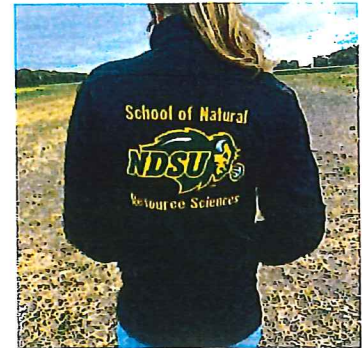


Thank you! A huge "thank you" to SBARE and your advocacy in the last session. The funding for NDAWN enhances our programming capabilities to provide weather and climate data.

Department updates:

Faculty Additions: Lindsay Malone (climate smart agriculture), Travis Seaborn (applied ecology), Kelsey Griesheim (soil fertility), and Kirsten Butcher (soil health); Current searches underway for: Soil Health Extension, NRM Faculty, and NDAWN Programmer

Faculty Retirements/Resignations: Stephen Foster (chemical entomology), Abbey Wick (soil health Extension), Aaron Daigh (soil physics), Ryan Limb (range ecology), Caley Gasch (soil health), and Jack Norland (restoration)



Needs

Resilient and Climate Smart Agriculture

- **Request:** Research faculty position and funding to enhance resilient agricultural production specifically focused on carbon.
- **Justification:** Building resiliency is key to continued success in cropping systems. There is little room for error in producing a crop during a "typical" North Dakota growing season as we face many challenges such as short growing seasons, extreme weather, drought, flooding, and pest pressure. Management options may help deal with these problems, including: water- and soil-conservation tillage, cover crops, drought-tolerant crops, and increasing soil carbon. Yet more research is needed to verify carbon capture across fields, soils and cropping systems; and evaluate fair prices for incorporating soil health practices on the landscape. This information is needed to keep North Dakota competitive in ever changing national and global markets.



Equipment, Operating and Graduate Student Funds,

- **Request:** Enhanced funding for equipment, operating, and graduate students
- **Justification:** Prices for equipment and machinery increased by 19% between January 2020 and March 2023 and energy prices have continued to climb as well. These increases cut into our budget and impair our ability to conduct cutting edge research. For example, we recently brought on two new faculty with skills to conduct revolutionizing soil Carbon and Nitrogen isotope research, but NDSU does not have the needed equipment or the funds to provide it for them. The two pieces of equipment cost \$115,000 and \$300,000, and the nearest researchers with this equipment and skill set are at Utah State and UC Davis. Additional funds in these areas would allow NDSU SNRS to be research leaders on a global scale.



Conservation: Wildlife and Reclamation

- **Request:** Enhanced support for main campus research and Extension for conservation agronomy, wildlife, and reclamation.



- **Justification:** Natural resources, including water, soil, plants, animals, and the services they provide are essential for the structure and function of natural and agricultural systems. Energy is a \$10.4 billion industry in North Dakota and on average three accidental spills are reported each day. Agriculture contributes \$30.8 billion to North Dakota's economy and supports one out of every five jobs in the state. There is need to protect our lands, water, and wildlife; while also maintaining agriculture and energy production. SNRS is uniquely positioned at the intersection of agriculture and natural resources, and is well trusted within both groups. Environmental and agriculture policy will continue to intermingle and impact management on the landscape. This is becoming center stage currently with herbicide discussions and the Endangered Species Act. It is pivotally important to have research and data on conservation and reclamation from a trusted entity; as well as Extension support to disseminate that information to our citizens. This initiative would greatly enhance our ability to address conservation needs across the state.

Apiary Initiative



- **Request:** Enhanced research and extension capacity for apiary industry and honeybee production.
- **Justification:** Did you know that North Dakota has over 300 bee species on our grasslands? Additionally, North Dakota is the No. 1 honey-producing state in the nation. In 2022, North Dakota bees produced 31.2 million pounds of honey valued at over \$82 million. Yet, minimal research is done on the topic in state and there are no AES or Extension positions specifically dedicated to this industry. There is a great need to support this industry and the state through both research and Extension efforts on main campus and at REC's, specifically Hettinger where there is specific interest in working with the apiary industry.