

**March 10, 2020 - Advisory Board Meeting  
NDSU-Hettinger Research Extension Center**

**Animal Science Report**

**Graduate Students:**

- Graduate students and undergrad technicians:
  - Paige Anderson – M.S. – Animal Science (Travis Hoffman, Dr. Stokka)
  - Rika Baumgaertner – Ph.D. – Animal Science (Carl Dahlen)
  - Robin Malik – M.S./Ph.D. – Animal Science (Scott Kronberg)
  - 2 Animal Science internships for the summer (1 from Brazil)

**Strategic Plan - Progress towards goals: *Evaluate alternative livestock production systems that increase profitability while maintaining environmental stability***

- Outreach efforts:
  - Fall Ram Test - Field Day March 14, 2020
    - 64 rams from 21 producers: Rambouillet, Columbia, Dorset, Genelink
  - Shearing and Wool Classing School: November 17-19, 2018
    - Shearing School – 17 students from ND, MN, WA, TX, MT, SD, and CO
    - Wool School – 15 students from WY, ND, ME, MT, SD, MN, and NE
  - Sheep Schools with Extension Service
    - Beginning sheep school with NDLWPA and starter flock recipients (September)
  - OFDA: Newel Ram Sale, Rapid City Stock show
  - Getting quotes for a NDSU tartan stadium blanket make out of HREC wool
    - Proceeds to go to Animal Science and Textile Department scholarships
- Sheep Research:
  - *Impacts of flax on female and male reproductive traits when supplemented prior to breeding in sheep* (Amanda Long M.S. program)
    - Received \$38,000 to fund salary as well as product donation
    - Acquired \$20,000 in funds for the ewe and ram trials
      - In review at Sheep and Goat Research Journal
  - *Impacts of banamine injection on pain responses of either rubber ring castrated and tail docked or surgically castrated and burdizzo docked lambs* (Paige Anderson, M.S. program)
    - \$9,555 for trials
    - Finishing M.S. Thesis and writing
  - *Effects of loin eye muscle depth on accuracy and variation of loin eye area prediction and carcass yield via ultrasound in Rambouillet sheep*
    - \$5,340 for travel funds
    - Have collected some carcass data, still need to get more ultrasound data
  - *Genetic marker for “blown legs” in Rambouillet rams*
    - Collaborated with the U of Idaho to determine if there is a genetic marker for “blown legs” in Rambouillet rams.
    - Have a potential “region” of the DNA we are targeting. We collected more data this year.

- *Effect of dried distiller's grains and particle size on feedlot lamb growth, carcass traits, nutrient digestibility, and ruminal fermentation* (Rika Baumgaertner Ph.D. program)
    - \$9,907 for research trials
    - Potentially conduct the research this summer
  - *Effect of paternal divergent nutrition before breeding on semen characteristics, pregnancy rate, ram lamb growth and reproductive performance and carcass traits.* (Rika Baumgaertner Ph.D. program)
    - \$16,081 for research trials
- Cattle Research:
    - Grazing studies with Range and Wildlife program (Integrated project – Strategic Plan #5)
  - Publications:
    - Refereed – 3 in review, Proceedings – 2 being submitted for meetings this summer
  - Extension Specialist: Dr. Janna Kincheloe