

Agriculture: the cornerstone of North Dakota's future

Agriculture is a large, complex and changing industry. Traditionally defined as crop and livestock production, agriculture now expands far beyond the farm gate. It also encompasses national and international trade issues; the safe and beneficial employment of biotechnology; food processing and safety; animal and human health and nutrition; and biobased energies and products. It also includes related urban and business issues.

The North Dakota Agricultural Experiment Station (NDAES) is the research arm for agriculture at NDSU. Consisting of nine research departments on campus in Fargo and eight off-campus research centers, it provides extensive research and development solutions to address these and many other issues.

NDAES research activities in brief...

plant health
& development...

NDAES has nationally recognized plant breeding and genetic research expertise that emphasizes classical plant breeding and incorporates biotechnology tools. North Dakota is the No. 1 producer of 13 crops in the United States. To support this industry, the NDAES has more than 10 plant breeding and molecular genetics programs integrating disease and insect resistance and enhanced agronomic traits to benefit the producer, and superior nutritional attributes that can be utilized for both human food and livestock feed.

equipment
development ...

The NDAES incorporates the use of technologies in its laboratories to increase productivity by developing and engineering more effective machinery and equipment, and improving the processing of feed and food to ensure efficient and economical production.

bioenergy &
bioproducts...

The recent formation of the NDSU Bio Energy and Product Innovation Center coordinates NDAES and other NDSU research in biorelated activities, and develops, promotes and collaborates with industry, other institutions and government in this vital and innovative area of research and development.

urban living &
food safety...

For the expanding urban population, NDAES encompasses research related to the growing horticulture, recreation and parks industries including trees, garden and turfgrass varieties suited to this region and its specific environmental conditions. In the area of food safety and production it monitors safe transportation, storage and processing methods and researches new and innovative ways to incorporate added nutritional value into everyday foods.

for the
environment...

NDAES has expanded to include conservation of our natural resources in the areas of range management, and soil fertility and management. It researches and encourages sustainable agricultural systems to protect and conserve our environment.

animal health
& nutrition...

NDAES has extensive research programs in animal reproduction, nutrition and physiology to improve efficiency and profitability of livestock and equine management. Its expertise includes the utilization of the myriad of ND crops and coproducts of bioenergy production to enhance livestock nutrition. It has developed a successful, competitive research program in the molecular causes of infectious diseases of animals, relative to animal health, public health and food safety.

money matters
& trade...

The NDAES researches and monitors the effects of changes in international trade policies on agriculture. It designs alternative policies to stabilize farm household incomes and monitors investments to promote economic development in the state's rural areas. It studies market effects of crops modified by biotechnology and monitors changing crop insurance needs and requirements. It also surveys housing market characteristics in the state, and market and nonmarket values associated with alternative water management strategies.

agriculture
still no.1 ...

Because Agriculture is the No. 1 industry in the state, the NDAES will continue to research, as well as innovate, and collaborate with community government and industry to generate beneficial solutions for North Dakota, the region, the nation and the world.