# Carrington Research Extension Center

2025 SBARE Listening Session

## Description

The Carrington Research Extension Center conducts research and educational programs to enhance the productivity, competitiveness, and diversity of agriculture in central North Dakota. Research activities at the CREC include scientists and support staff trained in implementing programs in Agronomy, Plant Pathology, Soil Science, Precision Agriculture, Forage and Organic Systems, and Animal Science. A Northern Hardy Fruit program broadens the constituency being served and introduces much needed information related to horticultural development in the state. The Foundation Seedstocks program of the Center propagates seed for approximately 25 varieties across seven crops each year. The CREC is the base of operation for four Extension Specialists (Agronomy, Precision Agriculture, Livestock Environmental Management, and Beef Production). Currently, CREC has collaborative projects with 41 researchers from other RECs, campus departments, USDA facilities, and other universities.

## Facilities

The CREC operates on a land base of about 2,000 acres. The Agriculture Experiment Station owns 840 acres and cooperating area landowners are depended on for rental of the remaining acres. Four center pivots provide irrigation on 250 acres, while infrastructure supplies water for more than 80 acres of misting systems on owned land. Researchers also conduct off-station crop production field trials near Dazey, Wishek, LaMoure, and Fingal, and operate an expanded research program on irrigated crop production at the Oakes Irrigation Research Site.

Center facilities include the headquarters building, an agronomy laboratory and greenhouse, shop, seed conditioning plant, and seed and equipment storage buildings. The livestock unit can accommodate about 500 head of cattle. It includes a feed mill, feedlot pens, feed and forage storage, animal shelters, an office, a lab and shop facility, and a smart-feed building.

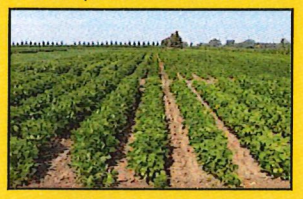
## Program Impacts

- In 2024, producers averaged $200 per head additional profit from feeding cattle to finish in CREC research projects. This would translate to $30 million net economic return to North Dakota cattle producers.
- In 2025, 51,000 bushels of clean seed were produced at CREC across spring wheat, barley, durum, field peas, flax, and soybeans. The CREC grew the only seed production of varieties such as Omega flax, Divide durum, and ND Victory field peas.
- CREC specialists helped lead the Advanced Crop Advisor's Workshop, attended by over 150 people, and the Getting it Right webinar series, with an attendance of over 500 people.

- Helped coordinate NDSU's response to Highly Pathogenic Avian Influenza (HPAI) since 2022. In particular, the CREC was involved with efforts to properly compost affected animals and sanitize facilities to reduce the chance of future outbreaks. This was capped by training 65 professionals to respond to mass casualty events in North Dakota.
- Updated disease recommendations for field pea, chickpea, dry beans, soybean, and sunflowers were delivered directly to 2,250 people across five states and provinces in 2024.

## Program Highlights

- Crop nutrition and fertility
- Germplasm evaluation



- Disease research

- Soils and salinity
- Precision agriculture

- Livestock research

- Foundation seedstocks production
- Extension outreach
- Fruit and berry evaluation

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## Program Impacts (cont.)

- A three-year study was concluded to evaluate winter pea planting dates in North Dakota. The study determined moderate to high risk of planting winter peas at any fall date, depending completely on winter cover conditions for survival. Successful crops yielded on-par with standard field pea varieties.
- Research demonstrated field pea varieties differ in their tolerance to Aphanomyces and Fusarium root rot pressure. Tolerant varieties produced 3-20 bu/a higher with similar root rot pressure as susceptible varieties.

## Thank You

The CREC would like to thank SBARE for the support and successful legislative passage of increased operating funding, deferred maintenance, a cold storage building, completion of the Oakes Irrigation Research Site facility, and annual salary increases.

## Programmatic Needs

### Livestock Sourcing

One-time funding is needed for the acquisition of beef cattle required to do research at the CREC. The CREC currently works with producer's cattle to supply the need for research projects. During times of high cattle prices, few cattle are available for feedlot studies. The CREC Advisory Board and North Dakota Stockmen's Association passed a resolution to support the establishment of a fund to be used for purchasing livestock, to be replenished at the time of sale. The CREC was not able to conduct feedlot research in the summer of 2025 due to lack of animals for trials.

### Horticulture

The CREC has a successful fruit and berry demonstration program. This program was established to meet the needs of the fruit growers in North Dakota. The focus of the program has been juneberries, haskaps, and aronia, along with seven other fruiting species. Operating support is needed to continue to build the program, which aims to work more directly with backyard gardeners and industry to increase the supply and demand of North Dakota specialty crops, value-added products, and agri-tourism.

### Operational and Equipment Funding Enhancement

Significant increases in operational costs have impacted us all, and the ND Ag Experiment Station is no exception. The majority of the department's operational costs are supported by funds derived from grants secured by CREC researchers. Opportunities to pursue grants are not increasing and not all types of operating costs or equipment are allowed by grant agencies. Since 2021 operational costs at CREC have increased by nearly 50%, hitting the livestock operation the hardest.

## Challenges to Sustaining Programs

### Deferred Maintenance

Current support for maintenance of CREC facilities and infrastructure is inadequate to address present deferred maintenance costs. The programs of the CREC are supported by a diversity of facilities that include not only the primary buildings like headquarters and laboratory, but also feedlot pens, feed and seed storage, irrigation systems, animal shelters, roadways, parking lots, water supply features, storage buildings, and waste containment. High priority needs currently include re-surfacing livestock pens, new carpet and siding on the headquarters building, and a new septic system at the residence.

### Land Base

A secure land base is critical to sustain the current and future research mission of the Carrington Center. The diverse programs of the CREC operate on an owned land base that is relatively small. The majority of the land used among programs is generally secured by annual rental agreements from five different landowners. The heavy reliance on rented land comes with risks in our ability to maintain programs and with significant annual costs to the department.

## Future Capital Projects

### Greenspace Renovation

The tree planting at the entrance to CREC has aged out. We are currently in the process of re-designing the area to increase public gathering spaces and enhance outreach programming to the community.

### Old Lab Renovation

CREC programs have expanded over the years with more scientists joining the team. The old research lab is a steel frame building that is currently under-utilized due to poor conditions. Work is needed to renovate the space to preserve history as well as create lab and work space for Precision Agriculture, Agronomy, and Organic programs.