



DEPARTMENT OF ANIMAL SCIENCES

to generate and share knowledge about the health and welfare of animals, the products they produce,
and the roles they play in improving human lives

Department by the numbers (Fall 2019)

Faculty	2019
Tenure-track	18
Research FTE	9.3
Teaching FTE	4.9
Extension FTE	3.0
Non-tenure-track	9
Research FTE	1.0
Teaching FTE	6.8
Support staff (FTE)	
Research	11 (8.25)
Office	5 (5.0)
Livestock units	15 (14.75)
Students	
Undergraduates	332
M.S.	17
Ph.D.	11

Departmental Changes and Highlights

- Drs. Dale Redmer and Anna Grazul-Bilska, both reproductive physiologists, retired early
 - Dr. Grazul-Bilska's position is open
- New hires
 - Dr. Chris Byrd – Swine stress physiologist
 - Dr. Yuri Montanholi – Beef extension specialist
 - Dr. Carolyn Johnson and Ms. Kelsey Wirt – veterinary technology program faculty
- One open lecturer position

- Our faculty continue to receive national accolades. Kendall Swanson received a national nutrition research award and Stacy Ostby received a national teaching award.
- Our faculty garnered over \$1 million in grants since July 1: three USDA grants (\$898,000) and one industry grant (\$145,000), plus other smaller grants. The large grants focus on grazing management practices, developmental programming in calves, and cow efficiency.
- Our Extension specialists focus on high-impact programming and stewardship of resources. Water quality, whether too much or too little, continues to be an important area of programming.
- The NDSU Barbeque Boot Camp program is back tailgating this fall after being absent last fall. The trailer was also in Frisco, Texas, for the national championship game in January. Our commodity groups' strong interest in sponsoring events associated with tailgating continues to be a highlight for the department.

- Our swine research facility received major improvements – new farrowing and gestation penning. Group penning replaced gestation stalls reflecting changes in the industry.
- Our tenure track faculty numbers continue to decline. In FY2019, grant proposals decreased by 50% reflecting the decrease in faculty numbers, especially experienced faculty.
- Our graduate student enrollment is down slightly to 17 MS and 11 PhD students, reflecting a decrease in faculty numbers due to budget cuts.
- Undergraduate enrollment in our three majors (Animal Science, Equine Science, and Veterinary Technology) continues to decline, reflecting demographic challenges.

Capital Improvement Needs

- Raising money for and completion of the Ag Products Development Center, which the current 1950s-built Meats Laboratory is part of, remains a top priority.
- Aging livestock facilities continue to require repair and maintenance. The dairy barn is old and less relevant for research needs of the industry.

Research Needs

- The department supports multidisciplinary research. Positions below can be cross-disciplinary.
 - **Bioinformatics:** Analysis of large datasets continues to be important in many aspects of agriculture. Automated data generation produces vast troves of information. Within the livestock industry, we have large datasets from genetic analyses. At NDSU, we have intake data from eight years of experiments at the Beef Cattle Research Complex with over 7 million observations.
 - **Sensory scientist:** Culinary arts, local foods, and the holistic nature of food create an opportunity for marketing. In conjunction with the proposed Agricultural Products Development Center, we support new positions in improving and capitalizing on sensory traits of foods.
- **Reproductive physiologist:** Our reproductive physiology team, well known internationally for developmental programming, has decreased from 5 to 2 in the past three years.

Extension Needs

- Our ability to serve the swine and dairy industries in the state has been severely impacted by the budget cuts implemented because of the 2017 legislative session. The North Dakota Livestock Alliance is developing resources for swine producers in conjunction with their recruiting efforts.
- Livestock extension positions in western North Dakota are needed to shore up our programming across the state.
- **Livestock forage specialist.** We use Dr. Marisol Berti, a forage scientist and teacher in plant sciences, to answer questions about livestock use of forage. This is an undue burden on her program and limits our ability to respond to critical questions from producers, especially with changing weather patterns.