakota University System Interactive Video Network. Coordinators were Jay Fisher of NDSU's North Central Research Extension Center and David Saxowsky, director of agriculture communication at NDSU.

A project performance report dated February 10, 2003, described activities conducted and significant milestones reached. The report said that a year earlier there had been 25 to 30 video sites in the state compared to 200 at

the time of the report. Lynette Flage, technology trainer, was providing training to new sites as they received videoconferencing equipment, either over video or in person.

Educational programs were provided to numerous sites by extension specialists in a variety of subject areas, including pesticide management, livestock marketing and production, e-commerce and others. For a seminar on cattle backgrounding sponsored by the Divide County extension office, several speakers delivered their presentations and answered questions by video conference, saving time and travel expense. Campus-based extension specialists were able to save an 800-mile drive and 15 hours of travel time.

Crops marketing specialist George Flaskerud was in his second year of providing instruction to marketing clubs. Schedules were established for six meetings, which would provide a total of 12 hours of education by video conferencing. Livestock marketing specialist Tim Petry provided livestock price outlook and related programs to marketing clubs interested in livestock. Because many of the livestock marketing clubs are located in western North Dakota, visiting the clubs in person would involve almost full time travel for campus-based specialists.

Project personnel were assessing the effectiveness of the technology, described as "not perfect, but it is improving all the time." The initial technology was deemed adequate for conferencing and meetings, but participants said the sites needed additional capability to be effective educational sites. The project was exploring additional projectors, cameras, electronic white-boards and related equipment.

Collaboration with state agencies such as IVN and ITD was described as critical for successful implementation of the technology. Efforts were under way to set up a statewide Web-accessible database with information for all state videoconferencing sites. Use of the technology was also spreading beyond extension, including classes offered by the North Dakota Association of Counties and the Institute of Local Government.

# Making an Impact

The fundamental role of the NDSU Extension Service is to provide education that enhances the lives of people and communities, primarily by extending the resources of the College of Agriculture and the College of Human Development and Education. These educational efforts involve many disciplines and are delivered in many different ways. The following are examples of extension programs that have had an impact on North Dakota and its people.

## Cropping Diversity

Providing education and information on crop production has been a major part of extension work in North Dakota since its inception. North Dakota agriculture has always been largely dependent on small grain production, although in the past most farms were diversified with both crop and livestock enterprises, involving some production of feed and forage. Increased specialization, however, led to a virtual monoculture of wheat, durum and barley interspersed with summer fallow. Sunflower provided an alternative, and potato and sugarbeet production were important in the Red River Valley, but reliance on small grains remained heavy. This lack of diversity did not allow good rotational cropping systems.

Extension Agronomist Duane Berglund recalls that when he returned to North Dakota in the late 1970s to take his extension job, soybean acreage in the state was very low. He was instrumental in helping form a soybean growers' group that in 1984 evolved into the North Dakota Soybean Council. Acreage has steadily increased, to about 2.5 million acres.

Crop diversity became a larger issue in the late 1990s as weather in the form of excess precipitation, economic pressures, low commodity prices and environmental

issues all placed added stress on the farm economy. Starting in 1998 extension responded with a comprehensive program effort of crop diversity and cropping systems. Diverse crops included canola, field peas, sunflower, soybeans, dry beans, flax and lentils. Canola schools, oilseed schools, soybean workshops and pulse crop and legume crop workshops were held statewide. Extension agents and specialists also worked individually with producers interested in trying these rotational crops.

Over a four-year period the North Dakota landscape changed, with more broadleaf and alternative crops being produced. Canola acreage increased by 183 percent, soybeans by 143 percent, flax by 562 percent, field peas by 131 percent, lentils by 205 percent, mustard by 190 percent, edible beans by 27 percent, and corn by 65 percent. Sunflower acreage remained the same while wheat acreage was down 25 percent and barley down 42 percent.

Based on 2002 yields and prices, these changes in cropping practices increased farm gate revenues by an average of \$11.40 per acre over what would have been realized had 1995-96 cropping patterns been repeated. Increased gross income to North Dakota farmers amounted to about \$227 million in 2002.

Members of the crop diversity team included Berglund and area specialists Greg Endres, Kent McKay, Terry Gregoire, Roger Ashley and Janet Knodel.

## Irrigated Potatoes

The potato industry has been a major economic force in North Dakota with over 125,000 acres planted each year. Potatoes grown supply the fresh potato market, the seed market and the processing market, including chips,

hash browns, french fries and other products. Until the drought of 1988-89 practically all potatoes were grown under dryland conditions in the Red River Valley.

During the drought, processing companies, especially french fry processors, felt a need for irrigated potatoes to ensure a consistent supply of high quality potatoes. The drought, combined with increased demand spurred processors to consider expanding or building new plants.

From 1988 to 2002, irrigated potato acreage in the state increased from around 5,000 acres to over 35,000 acres, an increase of about 2,500 acres per year. Almost all the irrigated acres produce potatoes for the french fry processing market. Since 1994 a new processing plant has been built in Jamestown and a plant in Grand Forks has been expanded twice.

Most of the land and aquifers for irrigated potato production are located outside of the Red River Valley. This meant potential growers needed to know about irrigating potatoes, as well as about local aquifers and suitability of soils for irrigation. NDSU extension and research were asked to put together information and developed a report with maps outlining irrigable, conditional and non-irrigable land over the aquifers in 23 counties surrounding Jamestown. The report clearly showed the potential for irrigated potato production in central North Dakota.

In 1991 extension, in cooperation with several electric coops and other agencies, created the Irrigated High Value Crops Task Force. This group generated funds to create an area diversification specialist located in Valley City to act as a clearinghouse for information on markets for high value crops, including potatoes. This effort was instrumental in helping bring a potato processing plant to Jamestown.

A publication on growing irrigated potatoes was developed in 1992 and revised in 1996. Economic information on production budgets and capital costs of irrigation equipment from the publication has been used to obtain funding for several irrigation districts, irrigated potato demonstrations in the Williston area, and by farmers to justify investment in irrigation equipment to lenders. Between 1991 and 1999 28 one-day irrigation workshops were held at various locations in North Dakota. In 1994 a two-day irrigation workshop was held at the Carrington Research Extension Center, with the first day designed for potential irrigators and the second on irrigated potato production.

Expansion of the Grand Forks plant and construction of the Jamestown plant have had substantial economic impact. For example, the Jamestown plant has resulted in \$20 million in new direct revenue to farmers, major increases in business activity for agri-business, more than 280 employees in the plant and an estimated \$170 million in gross business volume to the state of North Dakota. Jamestown has seen increased real estate values and new commercial and residential real estate development. The plant and residential property associated with plant workers provide about a million dollars of property tax per year. Expansion of the plant in the near future will create additional economic activity.

The task force along with commercial interests and state agencies continued after the major irrigated potato project was complete, working to support new projects involving high value irrigated crops such as carrots, alfalfa, onions, turfgrass seed, vegetables for salad production, peppers and fresh herbs.

Extension team members were Tom Scherer, irrigation specialist, and Rudy Radke, diversification/high value crops specialist.

## **Rural Families Under Stress**

The closing years of the 20th century and opening years of the 21st saw extreme economic and social difficulties for rural families and communities, brought about by depressed market prices, fluctuations in demand for agricultural products, weather-related impacts, and increased costs of agricultural production. A poll of North Dakota rural life in 1999 showed that 98.5 percent of farm and ranch operators felt there was a "rural crisis." Resulting impacts on rural families included financial challenges, emotional distress, increased social isolation, and more health concerns.

The poll indicated 85 percent of farm and ranch operators were concerned about the negative effects of farm stress on themselves, their spouses or their children. Rural families are often uncertain about working with community institutions for support. Community professionals often have limited familiarity with the experiences of rural families under stress or how to effectively provide resources and support.

Family Life Specialist Sean Brotherson developed a training seminar for community professionals working with families under stress. "Hard Choices in the Heartland" focused on the impacts of rural stress on families

and communities, strategies for working with rural families, and developing resources and support for rural families under stress. The seminar was intended to help participants understand the importance of rural stress on families and communities, become familiar with resources and materials on working with rural families, learn about effective approaches to working with rural families under stress, and to plan to use resources and strategies in their work with rural families.

Five one-day workshops for community professionals were offered at locations across North Dakota in late 2001 and 2002. Training was offered by a team of professionals from NDSU extension, the Family Therapy Center at NDSU, NDSU faculty, and the MeritCare Health System. The 146 seminar participants included social workers, psychologists, clergy, nurses, attorneys, addiction counselors, farmers, farm loan managers and others.

Feedback from participants indicated about 86 percent felt the training on understanding rural families under stress and the resources and materials provided were useful to their work. Most participants said they were much more knowledgeable about working with families under stress and planned to use resources and strategies they had learned about.

Written comments from participants included: "I now understand and relate much better to low-income farming families," "I appreciated the statistical information, and putting ourselves in others' shoes and looking at the issues facing farm families in a clearer light," and "I was challenged and encouraged to be a pioneer in rural ministry — thank you."

## Precision Farming

Precision, or site-specific, farming is relatively new to North Dakota. In 1994 only one commercial fertilizer applicator offered variable-rate service, and about 10,000 acres were treated with some sort of variable-rate application. That year NDSU extension established an educational program focused on precision farming and its possible use in North Dakota. The precision farming team included Soils Specialist Dave Franzen and Agricultural Engineer Vern Hofman.

Research fields were established to evaluate soil-sampling methods and the profitability of variable-rate fertilizer technology to local crop rotations. Workshops on site-specific agriculture were offered every year from

1995 through 1999 to provide updates on developing technology and provide a forum for people interested in precision farming to interact with others. Many other presentations on various aspects of precision agriculture were also made to growers.

Research found that zone sampling for soil testing gave producers similar information to that obtained from more expensive grid sampling, making site-specific technology practical not only for growers of high value crops like sugarbeet but also commodity crops. As of the 2002 crop year, about a third of Red River Valley sugarbeet acreage is treated with variable-rate application. At least 20 variable-rate commercial applicators were operating in the Valley, and several producers operated their own equipment. Site-specific management had also spread west of the Valley, and combine yield monitors could be found scattered across the state.

## Family Nutrition

NDSU extension serves North Dakota families with very limited incomes through two nutrition programs. The Family Nutrition Program (FNP) offers nutrition education for food stamp recipients. Limited resource families with young children are served by the Expanded Food and Nutrition Education Program (EFNEP). The 2003 extension family nutrition team included EFNEP/FNP Coordinator Margaret Tweeten, Sue Fungingsland (working on a diabetes project), FNP Specialist Barbara Holes-Hauck, and nutrition education assistants and agents in county offices.

FNP staff members deliver programming related to basic nutrition, food safety and food purchasing to food stamp recipients in all 53 counties. The objective is to help participants acquire knowledge, skills, attitudes and behavior needed to maximize their resources and achieve nutritionally sound diets. During the 2001-2002 program year FNP staff members made 68,800 direct contacts with food stamp recipients. As a result of FNP involvement participants improved overall food safety practices, improved overall dietary quality, moved closer to dietary recommendations, improved shopping skills and decreased the need to seek emergency food assistance. Positive impacts in health and family economics have contributed to an overall sense of pride for successful participants.

The EFNEP program is provided at six locations in North Dakota, including tribal reservations at Fort

Berthold, Spirit Lake Nation, Sioux County and Rolette County and in Cass County and Grand Forks County. Nutrition education assistants provide lessons on nutrition, food resource management, food preparation and food safety to families participating in the program. A total of 716 families participated in EFNEP in 2001-2002. EFNEP also works with youth in various ways. More than 1,700 fourth grade students participated in a number of nutrition education programs provided at schools, after-school programs, day camps or youth centers.

## Root Disease in Western North Dakota

An extension team including an area cropping systems specialist, an extension plant pathologist and county agents in southwestern North Dakota developed a demonstration using a soil fumigant to show producers the yield and quality losses that can be expected when planting continuous wheat, planting wheat every other year, and with at least a two-year break between wheat crops. Nitrate levels in the root zone were also compared to show the potential environmental impact with continuous wheat if nitrates should be leached below the root zone.

Demonstrations and results were observed and discussed with producers at field days and county agricultural improvement tours. Presentations were also developed for delivery to producer groups and were included in an extension CD that was distributed to county agents.

Results showed that producers who include a two-year break from wheat in their crop rotation see an increase in gross income of \$36 per acre compared to continuous wheat. Some producers reported up to \$40 per acre return on specialty crops grown, and producers learned they can produce comparable and sometimes greater yields than on fallow. Fallow acreage in southwestern North Dakota has declined by 520,000 acres since the demonstration was initiated. Wheat and barley acreage each declined by 300,000 acres, indicating less continuous wheat and barley are being planted.

Cooperators in the demonstrations included Montana State University Extension Service, the Dickinson Research Extension Center, and the county extension offices and crop improvement associations in Adams, Golden Valley, Hettinger, Mercer, McLean, Morton, Oliver and Sioux counties.

## Pesticide Certification

Pesticides are classified as either general use or restricted use. General use pesticides are considered safe for use by the average person, provided label directions are followed. The Environmental Protection Agency (EPA) and the North Dakota Pesticide Act require an individual to become certified before purchasing or using a restricted-use pesticide. North Dakota also requires commercial applicators to become certified to use general-use pesticides.

The NDSU Extension Service is responsible for certification of pesticide applicators, dealers and consultants in North Dakota. Certification is intended to assure that people who use, merchandise or recommend certain types of pesticides or who make specific types of applications have a fundamental understanding of how to do so safely. The main intent of pesticide certification is to increase the awareness of pesticide safety, proper use and disposal of pesticides, and understanding of the pesticide label and its importance. There are two basic types of certification: private and commercial.

In the early years of certification, responsibility for the program was assigned to various extension specialists involved with pesticide use as part of their programs. The first full time pesticide program coordinator was Greg Dahl, followed by Andrew Thostenson.

The pesticide program develops the curricula and supporting materials for training, conducts commercial applicator training, oversees county extension agent delivery of private applicator training, designs and oversees exams for both commercial and private applicators, maintains a database of commercial applicators, supervises the record keeping of private applicators, and verifies and administers financial responsibility requirements for commercial applicators.

In 2002, 2,381 commercial applicators in 12 different use categories were certified. The pesticide program managed 6,331 active commercial certifications. A total of 4,277 private applicators in two different use categories were certified in 2002. The program managed 14,242 active private certifications. Thirty-six commercial certification training sessions and 88 private certification training sessions were held in North Dakota in 2002.

The pesticide program is one extension effort that has virtually a "captive" audience, as certification is required for users of restricted pesticides. However, a survey of all

active commercial and private certificate holders conducted in the fall of 2002 returned overwhelmingly positive response. Nearly 92 percent of private applicators and 89 percent of commercial applicators who answered the survey said certification training was conducted effectively and in a professional manner. Nearly 88 percent of private applicators and over 80 percent of commercial applicators agreed that training focused on pest control problems relevant to their needs.

## Implementing HACCP

Foodborne illness has been a topic of increasing concern, with outbreaks sometimes getting nationwide news coverage. According to USDA data, nearly half the money spent on food is spent on eating away from home. Increasing numbers of North Dakotans are eating meals away from home, and the number of food service establishments is increasing.

Hazard Analysis Critical Control Point (HACCP) is a food safety system applicable across the food industry, from production to processing to retail to foodservice. By assessing potential hazards and identifying critical control points, food handlers can take measures to prevent hazards. Nutrition Specialist Julie Garden-Robinson conducted HACCP education for food service employees from restaurants, nursing homes, hospitals, childcare centers, schools, universities and meat processing plants. Objectives were to increase the knowledge and implementation of food safety/HACCP principles among food handlers at the processing and retail levels and reduce the risk of foodborne illness at North Dakota food processing establishments.

Since 1996, more than 1,500 food service managers and employees in over 100 North Dakota communities have attended food safety workshops held throughout the state. On followup surveys, 99 percent of participants rated food safety as "very important." Nearly 66 percent reported washing their hands more often when preparing food, 57 percent reported using food thermometers more often, and 43.5 percent had changed their cooling practices. Many respondents reported telling other people about what they had learned or sharing workshop materials with others.

## Less Herbicide, Less Cost, More Time

Using postemergence herbicides is an expensive but necessary practice for sugarbeet growers in the Red River Valley. Looking to help growers cut costs and still

provide excellent weed control, Alan Dexter, sugarbeet specialist for NDSU and University of Minnesota extension, developed a micro-rate application plant of herbicides combined with a seed oil additive.

Herbicides are applied at rates 66 to 75 percent lower than standard rates. The oil additive makes the herbicide mixture adhere better to weeds and aids in penetration. Weeds are treated earlier with the low rate and fields are given one more application than the usual three or four. The micro-rate can be applied during the day while growers needed to wait until late afternoon to start applying the normal rates to avoid damage to the sugarbeet crop. Also, the lower cost of the micro-rate application means it can be broadcast by aerial spraying, which would be prohibitively expensive with normal rates.

The micro-rate was quickly adopted by growers when it was introduced in 1998. A survey showed that 64 percent of growers in eastern North Dakota and Minnesota used the micro-rate, an astounding figure for a new management practice, and 99 percent of those who used it said they planned to use it again.

Growers estimated they saved \$30 to \$40 per acre in weed control costs by using the micro-rate. The savings on 64 percent of the 700,000 acres of sugarbeet in 1998 would be \$13 to \$18 million. Also, in the wet spring of 1998 growers were able to micro-rate with aerial spraying when they would not have been able to get into the wet fields and aerial spraying with full rates would have been too expensive.

An unexpected benefit also resulted. Many growers commented that because they were able to use the micro-rate during the day instead of waiting until late afternoon or evening they were free to spend more time in activities like watching their children play sports or attending other community events.

## Character Counts

Today's children have not always had the opportunity to make wise choices. Ethics education is a concept that has been incorporated into 4-H youth programming as well as in schools and communities throughout North Dakota. Character Counts! is an educational program developed by the Josephson Institute of Ethics and adopted by the NDSU Extension Service to teach the six character traits of trustworthiness, respect, responsibility, caring, fairness and citizenship.

State, federal, local and grant funding have enabled North Dakota to offer Character Counts! in communities and in 4-H activities throughout the state. Volunteers and county extension staff along with school administrators, teachers and community members have been part of the program in local communities.

Leaders and teachers are trained and then teach the curriculum and activities to others. Educational materials on character including extension publications and newsletters promote and explain character education. It has also been incorporated into activities at county and state fairs. Many schools have requested this character education program and have come to extension for assistance.

A survey of teachers to evaluate the effectiveness of Character Counts! indicated that most teachers in grades 1-6 believe students in the program help each other more, call each other names less, are less destructive of property, treat the teacher with more respect, play by the rules more often and have better recess behavior. In grades 7-12, where less time is spent on Character Counts!, the numbers are lower.

One teacher responded, "I think it is an excellent program but it is way too soon to be looking for permanent changes! I think those who started these activities at a younger age and continue them will gain more than most senior high students." Another said, "It takes time to make changes in our lives."

## **Beef Quality Assurance**

Beef Quality Assurance (BQA) programs were developed in the late 1980s and early 1990s in response to a sharp drop in consumer demand for beef. Producers are becoming involved in BQA programs because they want to improve the quality of beef they are producing, which should increase demand for beef. Also, BQA producers often receive a premium price for their cattle.

A team consisting of BQA Coordinator Lisa Lee, Beef Cattle Specialist Greg Lardy and Extension Veterinarian Charlie Stoltenow developed a quality assurance program specifically for North Dakota cow-calf producers. A North Dakota BQA committee includes representatives from the North Dakota Stockmen's Association, North Dakota Beef Commission, North Dakota Department of Agriculture, North Dakota Veterinary Medical Association, North Dakota Livestock Marketing Association and allied industry representatives.

The BQA team, with assistance from the committee, developed certification requirements that interface with those of other states and BQA national requirements, developed a "user friendly" BQA producer manual, and developed and implemented an education course for cattle producers.

Training sessions, conducted with local county extension agents and participating veterinarians, are designed to help producers implement BQA management practices to improve the quality and consistency of beef. These practices include giving all injections in the neck to avoid lesions in high value cuts of beef and keeping records of animal health and feeding production practices.

The program has certified more than 1,200 beef cattle operations that market over 162,000 cattle annually, or about 17 percent of the state's calves. An early result was heightened interest in North Dakota BQA-certified cattle by BQA-certified feedlots, bringing more buyers into the state cattle market, increasing competition and price. County agents report that producers who have a BQA guarantee of a quality product usually gain about five cents per pound for their calves.

## **Dairy Diagnostic Program**

Since 1992, the number of North Dakota dairy farms exiting the industry has been at the rate of 3 to 17 percent a year. As a result the state's milk processing plants are operating much below capacity and area service providers, from transportation to equipment dealers, are disappearing. The dairy industry has called for action to reverse current trends. The North Dakota Dairy Diagnostic Program (ND3P) was developed to help existing dairy farm families by enhancing income and improving lifestyles.

After a successful pilot program, Extension Dairy Specialist J.W. Schroeder and the North Dakota Dairy Strategic Planning Task Force launched an effort to the legislature to secure more direct funding for the program. These efforts eventually resulted in additional appropriations of \$50,000 per biennium directly to the NDSU Extension Service for ND3P development. In addition, the North Dakota Agricultural Products Utilization Commission provided significant funding to help grow the program into a state-wide educational effort.

Each dairy farm family in the program forms an advisory team consisting of a combination of service providers. A

state-wide coordinator and two facilitators (all part-time) initiate, implement and maintain 10 to 20 farm teams each. Advisory teams are required to help farm families prepare and record a set of attainable goals and help document the impact of new technologies implemented on the farm. The intent is to analyze dairy farm enterprises through teamwork and provide training on communication and facilitation skills for both the farm family and the supporting team members.

By the end of the 2001 planning year 51 farms had been introduced to the ND3P concept. Some significant success stories include:

- Farm 1 expanded from 87 to 130 cows while maintaining milk production at 57 pounds per cow per day for a gross economic impact of nearly \$86,000.
- Farm 2 initiated a herd health and vaccination program that increased milk production from 57 to 71 pounds per cow per day on 88 cows while lowering feed costs by 37 cents per day for a gross economic impact of more than \$53,000.
- Farm 3 increased milk production 9.2 pounds per cow per day in a herd of 34 cows and decreased feed costs 37 cents per day for a gross economic impact of nearly \$15,000.
- Farm 4 increased milk production 12.4 pounds per cow per day on a herd of 54 cows while milk quality increased for a gross economic impact of more than \$40,000.
- Farm 5 increased milk production 17.6 pounds per cow per day in a herd of 33 cows for a gross economic impact of more than \$20,000.
- Farm 6 increased milk production 6.6 pounds per day in a herd of 210 cows because of feed ration adjustments; gross economic impact was more than \$48,000.

## Marketing Clubs

Across North Dakota groups of farmers have formed marketing clubs to help them learn the fine points of selling the commodities they produce along with overall financial risk management. These clubs are a joint effort of the NDSU Extension Service and the North Dakota Farm Business Management Program.

The 1999 and 2001 state legislative sessions made funds available to assist clubs formed for marketing education purposes. The marketing club program is coordinated by Marketing Specialist George Flaskerud and Steve Zimmerman of the farm business management program.

Flaskerud provides overall educational support for the program, including in-service training for extension agents and farm business instructors. He also maintains a web site with educational material for the club curriculum. Funding from a U.S. Department of Commerce grant paid for technology for Flaskerud to serve as instructor for a group of marketing clubs using video conferencing via the Internet using a small video unit in his office and a second computer to transmit visual aids.

Some clubs specialize in livestock marketing, including an area-wide club that involves producers from three counties. This group emphasizes beef cattle marketing along with feed grains and also discusses livestock industry development in the area.

County agents who act as club facilitators observe that the club experience gives members the knowledge and confidence to use the principles they learn in their own operations.

## Farm Bill Analysis

The 2002 federal farm bill offered a one-time opportunity for landowners to adjust their acreage bases and yields used to determine decoupled farm program payments until at least 2007. The options — complex and often confusing—can significantly impact farm profitability and land values. Education was needed to help landowners and producers evaluate all the options.

Farm management specialists Dwight Aakre and Andrew Swenson met with the state Farm Service Agency director and commodity program experts to discuss helping producers and landowners understand the farm bill to make the best sign-up decision, and to expedite sign-up at county FSA offices.

A national Web-based tool to evaluate base and yield options was being developed for FSA by Texas A&M University, but the NDSU specialists decided to develop similar software. NDSU extension had been a trusted provider of farm bill analysis software since 1985. It was very important that analysis software correctly handle the six minor oilseed crops with production concentrated in North Dakota that were new program crops under the 2002 bill, and the specialists wanted to provide an alternative that users might find easier than the national Web-based analyzer.

Software was developed to run under recent versions of the spreadsheet programs Excel, Lotus 1-2-3 and Quattro

Pro. During development several issues were brought to the state FSA office and forwarded to the federal level to help clarify and expedite decisions that had to be made.

Several meetings were held to provide training for professionals who work with producers and landowners, including county extension agents, farm business management instructors and marketing club facilitators, and software demonstrations were featured at meetings attended by 200 agricultural lenders. Software was distributed at all meetings.

Information for the public started with three releases to the news media and development of a website where the software and instructions could be accessed. Farm management specialists were at the Ag Expo farm show in Fargo and at the Lake Region Roundup in Devils Lake to answer questions, and county agents demonstrated the software at county meetings. The major educational effort was that every county extension office provided assistance to individual producers and landowners.

County FSA offices in North Dakota and other states used the software to help producers evaluate their options. The software was also used by ag lenders, farm management agencies and consultants to help their clients. Individual producers and landowners used the program and often helped their neighbors. Thousands of producers and landowners used the software at county extension offices.

## Talking to Kids

In times of stress, whether a death in the family, hard economic times, divorce or war, children react to the actions and moods of the adults in their lives. Young people often need reassurance and help in understanding what is going on around them.

Since the early 1990s, family science specialists have created a series of publications designed to help parents help their children deal with disturbing or frightening things in their lives by talking to them. Originally titled "Talking to Your Kids About...", later modified to "Talking to Children About...", these items have been heavily used by parents in North Dakota and, largely through access on the World Wide Web, throughout the United States and even in other countries.

The series originated with Family Specialist Deb Gebeke along with Helen Danielson and Kim Bushaw. It was updated and added to, including "Talking to Children

About Armed Conflict" by Karin Bartoszuk and Sean Brotherson in response to preparations for a second war in the Persian Gulf and deployment of several National Guard and Army Reserve units from North Dakota.

Other topics that have been covered include talking about strangers in response to news reports about child abductions, divorce, suicide, failure and alcohol. In 1992 "Talking to Kids About AIDS" was developed in response to news about the growing AIDS epidemic, and the announcement by NBA basketball player Magic Johnson that he had tested HIV positive, which made many children much more aware of the disease. Myron Johnsrud, former North Dakota extension director then administrator of the federal extension service, used this item as an example of effective, reactive programming.

## Biotechnology

Biotechnology has become a complex and sometimes controversial topic, one that extension has had to address in various ways. The topic entered the vocabulary of specialists and agents as early as 1986, when the "flavor saver" tomato was in the news and research on Roundup Ready soybeans was under way.

As Roundup Ready soybeans became available to growers about 1996, to be followed by BT corn and Roundup Ready canola, biotechnology became part of crop production. Extension has provided education about the science of biotechnology and contributed to the dialog regarding the impact and issues associated with genetically modified crops. By 2002, an estimated 25 percent of the corn, 50 percent of soybeans and 70 percent of canola grown in North Dakota was genetically modified.

During the extension spring conference in 2001, the schedule included six hours of training on the subject of biotechnology for all staff, not just those involved with production agriculture. The reason was that biotechnology was a consumer and public policy issue as much as an agricultural issue.

Crop Specialist Mike Peel authored an extension circular titled "A Basic Primer on Biotechnology" to provide information on basic genetic processes and how biotechnology can be used to modify plants. He was also involved with training extension agents as well as high school science and agriculture teachers on the subject.

Biotechnology has become part of the training for pesticide certification. Crop variety trials now deal separately with GMP and non-GMO varieties. NDSU researchers have developed dual systems for breeding, testing and handling genetically engineered and non-transgenic crops. The economic, ethical and social aspects of biotechnology are also being studied at NDSU and at other universities.

## The 4-H Conversation

One of the best ways to share ideas and information is to have a conversation, so the National 4-H Council decided to do that in a big way—a nation-wide conversation to identify the most important issues for young people. The National Conversation on Youth Development in the 21st Century was developed as part of the centennial of 4-H youth work observed in 2002, marking 100 years since the first youth “corn club” was established in Iowa, an effort that evolved into the national 4-H organization.

In North Dakota, the national conversation started out with local discussions in every county in the state, one of only a handful of states that conducted conversations in every county. The local conversations identified issues for discussion in a state-wide conversation, and ultimately one national report containing recommendations for future youth programs and policies.

Nels Peterson, extension agent in Nelson County and North Dakota’s 4-H centennial coordinator, said that to him the most amazing thing about the national conversation was the commonality of the issues raised throughout the nation, from sparsely populated rural areas to the most densely populated cities.

Specific needs and solutions suggested in North Dakota included:

- a need for communities to be more aware of 4-H and other youth programs;
- the need for programs to promote cooperation among business, schools, communities and youth groups;
- a need for mentoring programs to develop trust, respect and tolerance; and
- the need to involve youth in the decision-making process in communities.

Five North Dakota 4-H members went to Washington, D.C. to participate in the national discussion. They were

Rodney Bischof, Jr., Lisbon; Jennifer Larson, Hillsboro; Nicole Rodacker, Dickinson; Phillip Fox, Mandaree and Angela Klubberurd, Fargo. They carried the state report developed from the local discussions.

Peterson said, “The results showed that the young people of our state believe in the importance of community. They have indicated that youth and adults need to work together to continue to make our communities and state a good place to live.”

## Master Internet Volunteers

An increasing number of North Dakotans have access to computers, but many live in rural areas where few opportunities for Internet and technology training programs are available. Extension initiated the Master Internet Volunteer program to help some of these residents gain a basic understanding of computer and Internet technology.

Created along the same lines as the Master Gardener program, the Internet volunteer program offers 30 hours of training designed to enable volunteers to help other people learn to use the Internet. In return for specialized training, volunteers agree to donate time in their communities. The material used in North Dakota was developed by the Minnesota Extension Service. The NDSU agriculture communication unit and extension staff in the areas of community resource and economic development and 4-H youth development were involved, along with county staff members in 44 counties trained to teach the material.

In a September 2002 report, information technology specialist Lynette Flage said the program had been completed by over 300 individuals, and over half of them had finished providing a minimum of 30 hours of volunteer time. The volunteer time was used in many ways, including web site assistance, volunteering in homes and teaching classes. Many volunteers helped train Farm Service Agency staff around the state. Others helped develop web pages for their communities or organizations.

Many county extension agents teach the lessons in the MIV curriculum broken up into individual lessons for senior citizens, youth and other community members who want to know more about a specific Internet topic. Burleigh County alone trained over 100 people on basic Internet topics during 2001-2002.

# NDSU Extension Service Employees

January, 1985 - April, 2003

(Note: Extension Agent title replaced County Agent and Home Economist titles on 1/1/94)

## Administration

### Vice Presidents

**Anderson, Don** - Special Assistant to the  
President for Agricultural Affairs ..... 1/6/96-7/31/96  
**Donnelly, Brendan** - Vice President for  
Agriculture and University Outreach ..... 10/18/93-1/5/96  
**Jensen, Patricia** - Vice President and Dean  
for Agricultural Affairs ..... 7/1/97-present

### Extension Directors

**Anderson, Sharon D.** - Director ..... 1/1/95-present  
**Anderson, Sharon** - Acting Associate Director . 12/1/91-12/31/92  
**Christman, Robert** - Interim Director ..... 5/1/93-12/30/94  
**Johnsrud, Myron** - Director ..... 7/1/74-7/13/86  
**Pietsch, William** - Associate Director ..... 7/1/83-7/13/86  
**Pietsch, William** - Interim Director ..... 7/14/86-1/10/88  
**Pietsch, William** - Director ..... 1/11/88-5/31/93

### Assistant Directors and Program Leaders

**Anderson, Sharon** - Youth and Family  
Program Leader ..... 6/1/94-12/31/94  
**Berglund, Duane** - Assistant Director, Agriculture  
and Community Development ..... 10/1/83-10/31/89  
**Bosch, Geri** - Program Leader, Youth and 4-H ..... 7/1/92-1/30/95  
**Cogdill, Brad** - Interim Department Chair,  
Center for 4-H Youth Development ..... 1/15/02-1/14/03  
**Crow, Linda** - Interim Director,  
4-H Youth Development ..... 6/1/99-8/31/99  
**Fowler, Sue** - Assistant Director,  
Home Economics ..... 8/1/79-7/31/85  
**Fundingsland, Suzanne** - Interim Program  
Leader, Human Development ..... 2/1/95-1/31/96  
**Hamann, Marjorie** - Assistant Director,  
Home Economics ..... 4/1/86-2/10/91  
**Hanson, Richard** - Associate Director,  
Human Development ..... 7/1/91-6/30/92  
**Hauck, Duane** - Acting Assistant Director,  
Agriculture and Natural Resources ..... 4/1/00-7/31/01  
**Hauck, Duane** - Assistant Director,  
Agriculture and Natural Resources ..... 8/1/01-present  
**Haugen, Roger** - Interim Assistant  
Director, 4-H Youth ..... 2/15/95-2/14/96  
**Humphrey, F.C. (Chuck)** -  
Assistant Director, Communication ..... 7/1/77-10/1/88

**Lundstrom, Darnell**, Assistant Director,  
Agriculture and Natural Resources ..... 7/1/90-3/31/00  
**Martindale, Thomas** - Assistant Director,  
4-H Youth ..... 8/1/68-6/30/85  
**Miller, Jeff** - Assistant Director,  
4-H Youth Development ..... 5/1/96-5/21/99  
**Miller, Thomas** - Acting Assistant Director, 4-H ... 7/1/85-1/14/87  
**Pietsch, William** - Assistant Director,  
Ag and Community Development ..... 8/6/79-6/30/83  
**Satterlee, Lowell** - Associate Director  
and Dean, College of Agriculture ..... 10/15/93-2/13/97  
**Wohlgemuth, Kurt** - Interim Assistant  
Director, Agriculture & Natural Resources ..... 11/1/89-6/30/90  
**Zotz, Karen** - Assistant Director,  
Nutrition, Youth and Family Science ..... 1/2/97-present

### District Directors

**Anderson, Sharon** - District Director, East ..... 1/1/94-12/31/94  
**Anderson, Sharon** - District Director, Northeast . 4/1/84-11/30/91  
**Burbank, John** - District Director, Central ..... 6/16/84-6/30/89  
**Condon, Marvin** - District Director, Northwest ... 12/1/74-2/28/86  
**Davidson, Morris** - District Director, Northeast .... 2/1/95-present  
**Eide, Wallace** - District Director, Southeast ..... 7/1/84-7/31/89  
**Fisher, Jay** - District Director, Northwest ..... 7/1/90-present  
**Frank, Maxine** - Acting District Director, East .... 1/1/92-10/31/92  
**Hanson, Thomas** - Acting District Director,  
Northwest ..... 6/15/96-present  
**Hauck, Duane** - District Director, Central ..... 1/1/90-8/1/01  
**Hecht, Harry** - District Director, Southwest ..... 11/1/75-12/31/87  
**Peterson, Don** - District Director, Southwest ..... 3/1/86-12/31/93  
**Sturn, Gerald** - District Director, Southwest ..... 7/1/94-present  
**Tweten, Margaret** - Acting District Director,  
MPU 5 minus Cass County ..... 10/1/01-present  
**Tweten, Margaret** - Interim District Director,  
Southwest ..... 1/10/94-6/30/94

### Other Administration

**Amend, Eddie** - Volunteer Leadership  
Development ..... 9/1/78-7/31/85  
**Arnott, Donna** - Administrative Assistant,  
Northwest District ..... 9/8/92-present

**Askland, Shanda** - Administrative Assistant,  
 Director's Office ..... 9/1/80-6/15/87  
**Baker, Paige** - Special Projects Director ..... 6/11/91-12/31/92  
**Bollinger, Bruce** - Ag Budget Office Director ..... 4/2/98-present  
**Brunelle, Cynthia** - Secretary ..... 10/1/28-6/30/91  
**Cooper, Debra** - Secretary, East and Central  
 Districts and Director's Office ..... 9/1/90-8/14/98  
**David, Gloria** - Admin. Assistant,  
 Northwest and Southwest Districts ..... 4/7/86-8/31/88  
**Entringer, Val** - Administrative Assistant,  
 Southwest District ..... 11/1/94-present  
**Frieler, Leann** - Accountant, Ag Budget Office ... 3/14/85-present  
**Gestrung, Jessica** - Secretary ..... 11/14/88-6/30/89  
**Geyer, Joan** - Administrative Assistant ..... 9/18/78-10/20/97  
**Goodyear, Char** - Administrative Assistant,  
 Assistant Director's Office ..... 11/3/90-12/31/00  
**Gunderson, Gail** - Coordinator, Staff and  
 Organizational Development ..... 9/1/84-4/30/90  
**Hall, Sheree** - Secretary ..... 11/1/86-2/9/87  
**Hamilton, Irene** - Secretary ..... 8/5/91-11/15/91  
**Heinze, Sheila** - Secretary ..... 9/1/79-8/5/86  
**Holbrook, Sandra** - Human Resource Dev.  
 Specialist and EO Officer ..... 7/1/90-6/1/03  
**Holt, Kris** - Administrative Assistant,  
 Assistant Director's Office ..... 3/1/00-present  
**Holzer, Rhonda** - Account Technician,  
 Ag Budget Office ..... 10/1/85-present  
**Hugelen, Linda** - Secretary ..... 9/1/86-1/29/88  
**Hvidsten, Marie** - Rural Leadership Specialist ..... 10/4/02-present  
**Johnson, Vernice** - Secretary ..... 9/1/89-6/30/93  
**Koch, Becky** - Staff Development Specialist ..... 1/1/96-present  
**Lymburner, Lori** - Administrative Assistant,  
 Director's Office ..... 7/13/87-present  
**McQuay, Wendy** -  
 Secretary, Vice President's Office ..... 4/29/96-12/13/96  
**Montgomery, Betty** - Secretary, Central District .... 11/1/86-2/9/87  
**Morgan, Sharon** - Account Technician,  
 Ag Budget Office ..... 2/1/94-present  
**Narum, Linda** - Grants Specialist ..... 7/1/01-present  
**Neumann, Dawn** - Administrative Assistant,  
 Vice President's Office ..... 2/1/94-11/30/94  
**Nord, Phyllis** - Secretary, East and  
 Central Districts ..... 10/1/78-6/30/91  
**Olson, Margaret** - Administrative Assistant,  
 Vice President's Office ..... 7/1/94-present  
**Osman, Mark** - Ag Budget Office Director ..... 7/23/90-4/2/98  
**Riehl, Paula** - Secretary, Southwest District ..... 1/29/90-5/5/95  
**Schroeder, J. W.** - Assistant to the Director ..... 10/16/91-10/31/92  
**Smith, Nancy** - Secretary, Northeast District ..... 8/5/02-present  
**Stark, Steven** - Marketing Specialist ..... 6/1/87-11/16/90  
**Suchan, Pat** - Administrative Assistant,  
 Vice President's Office ..... 8/1/95-2/11/96  
**Swank, James** - Accounting Manager,  
 Ag Budget Office ..... 2/1/94-present  
**Vig, Ona** - Grant and Contract Officer ..... 2/1/94-present  
**Ziegler, Melanie** - Admin. Assistant,  
 Assistant and District Director's Office ..... 10/26/98-present

# State Specialists and Staff

## Agriculture and Natural Resources

### Agribusiness and Applied Economics

(formerly Agricultural Economics)

**Aakre, Dwight** - Farm Management Specialist .... 7/10/84-present  
**Anderson, Ronald A.** - Resource Economist ..... 2/1/63-6/30/93  
**Bartuska, Sue** - Secretary,  
 Center for Rural Revitalization ..... 10/24/88-6/30/93  
**Crane, Laurence** - Farm Financial  
 Management Specialist ..... 4/15/92-6/21/95  
**Deck, Rose** - Secretary ..... 9/11/89-3/3/93  
**Dorow, Norbert** - Public Affairs Economist ..... 7/1/63-6/30/90  
**Edinger, Pam** - Secretary, Center  
 for Rural Revitalization ..... 8/17/87-9/30/88  
**Edwardson, Steve** - Farm Management Economist 4/1/87-1/18/89  
**Erickson, Sandy** - Secretary ..... 10/12/98-present  
**Flaskerud, George** - Grain Marketing Economist .. 9/1/88-present  
**Gilland, Gloria** - Secretary ..... 11/20/89-8/10/90  
**Grabanski, Ray** - Farm Management Specialist ..... 9/1/91-4/9/92  
**Hardie, Wallace** - Extension Associate ..... 10/1/84-9/30/87  
**Haugen, Ron** - Farm Management Specialist ..... 1/22/91-present  
**Hughes, Harlan** - Livestock Economist ..... 6/1/85-3/31/00  
**Knott, Sandra** - Secretary ..... 12/6/89-5/17/91  
**Kraenzel, David** - Agribusiness Specialist ..... 1/13/97-1/11/02  
**Leholm, Arlen** - Farm Management Economist .... 7/1/82-2/24/89  
**Luther, Darrel** - Small Business Specialist ..... 8/1/87-10/2/87  
**Lymburner, Lori** - Secretary ..... 3/19/84-7/12/87  
**Mataska, Monica** - Secretary ..... 10/17/98-5/26/89  
**McDonald, Hugh** - Grain Marketing Economist .... 7/15/69-8/3/87  
**Osborne, Sandra** - Secretary ..... 9/1/93-present  
**Petry, Tim** - Livestock Economist ..... 1/1/02-present  
**Redman, Susan** - Business Retention Specialist ..... 3/3/85-5/9/86  
**Reff, Tommy** - Farm Management Economist ..... 8/1/69-7/3/87  
**Rice, Billy** - Farm Management Economist ..... 9/13/65-7/3/87  
**Smith, J. Pat** - Sociologist ..... 3/15/78-6/30/87  
**Speich, Jane** - Secretary ..... 2/24/75-11/10/89  
**Sticka, Toby** - Business Retention Specialist ..... 1/11/88-5/31/91  
**Swenson, Andrew** - Farm Financial  
 Management Specialist ..... 8/1/91-present  
**Toman, Norman** - Livestock Marketing and  
 Farm Management Specialist ..... 8/15/78-10/31/93  
**Tweeten, Kathleen** - Community Economic  
 Development Specialist ..... 7/1/98-present  
**Vangness, Elmer** - Resource Economist ..... 4/1/58-12/31/86  
**Zetocha, Dale** - Small Business Specialist ..... 7/1/81-present

### Agricultural and Biosystems Engineering

**Ackerson, Norma** - Secretary ..... 9/1/93-9/2/94  
**Berge, Mark** - Associate Agricultural Engineer .. 9/17/84-12/31/86  
**Bornsen, Susan** - Secretary ..... 2/26/97-11/7/97  
**Brown, Dianne** - Secretary ..... 9/16/85-5/8/87  
**Fanning, Robert** - Farm Safety Specialist ..... 5/1/79-9/30/86  
**Fox, Sheri** - Water Quality Specialist ..... 2/2/02-present  
**Frederick, Sandy** - Secretary ..... 8/26/83-4/30/86  
**Goodyear, Char** - Secretary ..... 5/16/88-11/4/90  
**Hansen, Doris** - Secretary ..... 3/3/80-9/30/86  
**Hellevang, Kenneth** - Agricultural Engineer ..... 8/1/80-present  
**Hermes, Mary** - Water Quality Specialist ..... 7/15/91-7/5/92  
**Hirning, Harvey** - Agricultural Engineer ..... 8/1/75-6/30/93

Hofman, Vernon - Agricultural Engineer .....	8/1/75-present
Johnson, Dexter - Agricultural Engineer .....	7/1/61-12/31/87
Johnson, Tawnya - Secretary .....	6/1/00-9/28/01
Jurduns, Mary Ellen - Secretary .....	4/8/88-4/7/88
Linderman, Charles - Livestock Waste Management .....	6/1/01-present
Lundstrom, Darnell - Agricultural Engineer .....	10/1/67-6/30/90
Maher, George - Farm Safety Specialist .....	5/1/90-present
McDonough, Debra - Secretary .....	10/16/01-present
Mita, Dath - Remote Sensing Specialist .....	5/28/00-present
Murphy, Pam - Secretary .....	4/25/95-8/31/97
Nelson, Tammy - Secretary .....	10/1/80-8/23/85
Nowatski, John - Water Quality Specialist .....	9/1/94-present
Richardson, Mavis - Secretary .....	2/22/88-4/7/88
Rindy, Dennis - Information Systems Technician ..	5/7/02-present
Scherer, Tom - Water Quality/Irrigation Specialist .....	6/10/91-present
Seelig, Bruce - Water Quality Specialist .....	12/1/85-present
Skodje, Cheryl - Secretary .....	4/29/91-2/21/97
Smith, Patsy - Secretary .....	11/13/90-4/30/91
Stroh, Nancy - Secretary .....	11/18/97-present
Togstad, Dianne - Secretary .....	5/19/86-12/31/86
Vogel, Lambert - Energy Specialist .....	10/1/80-9/30/86
Weston, Dale - Water Quality Specialist .....	6/7/93-4/29/94
Wolf, Mary - Secretary .....	8/3/87-1/8/88

## Animal and Range Sciences

Berg, Philip - Research Specialist .....	8/1/88-5/3/94
Bodine, Betty - Secretary .....	12/8/78-present
Boland, Wayne - Veterinarian .....	9/16/91-2/9/96
Boyles, Stephen - Livestock Specialist .....	9/1/85-6/30/92
Carter, Bev - Secretary .....	7/17/63-5/31/91
Dhuyvetter, Dan - Livestock Specialist .....	1/10/94-present
Dodds, Duaine - Grassland Management Specialist .....	5/1/69-6/30/87
Erdmann, Holly - Secretary .....	7/1/91-present
Fisher, George - Dairy Specialist .....	7/1/61-8/19/88
Haugen, Roger - Livestock Specialist .....	6/16/78-present
Insley, Larry - Livestock Specialist .....	1/18/84-3/29/85
Johnson, LaDon - Livestock Specialist .....	1/1/66-12/31/93
Lardy, Greg - Livestock Specialist .....	6/11/97-present
Lee, Lisa - Beef Quality Assurance Coordinator ..	3/25/99-present
Messmer, Terry - Wildlife Specialist .....	9/1/84-8/31/91
Morse, Deanne - Dairy Specialist .....	8/1/89-9/11/92
Nudell, Dan - Research Specialist .....	5/1/89-9/11/92
Ringwall, Kris - Livestock Specialist .....	11/26/84-8/31/92
Schroeder, J.W.- Dairy Specialist .....	11/1/92-present
Sedivec, Kevin - Rangeland Specialist .....	7/17/89-present
Socha, Tom - Swine Specialist .....	10/14/98-6/30/02
Stoltenow, Charlie - Veterinarian .....	10/27/96-present
Wohlgemuth, Kurt - Veterinarian .....	1/1/78-8/31/90

## Cereal and Food Sciences

Sorenson, Brian - Wheat Quality Specialist .....	11/27/00-present
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## Entomology

Armstrong, J. Scott - Entomologist .....	4/15/97-12/15/98
Boetel, Mark - Entomologist .....	7/1/99-present
Christie, Dean - Entomologist .....	5/1/90-1/18/91
Glogoza, Phil - Entomologist .....	6/1/92-present

Herbst, Marla - Secretary .....	9/20/93-6/9/97
Holt, Kris - Secretary .....	10/12/98-2/28/00
Kopp, Dennis - Entomologist .....	1/1/78-1/31/90
Kopp, Dianne - Secretary .....	1/6/99-11/30/00
Leferink, John - Associate Entomologist .....	4/25/91-9/30/91
McBride, Dean - Entomologist .....	3/1/65-6/30/93
Osborne, Sandy - Secretary .....	9/1/88-8/31/93
Pennington (Egbert), Diane - Secretary .....	12/1/00-present
Schroeder, Nancy - Secretary .....	12/8/85-4/10/86

## Plant Pathology

Ash, Cynthia - Plant Diagnostician .....	11/1/80-9/30/86
Billier, Cheryl Ruby - Plant Pest Diagnostician .....	5/1/97-present
Bradley, Carl - Plant Pathologist .....	4/1/02-present
Cantin, Matthew - Laboratory Technician .....	2/1/99-8/22/02
Donald, Patricia - Plant Diagnostician .....	3/16/87-9/30/87
Draper, Marty - Plant Diagnostician .....	5/1/89-3/31/97
Haspel, Roberta - Administrative Assistant .....	8/1/97-present
Lamey, Arthur - Plant Pathologist .....	4/1/77-5/31/01
McMullen, Marcia - Plant Diagnostician/ Plant Pathologist .....	3/7/83-present
Meyer, Scott - Research Specialist .....	12/15/00-present
Ullwelling, Sue - Secretary .....	11/1/82-11/30/85
Verbitsky, Darla - Secretary .....	2/2/99-present
Warner, Katherine - Secretary .....	11/26/85-5/25/90

## Plant Sciences

Aanstad, Robin- Secretary .....	1/14/02-present
Askew, Robert - Horticulturist .....	1/23/67-7/3/87
Ball, William - Agronomist .....	1/1/78-12/29/86
Bausman, Margaret - Secretary .....	8/20/83-8/14/85
Berglund, Duane - Agronomist .....	11/1/89-present
Blaskowski, Michelle - Secretary .....	4/24/00-present
Cattanach, Letha - Secretary .....	10/1/97-6/22/01
Dexter, Alan - Sugarbeet Weed Specialist .....	3/17/69-present
Erdmann, Tamara - Secretary .....	12/7/98-present
Fitterer, Scott - Research Specialist .....	10/22/98-10/31/00
Fleeker, Janet - Secretary .....	11/15/93-7/12/96
Geizler, Marilyn - Secretary .....	9/5/89-10/10/93
Heintz, Robert - Forester .....	7/1/67-6/30/87
Helm, James - Agronomist .....	3/1/84-4/30/96
Jackson, Marcus - Forester .....	5/22/97- 12/31/01
Johnson, Betty - Secretary .....	9/20/82-6/14/85
Johnson, Lisa - Secretary .....	10/4/01-present
Krebsbach, Marbell - Secretary .....	1/17/85-7/31/88
Laschkewitsch, Barbara - Research Technician ...	11/1/94-present
Luecke, John - Research Specialist .....	6/1/79-present
McWilliams, Denise - Crop Production Specialist ...	3/3/99-8/7/01
Moe, Jennifer - Secretary .....	3/29/99-2/22/02
Osborne, Sandy - Secretary .....	2/5/80-8/31/88
Palmer, Deanna - Secretary .....	10/03/85-11/30/86
Peel, Mike - Agronomist .....	11/25/96-11/16/01
Perrin, Char - Secretary .....	8/27/96-present
Peterson, Dallas - Weed Specialist .....	6/1/87-9/15/89
Quam, Vern - Natural Resources Coordinator .....	3/10/89-9/30/95
Ransom, Joel - Agronomist .....	9/16/02-present
Silcox, Cheryl - Secretary .....	11/7/88-5/9/89
Smith, Patsy - Secretary .....	5/1/91-9/30/92
Smith, Ronald - Horticulturist .....	6/15/85-present

Uhrich, Darcy - Secretary ..... 6/27/88-8/26/94  
 VanDerPuy, David - Agronomist ..... 7/23/84-3/20/87  
 Welter, Melissa - Secretary ..... 4/30/98-present  
 Zeleznik, Joseph - Forester ..... 9/16/02-present  
 Zollinger, Richard - Weed Specialist ..... 4/15/90-present

## Pesticide Programs

Bertsch, Shirley - Secretary ..... 11/2/94-5/31/98  
 Dahl, Greg - Pesticide Programs Specialist ..... 7/11/88-10/31/97  
 Odegaard, Mary Beth - Secretary ..... 5/26/98-present  
 Peterson, Jack - Assistant Pesticide Programs Coordinator ..... 10/1/86-9/1/87  
 Thostenson, Andrew - Pesticide Programs Specialist ..... 1/31/98-present  
 Uhrich, Darcy - Secretary ..... 6/27/88-8/31/94

## Soil Science

Cattanach, Alan - Sugarbeet Specialist ..... 10/16/75-6/12/98  
 Fanning, Carl - Soils Specialist ..... 4/15/79-6/30/93  
 Vasey, Ed - Soils Specialist ..... 7/1/67-3/31/92  
 Cihacek, Larry - Soils Specialist ..... 6/1/86-present  
 Clark, Glen - Soil Conservation Specialist ..... 8/1/88-6/9/89  
 Franzen, Dave - Soils Specialist ..... 6/13/94-present  
 Geiszler, Marilyn - Secretary ..... 10/11/93-present  
 Hirning, Joyce - Secretary ..... 2/24/88-11/2/92  
 Khan, Mohamed - Sugarbeet Specialist ..... 3/8/99-present  
 Orvick, Carolyn - Secretary ..... 2/8/82-1/11/88  
 Paulson-Nemzok, Sandra - Secretary ..... 11/12/92-8/11/93

## Soil Conservation

Hochhalter, Scott - Soil Conservation Specialist ... 7/1/97-present

## Agriculture Communication

Arnold, Elizabeth - Graphic Artist ..... 10/23/95-7/00  
 Bachmeir, Ronald - Duplicator Operator ..... 9/21/87-3/18/94  
 Belgarde, David - Electronic Technician ..... 4/30/90-6/30/91  
 Berg, James - Media Specialist ..... 6/1/62-7/3/87  
 Blake, Brian - Press Operator ..... 6/1/01-present  
 Brissman, Barry - Editor ..... 11/1/81-7/31/87  
 Burkhart, Connie - Graphic Artist ..... 6/1/91-10/24/97  
 Cadwell, Randy - Video Production ..... 11/13/89-1/24/97  
 Caldwell, Harold - Photographer ..... 10/16/70-2/28/93  
 Carvell, Ardis - Duplicator Operator and Clerk ..... 5/1/83-present  
 Chaska, James - Bindery Operator ..... 7/1/91-5/31/95  
 Conlon, Rhonda - Microcomputer Specialist ..... 11/1/91-4/7/00  
 Dynes, David - Duplicator Operator ..... 3/2/92-present  
 Eide, Jason - Microcomputer Specialist ..... 7/1/94-10/31/00  
 Egeberg, Roger - Programmer ..... 7/1/84-present  
 Ernst, Stan - Director ..... 3/20/95-9/7/98  
 Feight, J.J. - Editor ..... 8/25/69-11/18/85  
 Flage, Lynette - Technology Specialist ..... 3/1/01-present  
 Fry, Jon - Microcomputer Specialist ..... 8/24/98-present  
 Gartzke, Ken - Duplicator Operator ..... 3/6/95-8/31/97  
 Griffin, James - Information Technician ..... 12/11/00-6/7/02  
 Grindahl, John - Graphic Artist ..... 10/10/90-present  
 Grunenwald, Albert - Video Production ..... 1/15/90-6/14/90  
 Haasser, David - Graphic Artist ..... 7/3/00-present  
 Hanson, Adele - Clerk ..... 8/1/86-5/31/94  
 Hanson, Robyn - Secretary ..... 8/1/86-6/23/87

Hendrickson (Bartuska), Sue - Information Processing Coordinator ..... 7/1/93-present  
 Hokenson, Gail - Secretary ..... 11/21/91-present  
 Hulse, Dean - Information Specialist ..... 8/7/96-7/28/00  
 Humphrey, F.C. (Chuck) - Assistant Director, Communication ..... 7/1/77-10/1/88  
 Innes, Robert - Programmer Analyst ..... 1/7/91-3/4/94  
 Jirik, Tom - Information Specialist ..... 10/2/95-present  
 Johnson, Blair - Hardware Technician ..... 11/13/00-present  
 Johnson, Craig "CJ" - Video Production ..... 5/28/91-2/14/97  
 Johnson (Nelson), Donna - Duplicator Operator ..... 5/16/85-10/31/00  
 Kelly, Monte - Printing Manager ..... 4/1/72-present  
 Kenward, James - Department Head ..... 10/1/88-6/30/93  
 Kenward, James - Radio/TV Specialist ..... 8/15/66-9/30/88  
 Koch, Becky - Information/Marketing Specialist ... 6/3/91-present  
 Lane, Sharon - Distribution Center Supervisor ..... 3/1/86-present  
 Lilia, B.K. - Information Specialist ..... 8/21/80-6/28/85  
 Liuslea, Helen - Acting Editor ..... 12/16/85-6/30/86  
 Lusk, Doris - Receptionist/ Clerk ..... 5/7/79-7/31/86  
 Mattern, Rich - Information Specialist ..... 12/4/00-present  
 McCarthy, Kathy - Secretary ..... 5/22/74-11/30/90  
 Miller, Mike - Hardware Specialist ..... 5/1/00-present  
 Moran, Gary - Editor ..... 9/1/69-9/1/02  
 Olson, Jeri - Clerk ..... 2/25/74-7/31/86  
 Pederson, Chad - Video Production ..... 7/1/97-8/18/00  
 Ranum, Jerry - Hardware Technician ..... 5/22/00-present  
 Reisenauer, Sherry - Graphic Artist ..... 9/24/84-8/31/90  
 Rice, David - Acting Head ..... 7/14/93-3/19/95  
 Rice, David - Computer Applications Specialist and Webmaster ..... 9/30/84-present  
 Rostad, Jerry - Video Specialist ..... 2/1/88-3/1/00  
 Roisum, Steve - Broadcast Specialist ..... 11/1/96-9/24/97  
 Rolie, John - Press Operator ..... 10/15/84-present  
 Roy, Ronald - Duplicator Operator ..... 7/19/84-4/4/85  
 Saxowsky, David - Interim Director and Director . 9/8/98-present  
 Selberg (Carr), Cathy - Broadcast Announcer .... 1/9/84-10/16/87  
 Stark, Steven - Visuals Specialist ..... 8/1/80-5/30/87  
 Stenhjem, Steve - Computer Specialist ..... 11/4/91-7/31/00  
 Struble, Lori - Media Librarian ..... 9/6/94- 9/24/98  
 Sundeen, Bruce - Video Production ..... 5/27/97-present  
 Sweeny, Mike - Video Production ..... 6/25/90-3/29/91  
 Swenson, Andrew - Computer Specialist ..... 1/7/85-7/31/91  
 Tanner, Debbie - Graphic Artist ..... 4/3/78-present  
 Trittin, Bev - Secretary ..... 2/1/84-9/11/92  
 Volk, Melody - Word Processing Operator ..... 10/22/84-7/8/88  
 Vernon (Deichert), Agnes - Graphic Artist ..... 8/22/88-present  
 Vreugdenhil, Harvey - Computer Technician ..... 7/1/95-present  
 Wald, Randy - Video Production ..... 8/6/01-present  
 Wennblom, Steve - Radio News ..... 8/11/99-00

## Institute for Business and Industry Development

Eide, Wallace - Director ..... 8/1/89-present  
 Eshetu, Mahnaz - Marketing Specialist ..... 11/12/91-11/28/97  
 Golz, Theresa - Marketing Research Specialist ... 12/6/91-4/30/93  
 Goplen, Sherman - Specialist ..... 5/15/94-5/15/00  
 Holstun, Jennifer - Extension Associate ..... 1/1/95-8/30/96  
 Howell, Jenni - Secretary and Education Program Coordinator ..... 1/10/94-9/15/99

Leistriz (Hamm), Rita - Socioeconomic  
 Research Specialist/Editor ..... 2/1/90-9/30/99  
 Peterson, Sue - Secretary ..... 1/2/96-present  
 Swanson, Richard - Small Business Specialist ..... 8/1/92-7/31/95

## Nutrition, Youth and Family Science

### Center for 4-H Youth Development

Aakre, Dean - Activity Coordinator ..... 6/15/88-present  
 Almlie, Curt - N.D. 4-H Foundation Director ..... 9/1/84-4/28/95  
 Amundson (Bitz), Alice - Secretary ..... 9/21/98-present  
 Bunt, Arlene - N.D. 4-H Foundation  
 Development Director ..... 10/2/95-4/3/01  
 Courneya, Joe - Educational Design Specialist .... 11/1/98-present  
 Crow, Linda - Curriculum Specialist ..... 6/7/71-1/04/02  
 Dale, Penny - Volunteer Development Specialist .. 9/1/87-9/15/89  
 Flom, Stanna - Office Manager ..... 7/9/01-present  
 Fragodt, Alvin - Youth Specialist ..... 9/1/74-7/3/87  
 Fugelstad, Amy - International Programs ..... 3/1/92-4/5/02  
 Geyer, Joan - Secretary ..... 9/1/89-10/20/97  
 Goodyear, Char - Secretary ..... 6/30/80-5/15/88  
 Griesbach, Mark - Program Assistant ..... 5/28/84-10/7/86  
 Hankel, Wayne - Youth Specialist ..... 7/16/86-6/30/93  
 Haugen, Lori - Secretary ..... 9/20/83-12/31/86  
 Hauser, Rick - Youth Specialist ..... 2/1/72-7/3/87  
 Holm-Peterson, Linda - Self Esteem Coordinator . 8/1/89-6/30/93  
 Johnson, Thema - Secretary ..... 3/7/80-6/30/99  
 Jordheim-Bregel, Lynette - Secretary ..... 12/2/95-4/10/01  
 Kennelly, Pat - Youth Specialist ..... 4/1/74-12/31/97  
 Klein, Faye - Administrative Assistant ..... 3/29/94-11/23/01  
 Lee, Carla - Activity Coordinator ..... 11/25/91-8/31/93  
 Lesmeister, Marilyn - Leadership Specialist ..... 12/1/84-12/29/00  
 Mattson, Kent - Camping Coordinator ..... 3/18/92-9/30/93  
 McSparron, Tom - N.D. 4-H Foundation  
 Development Director ..... 6/11/01-present  
 Milakovic, Angie - 4-H Specialist ..... 1/02/02-present  
 Novotny, Marlys - Secretary ..... 9/1/81-present  
 Odegaard, Mary Beth - Secretary ..... 11/9/90-5/25/98  
 Odegard, Peg - Secretary ..... 10/27/80-2/1/89  
 Stark, Carrie - Youth Development Specialist ..... 10/1/02-present  
 Vetter, Rachelle -  
 Leadership/Volunteer Development ..... 2/4/02-present  
 Wagner, Raymond - Youth Specialist ..... 5/1/72-7/3/87

### Child Development and Family Science

Bakken, Karen - Program Administrator ..... 5/1/98-6/30/99  
 Borkowski, Theresa - Secretary ..... 4/27/98-present  
 Bosch, Geri - Family Life Specialist ..... 9/1/91-6/30/92  
 Brotherson, Sean - Family Science Specialist ..... 9/1/98-present  
 Bushaw, Kim - Program Specialist ..... 94-6/30/99  
 Christianson, Milan - Family Life Specialist ..... 8/1/72-3/31/89  
 Danielson, Helen -  
 Child Development Specialist ..... 12/1/90-6/30/99  
 Gebeke, Debra - Family Life Specialist ..... 9/1/90-7/31/97  
 Hawley, Vicki - Program Administrator ..... 5/1/98-6/30/99  
 Hemberger, Kimberly - Program Coordinator ..... 5/1/98-6/30/99  
 Jacobson, DonnaRae - Family Science Specialist . 8/17/92-1/15/01  
 Pankow (Hendrickson), Debra -  
 Family Economics Specialist ..... 11/14/88-present

## Expanded Food and Nutrition Education Program (EFNEP) & Family Nutrition Program (FNP)

Fundingsland, Suzanne - EFNEP Specialist ..... 6/1/83-9/13/02  
 Holes-Dickinson, Barbara - FNP Specialist ..... 5/6/96-present  
 Lymburner, Lori -  
 Interim Operations Manager, EFNEP ..... 2/1/98-2/1/99  
 Sahr (Hauck), Eunice -  
 Program Design Specialist ..... 7/1/93-4/30/94  
 Tweeten, Margaret - EFNEP-FNP Coordinator ... 11/1/99-present  
 Ussatis, Rita - Program Developer ..... 3/1/92-4/30/92  
 Wangler, Diana - Administrative Assistant ..... 5/8/95-present

## Health, Nutrition and Exercise Sciences

Beattie, Sam - Food Safety Specialist ..... 8/1/95-12/31/95  
 Beck, Pat - Nutrition Specialist ..... 7/1/70-5/30/97  
 Bond, Joye - Nutrition Specialist ..... 1/14/91-6/30/93  
 Differding, Sherry - Secretary ..... 8/5/91-8/2/98  
 Edwards, Jane - Nutrition Specialist ..... 2/1/02-present  
 Eppler, Hope - Secretary ..... 2/14/00-present  
 Garden-Robinson, Julie -  
 Food and Nutrition Specialist ..... 8/15/94-present  
 Heller, Karen - Food and Nutrition Specialist ..... 6/1/78-8/3/90  
 Kaufman, Nancy - Food and Nutrition Specialist .. 1/3/78-7/15/86  
 Merkel, Joyce - Nutrition Specialist ..... 5/1/96-5/21/99  
 Millette, Rose Anne - Nutrition Journalist ..... 6/9/69-12/31/86  
 Reilly, Tom - Food and Nutrition Specialist ..... 8/15/94-6/30/95

## Textiles, Clothing and Home Furnishings

Bach, Annette - Home Furnishings Specialist ..... 7/1/73-7/30/93  
 Braaten, Ann - Textiles Specialist ..... 8/15/94-6/30/95  
 Gulbrandson, Ruth - Clothing Specialist ..... 9/1/69-7/2/71  
 Winge, Jane - Clothing Specialist ..... 10/1/64-6/30/87

## Area Extension Specialists and Staff

Aakre, Dwight - Area Farm Management Agent . 7/10/87-6/30/87  
 Bjelland, Ellen - Area Family Systems Specialist .... 2/1/91-5/31/92  
 Brandt, Katherine - Area Home Economist ..... 7/1/84-8/25/85  
 Bultsma, Paul - Area Grasslands Agent ..... 4/16/82-3/3/89  
 Burbank, Wayne - Area Irrigation Agent ..... 6/1/73-6/30/87  
 Carlson, Don -  
 Area Dairy Retention Coordinator ..... 8/12/91-8/31/94  
 Dhuyvetter, Dan - Area Livestock Agent ..... 6/12/89-10/16/90  
 Dhuyvetter, John -  
 Area Specialist, Livestock Systems ..... 8/12/91-present  
 Dunlop, Ellen - Area Specialist, Family Systems .... 5/1/90-5/31/00  
 Ellefson, Kari - Parenting Resources Coordinator . 1/25/00-6/2/00  
 Endres, Greg - Area Specialist, Cropping Systems . 9/1/92-present  
 Fisher, Jay- Area Agronomy Agent ..... 6/1/78-6/30/90  
 Fleener, Judith -  
 Area Home Economics Instructor ..... 2/18/68-2/28/85  
 Grade, Nancy - Area Home Economist ..... 9/1/85-8/31/86  
 Gregoire, Terry -  
 Area Specialist, Cropping Systems ..... 4/1/78-present  
 Hankel, Wayne - Area 4-H Agent ..... 2/15/69-6/30/86

**Harbour, James** -  
Area Specialist, Crop Protection ..... 11/12/97-3/31/99

**Hill, Chet** - Area Specialist, Value Added Ag ..... 3/5/01-present

**Hinrichs, Darwin** - Area Specialist, Water Quality 2/1/91-3/31/98

**Hinrichs, Marlin** -  
Area Specialist, Cropping Systems ..... 6/15/84-6/30/94

**Hla, Aung** - Area Specialist, Irrigation ..... 9/1/98-present

**Hoppe, Karl** - Area Specialist, Livestock Systems 6/18/90-present

**Hornseth, Judith** - Area Home Economist ..... 11/1/73-9/7/82

**Kleinsasser, Doreen** - Area Home Economist ..... 7/1/84-9/30/87

**Knodel, Jan** - Area Specialist, Cropping Systems . 1/12/98-present

**Lechler, Verona** - Area Community  
Leadership Coordinator ..... 10/1/91-6/30/96

**Linderman, Charles** - Area Specialist,  
Livestock Waste Management ..... 6/1/01-present

**Manske, Llewellyn** -  
Area Specialist, Range Management ..... 7/1/92-present

**Manthei, O'Detra** - Area Home Economist ..... 7/1/85-9/30/89

**Markegard, Brian** - Area Specialist,  
Livestock Facility Engineer ..... 4/15/02-present

**McKay, Kent** - Area Specialist, Cropping Systems. 3/1/91-present

**Melhoff, Randy** -  
Area Specialist, Value-Added Ag ..... 1/19/98-6/30/00

**Misterek, Barbara** - Area Home Economist ..... 12/2/85-6/30/89

**Narum, Linda** - Area Home Economist ..... 7/1/70-7/1/01

**Nordby, Don** - Area Livestock Specialist ..... 9/1/92-8/31/93

**Peterson, Don** - Director,  
Financial Analyst Project ..... 6/1/76-1/31/84

**Poland, Chip** -  
Area Specialist, Livestock Systems ..... 10/11/94-present

**Preston, Duane** - Area Potato Agent ..... 7/1/74-present

**Radke, Rudy** - Area Specialist,  
Ag Diversity/High Value Crops ..... 3/11/92-present

**Ringwall, Kris** - Area Livestock Specialist ..... 11/26/84-8/31/92

**Rosencrans, Bill** - Area Leadership  
Development Specialist ..... 1/1/91-6/30/93

**Schmaltz, Kathleen** -  
Parenting Resources Coordinator ..... 12/6/01-present

**Sellie, Carol** - Area Home Economist ..... 9/1/68-6/30/93

**Sobolik, Frank** - Area Soils Agent ..... 7/1/74-8/14/89

**Sorlein, Amy** - Area Home Economist ..... 7/1/84-8/30/91

**Stecker, John** - Area Agronomist ..... 5/1/85-8/31/87

**Steffan, Annette** - Area 4-H Youth Agent ..... 10/1/92-12/31/93

**Steffan, Charles** - Area Beef/Range Specialist... 12/17/90-2/29/92

**Theuer, Debra** - Parenting Resources Coordinator 8/1/97-present

**Toman, Norman** - Area Farm Management Agent .. 8/1/84-9/1/90

**Tweeten, Kathy** - Area Specialist,  
Leadership Development ..... 9/1/92-6/30/98

**Weidrich, Janelle** -  
Parenting Resources Coordinator ..... 3/27/00-9/28/00

**Weigel, James** - Area Specialist, Irrigation ..... 11/1/87-8/8/97

**Williams, Marie** -  
Area Home Economics Instructor ..... 9/19/77-10/5/85

**Zarnstorff, Mark** -  
Area Specialist, Crop Production ..... 8/1/94-11/17/99

## County Extension Staff

### Adams

**Dohrmann, Josh** - Extension Agent ..... 3/20/95-7/31/97

**Friez, Reva** - Nutrition Education Agent, FNP .... 4/15/98-1/28/02

**Gruenrich, Randy** - Extension Agent ..... 4/1/91-12/31/94

**Handegard, Jesse** - Extension Agent ..... 2/15/01-present

**Markegaard, Wayne** - Extension Agent ..... 9/15/97-11/14/00

**Rosencrans, Wilfred** - County Agent ..... 12/1/68-12/31/90

**Roth, Beth** - Extension Agent ..... 6/3/02-present

**Svingen, Colleen** - Extension Agent ..... 7/6/98-9/16/01

**Whitmer, Mary** - Extension Agent ..... 1/2/90-12/15/97

### Barnes

**Bjelland, Ellen** - Extension Agent ..... 5/1/98-present

**Davis, Brenda** -  
Nutrition Education Assistant, FNP ..... 10/1/99-present

**Grueneich, Randy** - Extension Agent ..... 12/1/02-present

**Josephson, Kirby** - County Agent ..... 7/9/84-6/15/87

**Machart, Pat** - Extension Agent ..... 11/5/84-12/31/98

**Strom, Bryan** - Agent-in-Training ..... 1/15/90-10/31/91

**Stuber, Lester** - Extension Agent ..... 6/1/84-6/15/98

**Vachal, Shawn** - Extension Agent ..... 9/1/98-10/31/01

### Benson

**Boerner, Colleen** - Extension Agent and  
Nutrition Education Agent, FNP ..... 5/1/96-4/15/01

**Cavanaugh, Ruth** - Nutrition Education  
Assistant, EFNEP ..... 1/15/70-11/30/89

**Finley, Carol** - Nutrition Education  
Assistant, EFNEP ..... 1/13/97-present

**Geske, Judy** - Nutrition Education  
Assistant, EFNEP ..... 3/1/71-12/31/86

**Hanson, Michael** - County Agent ..... 12/1/83-6/30/86

**Hegland, Patricia** - EFNEP ..... 7/1/92-5/21/93

**Knoke, Scott** - Extension Agent ..... 8/17/92-present

**Langrud, Brenda** - Extension Agent ..... 10/1/89-2/29/96

**Larson, Adeline** - Nutrition Education  
Assistant, EFNEP ..... 3/1/69-1/20/92

**Lawrence, Viola** - Nutrition Education  
Assistant, EFNEP ..... 10/1/73-12/31/86

**Liane, Mike** - County Agent ..... 7/1/84-5/3/92

**Schmidt, Camie** - Nutrition Education  
Assistant, EFNEP ..... 12/14/93-9/16/96

**Steinhaus, Jenny** - Extension Agent and  
Nutrition Education Agent, FNP ..... 7/2/01-present

**Woyen, Jane** - Nutrition Education  
Assistant, EFNEP ..... 7/1/92-4/30/03

### Bottineau

**Bachmeir, Theresa** - Assistant County Agent ..... 10/1/84-8/31/85

**Hoffman, Karen** - Nutrition Education  
Assistant, FNP ..... 1/02/97-9/30/98

**Lamb, Carmelita** -  
4-H Horse Program Assistant ..... 1/1/92-9/30/00

**Monson, Karla** - Extension Agent ..... 4/1/82-present

**Schroeder, J.W.** - County Agent ..... 11/1/81-10/15/91

**Semler, Tim** - Extension Agent ..... 12/1/91-present

**Wall (Coleman), Loretta** - Nutrition  
Education Assistant, FNP ..... 2/22/99-present

## Bowman

Buckley, Jackie - County Agent ..... 6/1/81-8/31/90  
Gaebe, Randy - Extension Agent ..... 8/12/98-2/11/00  
Nordby, Donald - County Agent ..... 11/1/90-8/31/92  
Rettinger, Brenda - Extension Agent ..... 10/2/00-present  
Runner, JoAnn - Extension Agent and  
Nutrition Education Agent, FNP ..... 1/2/90-present  
Thompson, Carmel - Extension Agent ..... 1/1/93-5/3/98

## Burke

Anderson, LoAyne - County Agent ..... 4/1/86-10/31/86  
Anderson (Morse), Peggy - Extension Agent ..... 9/1/80-present  
Dhuyvetter, Dan - County Agent ..... 11/1/86-10/31/86  
Folske, Dan - Extension Agent ..... 8/7/89-present  
Jacobson, Shelbey - Nutrition Education  
Assistant, FNP ..... 10/16/00-present

## Burleigh

Aune, Eleanore - Nutrition Education  
Assistant, EFNEP ..... 7/6/71-9/30/92  
Bosch (Andreson), Geraldine -  
Home Economist ..... 6/15/81-8-31/89  
Brown, Keith - County Agent ..... 11/25/85-8/31/87  
Haadem, ElRoy - Extension Agent ..... 1/1/76-present  
Hennessy, Jill - Extension Agent ..... 8/9/99-5/23/00  
Hetzel, Joann - Home Economist ..... 12/1/89-9/22/91  
Hjelmstad, Donna - Program Assistant, FNP ..... 3/6/95-3/20/98  
Hoffman, Karen - Nutrition Education  
Assistant, FNP ..... 10/1/98-present  
Kraft, June - Extension Agent ..... 4/1/92-present  
Miller, Flora May - Extension Agent ..... 1/17/95-12/31/95  
Palczewski, Cathy - Extension Agent ..... 10/16/00-present  
Perkins, Marjorie - Nutrition Education  
Assistant, FNP ..... 1/28/70-present  
Senger, Vera - Assistant County Agent ..... 9/1/79-8/31/89  
Vander Wal (DeVries), Jamie - Nutrition  
Education Agent, FNP ..... 4/30/01-present  
VanHorn, Mark - 4-H Youth Agent ..... 12/1/90-7/10/98

## Cass

Acosta (Johnson), DeAnn - 4-H Youth Agent .... 12/7/87-present  
Anderson, Arlene - Nutrition Education  
Assistant, EFNEP ..... 11/2/70-11/30/85  
Bahls, Callie - 4-H Youth Assistant ..... 7/23/01-12/13/02  
Behrens, Earl - Natural Resources Assistant ..... 4/1/90-6/30/93  
Bergo, Kelly - Home Economist ..... 5/1/81-7/15/87  
Bernstein, Pam -  
Parenting Resources Coordinator ..... 8/1/95-10/27/99  
Cogdill, Brad - Extension Agent ..... 6/1/90-present  
Connelly (Tarbell), Rochelle - Nutrition  
Education Assistant, EFNEP ..... 11/9/92-6/16/00  
Dale, Penny - 4-H Youth Agent ..... 2/18/86-8/31/87  
DeCock, David - Horticulturist ..... 10/18/76-present  
Dewald, Connie - Home Economist ..... 9/1/92-8/31/93  
Elliot, Evelyn - Nutrition Education  
Assistant, EFNEP ..... 1/16/71-7/31/92  
Hauck, Duane - County Agent ..... 2/1/84-12/31/89  
Hodous, Bill - Extension Agent ..... 4/5/02-1/31/03  
Johanson, Darla - Nutrition Education  
Assistant, EFNEP ..... 3/14/83-12/31/86  
Kallhoff, Angeline - 4-H Youth Assistant ..... 8/8/01-6/4/02

Koenig, Cathi - Program Assistant, EFNEP ..... 10/12/88-10/17/89  
Kringler, John - Extension Agent ..... 6/1/91-present  
Lawler, Becki - Nutrition Education  
Assistant, FNP ..... 3/1/99-present  
Linke, Elaine - Nutrition Education  
Assistant, EFNEP ..... 2/1/69-11/6/92  
Liusk, Helen - 4-H Youth Agent ..... 9/15/80-12/15/85  
Lundquist (Lippincott), Denise - Nutrition  
Education Assistant, EFNEP ..... 9/18/00-present  
Newman, Julie - Nutrition Education  
Assistant, EFNEP ..... 1/4/93-8/31/93  
Norby (Grove), Shauna -  
Parenting Resources Coordinator ..... 10/1/02-present  
Nordick, Maxine - Extension Agent ..... 1/4/95-present  
Norenberg (Nunes), Kristy -  
Program Assistant, FNP ..... 12/4/95-6/10/98  
Radke, Rudy - County Agent ..... 10/1/74-3/10/91  
Rasmussen, Verna - Urban 4-H ..... 8/1/75-11/30/8  
Sigala, Dorinda - Nutrition Education  
Assistant, EFNEP ..... 11/9/92-1/25/00  
Smith, Sharon - Extension Agent ..... 8/6/01-12/13/02  
Ussatis, Rita - Extension Agent ..... 9/1/00-present  
Volk, Stephanie - Nutrition Education  
Assistant, FNP ..... 9/18/00-present  
Weed, Connie - Extension Agent ..... 8/15/93-1/31/00  
Westra, Jack - Urban 4-H ..... 6/1/73-12/31/86  
Zurn, Susan - Extension Agent ..... 2/1/95-6/30/99

## Cavalier

Beneda, Ron - Extension Agent ..... 10/1/79-present  
Emery, Steve - Assistant County Agent ..... 9/1/85-7/15/87  
Lukach, Macine - Extension Agent and  
Nutrition Education Agent, FNP ..... 7/13/92-present  
Ussatis, Rita - Home Economist ..... 8/24/87-8/31/91  
Weston, Dale - Agent-in-Training ..... 2/1/92-4/30/92

## Dickey

Bruns, Jodi - Extension Agent and  
Nutrition Education Agent, FNP ..... 1/7/02-present  
Elhard, Eugene - Extension Agent ..... 5/4/74-present  
Klapperich, Cindy - Extension Agent ..... 1/1/89-3/15/01  
Tufton, Patricia -  
Nutrition Education Assistant, FNP ..... 4/1/99-8/31/01

## Divide

Anderson (Morse), Peggy - Extension Agent ..... 9/1/80-present  
Biewer, Leonard - County Agent ..... 10/1/87-9/11/87  
Brown, Keith - Extension Agent ..... 7/1/93-present  
Jacobson, Shelbey - Nutrition Education  
Assistant, FNP ..... 10/16/00-present  
Weston, Dale - Agent-at-Large ..... 5/1/92-4/29/94

## Dunn

Dohrmann, Josh - Extension Agent ..... 8/1/97-3/3/00  
Hellandsaas (Anderson), Marcia -  
Extension Agent ..... 11/1/89-present  
Keenaghan, Susie -  
Nutrition Education Agent, FNP ..... 1/12/00-present  
Linnell, Lavern - County Agent ..... 11/15/62-6/30/93  
Roy, Dolores - Nutrition Education Agent, FNP . 12/5/88-present  
Slavik, Ann - Program Assistant ..... 6/7/82-8/13/82  
Twist, David - Extension Agent ..... 5/1/00-present

## Eddy

Anderson, Donna - Extension Agent ..... 6/1/00-present  
Anderson, Sheri -  
Nutrition Education Assistant, FNP ..... 10/8/98-present  
Becker, Tim - Extension Agent ..... 4/1/98-present  
Braunberger, Carol - Extension Agent ..... 8/1/96-1/14/00  
Mehlhoff, Randy - Extension Agent ..... 1/1/94-1/18/98  
Ulmer, Al - County Agent ..... 4/29/83-10/3/93

## Emmons

Hanson, Michael - Extension Agent ..... 7/1/86-present  
Markegard, Wayne - Extension Agent ..... 11/15/00-present  
Nieuwsma, Lynette - County Agent ..... 5/17/76-4/25/86  
Rath-Wald, Carmen -  
Nutrition Education Agent, FNP ..... 6/15/92-present  
Schaar, Margaret - Extension Agent ..... 1/1/95-present

## Fort Berthold

Bladow, Leon - Ag Program Assistant ..... 8/15/91-1/20/93  
Cummins-Chase, Madeline - Nutri. Ed.  
Assistant, EFNEP and Ext. Agent ..... 6/1/92-3/31/03  
Danks, Elsie - Nutrition Education  
Assistant, EFNEP ..... 10/28/74-12/31/91  
Ferris, Bill - Extension Agent ..... 9/1/96-12/27/00  
Fredericks, Mary - Extension Agent ..... 8/1/91-10/20/95  
Gjermundson, Paul - Extension Agent ..... 5/15/01-present  
Good Bear, Mary Edith - Nutrition  
Education Assistant, EFNEP ..... 10/1/72-3/24/89  
Johnston (Bates), Joleen - Home Economist ..... 6/1/79-12/31/92  
Little Soldier, Rosella -  
Nutrition Education Assistant, EFNEP ..... 4/1/72-8/11/86  
Rhode, Anita - Extension Agent ..... 6/1/69-12/31/02  
Sand, Delores - Nutrition Education  
Assistant, EFNEP ..... 11/1/69-present  
Soiseth, Keith - County Agent ..... 6/1/68-10/31/83  
Wells, Lila - Nutrition Education  
Assistant, EFNEP ..... 3/23/98-8/29/02

## Foster

Anderson, Donna - Extension Agent ..... 6/1/00-present  
Anderson, Sheri -  
Nutrition Education Assistant, FNP ..... 7/1/99-present  
Braunberger, Carol - Extension Agent ..... 8/1/96-1/14/00  
Froelich, Kurt - Extension Agent ..... 10/1/91-present  
Gienger, Clinton - County Agent ..... 1/1/76-8/4/91

## Golden Valley

Duerre, Dan - Extension Agent ..... 10/15/91-5/31/98  
Lechler, Verona - Home Economist ..... 7/1/84-9/30/91  
Mattson, Walter - County Agent ..... 5/15/51-9/20/91  
Peterson, Harvey - Extension Agent ..... 9/14/98-present  
Roy, Dolores - Nutrition Education Agent, FNP . 12/5/88-present

## Grand Forks

Bernhardt, Donna - Extension Agent and  
Nutrition Education Agent, FNP ..... 2/12/01-present  
Bosman, Donna - Nutrition Education  
Assistant, EFNEP ..... 11/1/71-4/1/94  
Christopher, Mary - Nutrition Education  
Assistant, EFNEP ..... 5/9/89-1/1/94  
Davidson, Morris - Extension Agent ..... 10/16/76-present

Driessen, Daniel - Extension Agent ..... 3/1/01-present  
Edwards, Dale - County Agent ..... 6/15/76-2/24/89  
Flage, Lynette - Home Economist ..... 8/1/94-2/28/01  
Grabanski, Ray - County Agent ..... 5/30/86-8/31/89  
Grove, Shauna - Acting Extension Agent ..... 9/18/00-9/30/02  
Hill, Richard - Horticulturist ..... 4/5/89-9/30/92  
Huot, Willie - Extension Agent ..... 6/1/92-present  
Jones, Kim - 4-H Youth Agent ..... 6/11/90-11/1/00  
Kringler (Knudson), Jan - Home Economist ..... 12/10/84-4/30/90  
Lever, Briana - Acting Extension Agent ..... 1/3/00-10/31/00  
Nichols, Ken - Extension Agent ..... 8/19/96-present  
Nilles, Dawnita -  
Parenting Resources Coordinator ..... 10/2/00-present  
Sagaser, Steve - Horticulturist ..... 1/19/93-present  
Smith, Lori - Nutrition Education  
Assistant, EFNEP ..... 2/15/86-3/31/89  
Stover, Sherry -  
Nutrition Education Agent, FNP ..... 11/13/95-present  
Stroh, Rodney - Horticulturist ..... 12/1/83-12/31/88  
Thibert, Jeanne - Nutrition Education  
Assistant, EFNEP ..... 11/7/88-9/30/89  
Tweten, Margaret - Extension Agent ..... 5/1/80-present

## Grant

Becker, Tim - Extension Agent ..... 1/10/94-3/31/98  
Bichler, Doug - Extension Agent ..... 1/13/03-3/18/05  
Erickson, Karllyle - County Agent ..... 8/1/85-8/31/93  
Friez, Reva - Extension Agent ..... 10/1/97-4/14/98  
Grade, Nancy - Home Economist ..... 11/4/91-3/5/96  
Griffin, Amy - Extension Agent ..... 10/8/96-8/18/97  
Hochhalter, Martin - Extension Agent ..... 9/19/01-11/30/02  
Hoines (Tronson), Vanessa - Home Economist .... 1/14/85-1/7/90  
Isbell, Sue - Extension Agent ..... 1/02/03-present  
Miller, Carmel - 4-H Youth Agent ..... 6/1/98-7/31/01  
Pfutzenreuter, Rosemary - Home Economist ..... 7/9/90-8/21/91  
Sturn, Gerald - County Agent ..... 6/1/76-5/31/86  
Weishaar, Sarah - Extension Agent and  
Nutrition Education Agent, FNP ..... 9/8/98-5/1/02

## Griggs

Gunkel, Leigh - Nutrition Education  
Assistant, FNP ..... 11/27/95-present  
McElroy, Teresa - Extension Agent ..... 1/1/86-6/29/01  
Senger, Vernon - Acting County Agent ..... 9/1/85-9/1/86  
Swenson, John - Extension Agent ..... 6/1/80-present

## Hettinger

Barondeau, Dwain - Extension Agent ..... 10/11/90-present  
Brummond, Brad - County Agent ..... 6/25/84-1/31/88  
Friez, Reva - Extension Agent and  
Nutrition Education Agent, FNP ..... 4/1/97-1/28/02  
Misterek, John - County Agent ..... 5/16/88-6/30/90  
Nasset, Cheryl - Nutrition Education  
Assistant, FNP ..... 4/19/95-9/30/95  
Roth, Beth - Extension Agent ..... 6/3/02-present  
Urlacher, Cheryle - Nutrition Education  
Assistant, FNP ..... 12/22/95-10/28/97

## Kidder

Becker, Linda - Extension Agent ..... 5/1/94-5/31/95  
Brummond, Brad - County Agent ..... 2/1/88-8/31/92  
Gross, Joe - Extension Agent ..... 1/10/95-1/31/01  
Hanson, Tom - Extension Agent ..... 1/1/93-6/14/96  
Hoffman, Karen - Nutrition Education  
Assistant, FNP ..... 10/1/99-12/21/00  
Kleven, Craig - Extension Agent ..... 7/19/01-present  
Martin, Margie- Home Economist ..... 2/5/86-12/31/86  
Miller, Floramay - Extension Agent ..... 9/1/95-present  
Misek, Kevin - County Agent ..... 6/1/81-9/15/87  
Vander Wal (Devries), Jamie -  
Nutrition Education Agent, FNP ..... 4/30/01-present

## LaMoure

Anderson, Kaylyn - Extension Agent and  
Nutrition Education Agent, FNP ..... 1/1/90-present  
Buck, Gerald - County Agent ..... 2/1/65-6/30/93  
Ulmer, Al - Extension Agent ..... 10/4/93-present

## Logan

Beyer, Janelle - Extension Agent ..... 10/1/89-8/19/90  
Driessen, Dan - Extension Agent ..... 10/11/98-2/28/01  
Gaebe, Randy - Extension Agent ..... 4/17/95-8/11/98  
Gross, Andy - Extension Agent ..... 5/1/01-present  
Martin, Roger - County Agent ..... 10/1/60-7/13/92  
Norstog, Jon - Extension Agent ..... 8/1/92-11/10/94  
Rath-Wald, Carmen - Extension Agent and  
Nutrition Education Agent, FNP ..... 6/15/92-present  
Wald, Sue - Extension Agent ..... 1/17/91-5/31/92

## McHenry

Bachmeier, Theresa - County Agent ..... 9/1/85-6/30/87  
Dragseth, Doug - Extension Agent ..... 2/1/00-6/21/02  
Dugan-Dibble, Raquel - Extension Agent ..... 10/1/02-present  
Green, Merry - Extension Agent ..... 5/1/89-present  
Kaylor, Carolee - Nutrition Education  
Assistant, FNP ..... 6/22/98-present  
Knudson, Kate - Program Assistant, FNP ..... 12/4/95-1/9/98  
Miller, Thomas - County Agent ..... 6/1/79-6/30/85  
Roe, Colleen - Home Economist ..... 12/20/83-9/30/88  
Rose, Mike - Extension Agent ..... 9/12/88-1/18/98  
Thilmony, Anthony - County Agent ..... 12/1/87-4/30/88

## McIntosh

Ketterling, Cynthia - Area Self Esteem Coord.  
& Nutrition Education Agent, FNP ..... 8/1/88-3/31/91  
Klein, William - Extension Agent ..... 7/1/79-present

## McKenzie

Hellandsaas, Marcia - Extension Agent ..... 11/1/89-present  
Keenhagen, Susie - Nutrition Education  
Agent, FNP ..... 1/12/00-present  
Naze, Dale - Extension Agent ..... 3/6/84-present  
Slavik, Ann - Home Economist ..... 4/1/88-8/11/89

## McLean

Carpentier, Patrick - Extension Agent ..... 3/6/84-present  
DeVries, Jamie - Extension Agent and  
Nutrition Education Agent, FNP ..... 3/1/99-3/31/01  
Gulleson, Connie - Extension Agent and  
Nutrition Education Agent, FNP ..... 2/4/02-2/28/03  
Hudson-Schenfisch, Julie - Home Economist ..... 7/1/84-8/30/91

## Mercer

Becker, Andrea - Extension Agent ..... 12/13/99-12/9/02  
Hochhalter, Jeanne - Home Economist ..... 5/4/92-9/30/95  
Kadrmass, Dena - Extension Agent ..... 2/16/99-6/15/99  
Maine, Clifford - County Agent ..... 1/1/88-3/13/89  
Pfenning, Jody - Nutrition Education  
Assistant, FNP ..... 11/1/96-present  
Ramsey, David - County Agent ..... 11/8/82-8/31/87  
Schmidt, Bruce - Extension Agent ..... 6/12/89-present  
Sorlein, Amy - Home Economist ..... 7/1/84-7/1/91  
Weidrich (Beyer), Janelle - Extension Agent ..... 1/8/96-8/24/98

## Morton

Buckley, Jackie - Extension Agent ..... 9/1/90-present  
Carlson, Sarah - Program Assistant, FNP ..... 3/6/95-12/31/95  
Giese, Hildegard - Program Assistant, EFNEP ... 1/14/74-12/31/86  
Grosz, Peggy - Nutrition Education  
Assistant, FNP ..... 12/5/95-present  
Hennessy, Jill - 4-H Agent ..... 8/9/99-5/23/00  
Hoines (Tronson), Vanessa - Extension Agent ..... 1/8/90-present  
Johnston (Bates), Joleen - Home Economist ..... 6/1/80-11/15/89  
Lechler, Verona - Extension Agent ..... 5/27/97-4/12/01  
Luther, Darrel - County Agent ..... 6/1/85-7/31/87  
Markegaard, Wayne - Extension Agent ..... 11/15/00-present  
Nelson (Affolter), Genera -  
Program Assistant, EFNEP ..... 5/5/80-12/31/86  
Palczewski, Cathy - Extension Agent ..... 10/16/00-present  
Schmidt, Cherry - Urban 4-H ..... 8/1/83-9/30/86  
Sorlein, Amy - Home Economist ..... 9/1/91-8/31/92  
Stewart, John T. - County Agent ..... 11/1/69-6/30/90  
VanHorn, Mark - Urban 4-H ..... 12/1/90-7/10/98

## Mountrail

Alvstad, Lana - Nutrition Education  
Assistant, FNP ..... 10/1/97-1/31/99  
Anderson (Morse), Peggy - Home Economist ..... 9/1/80-11/16/89  
Dhuyvetter, John - County Agent ..... 6/1/84-6/30/87  
Eraas, Ken - County Agent ..... 11/16/87-12/31/93  
Hennessy, James - Extension Agent ..... 4/11/94-present  
Littlefield, Krista - Extension Agent and  
Nutrition Education Agent, FNP ..... 5/11/99-present  
Wilhelmi, LaRita - Home Economist ..... 4/8/91-12/31/93

## Nelson

Berdal, Kristi - Extension Agent ..... 10/1/89-7/12/02  
Holm, Morris - County Agent ..... 11/1/66-6/30/93  
Peterson, Nels - Extension Agent ..... 6/1/94-present

## Oliver

Freidig, Tracy - Extension Agent ..... 6/1/92-present  
Johnson, Timothy - County Agent ..... 7/1/74-8/17/87  
Pfliger, Burton - County Agent ..... 1/1/88-11/30/92  
Schmidt, Richard - Extension Agent ..... 12/1/93-present  
Sorlein, Amy - Home Economist ..... 7/1/84-11/16/89

## Pembina

Benoit, Lisa - Program Assistant, FNP ..... 11/15/96-4/18/97  
Boerner, Colleen - Extension Agent ..... 4/16/01-present  
Fagerholt, Susan - Extension Agent ..... 6/1/00-10/31/00  
Flage, Lynette - Extension Agent ..... 8/1/94-2/28/01  
Gapp, Angela - Assistant County Agent ..... 7/18/83-10/31/85  
Midgarden, Karen - Nutrition Education  
Agent, FNP ..... 3/1/96-present  
Restemayer, Lynette - Home Economist ..... 9/22/80-5/5/87  
Schlecht, Ron - County Agent ..... 3/13/86-11/30/87  
Schmidt, Bruce - County Agent ..... 1/1/88-6/11/89  
Sorlein, Amy - Extension Agent ..... 9/1/92-4/14/94  
Thostenson, Andrew - Extension Agent ..... 9/3/96-1/31/98  
Ussatis, Rita - Home Economist ..... 8/24/87-8/31/91  
Voorhees, Wilbur - County Agent ..... 3/1/68-2/28/86

## Pierce

Denich, Darell - County Agent ..... 3/16/61-6/30/93  
Erickson, Karlyle - Extension Agent ..... 9/1/93-present

## Ramsey

Cogdill, Bradley - County Agent ..... 11/1/80-5/31/90  
Eisenzimmer, Nichole -  
Program Assistant, FNP ..... 1/13/97-12/20/97  
Endres, Gregory - Assistant County Agent ..... 7/8/83-1/20/85  
Frank, Maxine - Extension Agent ..... 9/1/60-12/31/95  
Horner, Jane - Nutrition Education Agent, FNP .. 3/23/98-present  
Huot, Willie - County Agent ..... 6/18/90-5/31/92  
Langerud, Brenda - Extension Agent ..... 3/1/96-present  
Liane, Mike - Extension Agent ..... 6/1/92-present  
Pike, Jody - Program Assistant, FNP ..... 3/6/95-12/3/96  
Schlecht, Ronald - Assistant County Agent ..... 6/1/85-3/12/86  
Sturn, Gerald - County Agent ..... 9/1/86-6/30/87

## Ransom

Anderson, LoAyne - County Agent ..... 8/19/85-3/31/86  
Grueneich, Randy - Extension Agent ..... 1/1/95-11/30/02  
Lee, Debra - Extension Agent and  
Nutrition Education Agent, FNP ..... 1/1/90-present  
Siebert, Dale - Extension Agent ..... 5/1/76-10/16/94

## Renville

Aho, Valerie - Home Economist ..... 6/4/84-5/31/85  
Eraas, Ken - County Agent ..... 10/16/75-11/15/87  
Jessen, Trisha -  
Nutrition Education Agent, FNP ..... 12/30/02-present  
Mau, Rebecca - Home Economist ..... 11/1/85-2/10/87  
Scharmer, Lori -  
Nutrition Education Agent, FNP ..... 11/18/01-9/30/02  
Voigt (Anderson), LoAyne - Extension Agent ..... 2/1/88-present

## Richland

Biewer, Adrian - Extension Agent ..... 8/19/02-present  
Edwardson, Steve - Assistant County Agent ..... 11/1/85-3/31/87  
Evenson, Deb - Home Economist ..... 9/1/97-3/15/99  
Latham, J.D. - County Agent ..... 7/16/71-6/30/87  
Leino-Mills, Pamela -  
Nutrition Education Agent, FNP ..... 10/19/99-present  
Morales, Ricky - Agent-in-Training ..... 1/1/91-4/15/92  
Narum, Linda - Extension Agent ..... 2/1/89-6/30/01  
Neiber, Bobbie Jo - Extension Agent ..... 8/21/00-8/16/02  
Nelson, Doris - Home Economist ..... 8/1/83-12/6/88  
Platt, Karen - Program Agent, FNP ..... 12/1/98-9/23/99  
Siebert, Dale - Extension Agent ..... 10/17/94-present  
Svingen, Colleen - Extension Agent ..... 9/17/01-present  
Syvertson, Vicki - Home Economist ..... 2/1/91-8/3/92  
West, June - Program Agent, FNP ..... 3/15/95-10/2/97

## Rolette

Armstrong, Karen - Extension Agent ..... 6/6/90-present  
Brandt, Jill - Extension Agent ..... 12/11/97-5/15/02  
Dunlop, Ellen - Home Economist ..... 4/15/68-4/30/90  
Dvergsten, Greg - County Agent ..... 7/1/90-8/27/91  
Endres, Gregory - County Agent ..... 1/2/85-5/31/90  
Gault, Bea - Nutrition Education  
Assistant, EFNEP ..... 2/89-present  
Gutherless, Jeff - Nutrition Education  
Assistant, EFNEP ..... 9/1/92-present  
Lamb, Carmelita - 4-H Horsemanship  
Program Assistant ..... 3/1/91-5/31/91  
Miller, Mark - Extension Agent ..... 4/1/96-present  
Satterthwaite, Gary - County Agent ..... 12/6/76-11/30/86  
Sott, Janeva - Program Assistant, EFNEP ..... 7/10/85-9/89  
Strom, Bryan - County Agent ..... 11/1/91-5/7/93

## Sargent

Brecker, Jody - Home Economist ..... 1/1/90-8/31/90  
Gulleson, Connie - Extension Agent ..... 6/1/99-2/3/02  
Gulleson, Pam - Home Economist ..... 12/1/90-9/30/91  
Hassebroek (Young), Julie - County Agent ..... 2/1/86-present  
Marhula, Jennifer - Extension Agent and  
Nutrition Education Agent, FNP ..... 2/12/02-12/31/02  
Qual, Julie - Extension Agent ..... 10/1/90-3/1/99  
Romo, David - County Agent ..... 10/1/84-11/30/85

## Sheridan

Alderin, Kent - Extension Agent ..... 7/9/90-present  
Berreth, Linda - Extension Agent ..... 3/5/90-1/31/96  
DeCock, Robert - Extension Agent ..... 9/1/67-6/30/98  
Faul, Beverly - Nutrition Education  
Assistant, FNP ..... 10/1/99-9/30/00  
Hochhalter, Jeanne - Extension Agent ..... 5/1/96-8/15/00  
Lechler, Verona - Extension Agent ..... 6/3/02-present

## Sioux

Claymore, Mike - Extension Agent ..... 8/3/98-3/31/00  
Elk (Netterville), Marsha -  
Program Assistant, FNP ..... 4/1/97-8/31/00  
Gullickson, Johnell - Nutrition Education  
Assistant, EFNEP ..... 3/4/91-11/9/00  
Kelly, Patty - Program Assistant, EFNEP ..... 11/21/88-3/20/89

**Luger, Cammie** - Nutrition Education  
 Assistant, EFNEP ..... 11/26/01-present  
**Markegaard, Wayne** - Extension Agent ..... 11/15/00-present  
**Phillips, Emma Jane** - Program Assistant, EFNEP . 7/1/82-8/31/85  
**Schwartz, Maria** - Program Assistant, EFNEP .... 10/21/85-6/14/88  
**Shell Track, Hermine** -  
 Program Assistant, EFNEP ..... 1/1/72-10/31/90  
**Skinner, Peggy** - Program Assistant, EFNEP ..... 4/2/95-12/4/95  
**Soiseth, Charles** - Extension Agent ..... 9/1/67-6/30/98  
**Tronson (Hoines), Vanessa** - Home Economist .... 1/14/85-1/7/90  
**Weiler, Donna** - Program Assistant, EFNEP ..... 7/11/88-7/31/94

## Slope

**Eraas, Ken** - Extension Agent ..... 11/15/96-5/15/98  
**Erickson, Karlyle** - County Agent ..... 3/9/81-7/31/85  
**Froelich, Kurt** - County Agent ..... 12/1/85-12/31/90  
**Jacobson, Kristie** - Home Economist ..... 1/2/90-6/30/00  
**Johnson (Whitney), Bridget** - Extension Agent ..... 9/1/98-8/3/03  
**Runner, Joanne** -  
 Nutrition Education Agent, FNP ..... 11/1/95-present  
**Steffan, Annette** - Extension Agent ..... 5/1/91-8/9/96

## Stark-Billings

**Brummond, Boyd** - Assistant County Agent ..... 1/7/86-1/31/87  
**Irsfeld, Mary** - Urban 4-H ..... 11/15/79-9/30/86  
**Kickertz-Gerbig, Sharon** - Extension Agent ..... 6/14/76-present  
**Larson, Jerry** - Extension Agent ..... 5/15/78-present  
**Roy, Dolores** - Nutrition Education Agent, FNP . 12/5/88-present  
**Steffan, Annette** - Assistant County Agent ..... 8/1/90-4/30/91

## Steele

**Becker, Tim** - Agent-in Training ..... 7/19/93-1/9/94  
**Gion, Brian** - Extension Agent ..... 10/18/99- 1/1/02  
**Gunkel, Leigh** - Nutrition Education  
 Assistant, FNP ..... 11/27/95-present  
**Hiam, Rachael** - Extension Agent ..... 1/2/02-present  
**LeClerc, Gerald** - Extension Agent ..... 3/1/71-9/30/95  
**McElroy, Teresa** - Home Economist ..... 1/1/86-6/29/01  
**Olson, Jon** - Extension Agent ..... 12/1/98-8/20/99  
**Vachal, Shawn** - Extension Agent ..... 1/1/96-8/31/98

## Stutsman

**Aakre, Dean** - County Agent ..... 1/1/83-7/20/87  
**Fletcher, Amy** - Extension Agent ..... 9/1/92-2/28/94  
**Froelich, Kurt** - County Agent at Large ..... 1/1/91-9/30/91  
**Morehouse, Luella** -  
 Nutrition Education Assistant, FNP ..... 11/6/95-present  
**Norstog, Jon** - Agent-in-Training ..... 12/9/91-7/3/92  
**Olson, Thomas** - Extension Agent ..... 9/15/80-present  
**Sahr, Eunice** - Extension Agent ..... 5/1/94-present  
**Tweeten, Kathleen** - Home Economist ..... 2/1/85-8/31/92  
**Vachal, Shawn** - Agent-in-Training ..... 7/11/94-12/31/95

## Towner

**Gette, Gayle** - Extension Agent and  
 Nutrition Education Agent, FNP ..... 8/1/97-present  
**Johnston, Joleen** - Extension Agent ..... 12/1/89-12/31/96  
**Lykken, Terrance** - Extension Agent ..... 10/1/81-present

## Trail

**Beyer, Janelle** - Home Economist ..... 8/20/90-1/7/96  
**Gienger, Clinton** - Extension Agent ..... 8/5/91-present  
**Gunkel, Leigh** - Nutrition Education  
 Assistant, FNP ..... 11/27/95-present  
**Jacobson, Kim** - Acting Extension Agent ..... 9/22/94-8/31/95  
**Kringler, John** - County Agent ..... 1/18/82-5/31/91  
**Sahr (Berthold), Eunice** - Home Economist ..... 4/1/80-6/24/90  
**Strommen, Bryan** - Assistant County Agent ..... 10/21/85-7/15/87  
**Zook, Laura** - Assistant County Agent ..... 8/13/84-8/31/85

## Walsh

**Askim, Craig** - Extension Agent ..... 7/24/02-present  
**Brummond, Brad** - Extension Agent ..... 9/1/92-present  
**Fagerholt, Susan** - Extension Agent ..... 11/1/00-present  
**Grinde, Wayne** - County Agent ..... 12/1/66-5/31/92  
**Kemp, Jefferey** - County Agent ..... 2/15/80-7/15/87  
**Kraft, Jane** - Home Economist ..... 3/15/80-12/31/89  
**Midgarden, Karen** - Program Assistant, FNP ..... 3/1/96-present  
**Ussatis, Rita** - Extension Agent ..... 5/1/92-8/30/00  
**Votara, Lisa** - Program Assistant, FNP ..... 3/7/95-1/12/96

## Ward

**Bjelland, Ellen** - Home Economist ..... 6/10/85-1/31/91  
**Carlson, Don** - County Agent ..... 2/11/85-1/2/87  
**Effertz, Michelle** - Home Economist ..... 3/4/91-7/31/99  
**EGge, Dennis** - Extension Agent ..... 2/1/75-10/31/97  
**Erdman, Marlene** - Program Assistant, EFNEP .... 11/4/75-3/11/94  
**Jessen, Trisha** -  
 Nutrition Education Agent, FNP ..... 12/30/02-present  
**Keenaghan, Susan** - Program Assistant, EFNEP ..... 2/9/88-8/15/88  
**Klosterman, Arlene** - Program Assistant, EFNEP .. 2/15/71-1/2/86  
**Lauders, Debra** - Program Assistant, EFNEP ..... 2/12/90-7/3/93  
**Peterson, Marjorie** - Urban 4-H ..... 5/8/85-7/31/86  
**Rose, Mike** - Extension Agent ..... 1/19/98-present  
**Sabol, Janet** - Home Economist ..... 10/1/80-1/6/85  
**Schacherer, Angela** -  
 Nutrition Education Agent, FNP ..... 5/4/99-8/31/00  
**Scharmer, Lori** - Extension Agent ..... 1/8/01-present  
**Shilts, Debra** - Program Assistant, EFNEP ..... 2/26/88-9/11/89  
**Slinde, Gail** - Extension Agent ..... 1/3/00-present  
**Watson, Linda** - Program Assistant, EFNEP ..... 9/26/88-9/11/89  
**Zeltinger, Sharon** - Agent-in-Training  
 and Extension Agent ..... 7/5/94-8/20/02

## Wells

**Bollingberg, Nancy** - Extension Agent ..... 9/4/01-present  
**Kirkeide, Levon** - County Agent ..... 2/1/59-5/22/87  
**Maine, Richard** - Extension Agent ..... 3/18/85-present  
**Pedersen, Rhonda** - Extension Agent and  
 Nutrition Education Agent, FNP ..... 7/1/98-4/30/01

## Williams

**Dragseth, Doug** - Extension Associate ..... 12/7/98-1/31/00  
**Froelich, Warren** - Extension Agent ..... 3/1/81-present  
**Hauge, Linda** - Extension Agent ..... 11/1/74-present  
**Madison, Colleen** - Program Assistant, FNP ..... 10/1/97-8/15/02  
**Reiger, Nancy** - Program Assistant, FNP ..... 3/1/95-11/27/95  
**Schmitz, Jack** - Assistant County Agent ..... 6/20/83-7/15/87

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