

NDSU Central Grasslands Research Extension Center

Enhancing Lives while Improving Ecosystem Services and
Conservation of the Grasslands



Agriculture #1 Industry in North Dakota (ND Dept. Commerce 2019)

- ◆ \$10.9 billion per year (NASS.USDA 2017)
- ◆ 24% of the state's population is employed in the agricultural sector
- ◆ 90% of the state's land is used for agriculture
 - * 16.4 million acres is range, pasture and hay land
- ◆ 1.81 million head of beef cattle
 - * Rank 4th in total economic value behind soybeans, wheat, and corn at \$894 million
 - * Hay production ranks 6th at \$326 million

Tourism #3 Industry in North Dakota (ND State Government 2019)

- ◆ \$3.0 billion per year
- ◆ Much of these dollars are driven by recreational activities associated with our natural resources

Future and Current Research and Extension Programming at CGREC:

1. Regenerate Agriculture and Bio-diversity

A. Assess conservation tools to increase plant diversity to create a sustainable forage base for livestock production and habitat for wildlife and pollinators. Our objectives include:

- a. Reduce exotic cool-season grasses while increasing plant diversity and enhance soil health
- b. Create scientific outputs that can be used in creating new policies related to threatened and endangered species

2. Add value to our grazing lands through enhanced grazing efficiency

A. Increasing harvest efficiency by 10% would add economic value to our grazing land by 35-40% (~\$30/acre)

3. Assess late-season grazing and forage systems

A. Improve economic efficiency through reduced fossil fuel use, reduced labor, reduced depreciation to equipment, and add value to the land

4. Study livestock precision agriculture to enhance land management, beef cattle reproduction and nutrition

A. Add value to the animal in terms of genome selection, feeding efficiency, and fetal programming



Needs for 2021-2023:

- ◆ Increased operating budget to conduct new and on-going programs
- ◆ Increase technician and graduate student support to address new research initiatives
- ◆ Support for commodity building and equipment storage