



1 Biofuels and Carbon Initiative

Given the growing demand in multiple markets for agricultural products with low carbon intensity (CI), particularly in ethanol and biodiesel production, it's important for farmers in the region to adapt to meet these market preferences. This shift necessitates a comprehensive understanding of climate-smart practices and the intricacies of carbon contracts. These contracts often entail long-term commitments from farmers and ranchers to implement practices that enhance carbon sequestration in soils, thereby mitigating greenhouse gas emissions. However, navigating the complexities of carbon capture practices and associated contracts can be daunting for producers.

Education plays a pivotal role in empowering farmers to navigate the complex landscape of carbon management effectively. A carbon specialist would serve as a vital conduit between farmers, ranchers and various stakeholders, including government agencies and carbon offset markets. By staying informed about the latest developments in carbon management policies, market trends, and technological advancements, the specialist will provide farmers with up-to-date information and valuable insights. Through workshops, training sessions, and personalized consultations, they will educate farmers on the intricacies of carbon contracts, sustainable practices, and the potential benefits of participating in carbon markets. This educational support equips farmers with the knowledge and resources needed to make informed decisions, maximize their participation in carbon offset programs, and ultimately contribute to climate change mitigation efforts while enhancing the sustainability and profitability of their operations.

Request: One FTE specialist position – Extension Carbon Specialist – \$275,000.

Will provide education on climate-smart practices related to carbon contracts farmers and ranchers have the opportunity to implement. \$50,000 in operating support for the specialist.

Total: \$325,000



2 Extension and State Soil Conservation Committee Operating Support

Request for increased operating funds is crucial for the continued success of NDSU Extension's mission. These funds are essential in empowering extension specialists and agents to adapt and innovate, ensuring they can effectively address emerging needs and devise novel strategies to engage with local communities. However, the cost of operating has risen, including equipment and assistantships, placing strain on our ability to fulfill our mission effectively.

One area where increased operating support is particularly impactful is in the advancement of North Dakota's future through 4-H youth development and leadership programs. These programs nurture the next generation of leaders by providing them with positive experiences, fostering club involvement, enriching school environments, and equipping youth with essential workforce readiness skills.

In addition, allocating operating support to the State Soil Conservation Committee provides an increase in direct assistance funding to be distributed to local Soil Conservation Districts for technical assistance and conservation planning support.

Request: Extension operating support – \$600,000 and State Soil Conservation operating support – \$150,000 for total request of \$750,000.

Total: \$750,000

NDSU Extension Program Initiatives

Final Ranking by SBARE – February 21, 2024



3 Livestock: Precision Management and Animal Health Initiative

The landscape of animal agriculture is experiencing a transformative evolution, driven by the integration of data related to a myriad of production variables. This integration serves a multifaceted purpose, overseeing crucial aspects such as health, nutrition, reproduction, and overall well-being of the animals. Through the utilization of cutting-edge technology, livestock management is undergoing significant enhancement, leading to improved efficiency across livestock enterprises. This shift toward digitization marks a pivotal moment in the industry, promising better outcomes for animals and farmers alike.

NDSU plays a pivotal role in shaping the future of animal agriculture. With an understanding of the interconnectedness between animal health, technology and economic prosperity, NDSU Extension serves as a technical resource and focuses on safeguarding livestock health in the state. Central to this mission is the elevation of monitoring and surveillance of zoonotic diseases, which pose a threat to both animal and human populations. By actively engaging in this endeavor, NDSU Extension significantly contributes to the overall well-being of the community and the continued prosperity of the livestock industry.

Request: Two FTE specialist positions – (1) Extension Precision Agriculture Specialist - \$275,000. Will provide education around key technological advancements in livestock technologies such as sensors, transponders, livestock collars and artificial intelligence. (2) Extension Veterinary Epidemiologist - \$440,000. Efforts will focus on safeguarding the health of North Dakotans and their livestock by elevating the monitoring and surveillance of zoonotic diseases shared between animals and humans. \$100,000 for operating support for two specialists.

Total: \$815,000



4 Agri biome Initiative

As NDSU's agri biome research progresses toward solutions that can positively impact North Dakota crop and livestock operations, the involvement of an Extension specialist becomes pivotal in translating scientific advancements into practical applications. Extension education plays a crucial role in assisting producers in navigating the rapidly expanding and increasingly intricate microbial biologicals market. Presently, there are over 1,200 companies producing various biostimulants, inoculants, biofertilizers, biopesticides, probiotics and other biologicals aimed at enhancing crop and livestock production. Extension education is vital to provide the necessary guidance to empower producers with the knowledge needed to make informed decisions in this complex landscape.

Request: One FTE specialist position – Extension Agri biome Specialist – \$275,000. Will assist producers in navigating the rapidly expanding and increasingly intricate microbial biologicals market. \$50,000 for operating support for the Extension agri biome specialist.

Total: \$325,000



NDSU

EXTENSION

NDSU EXTENSION

EXTENDING KNOWLEDGE >> CHANGING LIVES