

SBARE Priorities for the North Dakota Agricultural Experiment Station

May 3, 2018

NDSU NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

Capital Improvement Requests

Agronomic, Pathology, and Soils Field Lab Facility

(Waldron Hall replacement) — Waldron Hall was built in the mid-1950's to house the field laboratories for the wheat breeding programs in the Department of Agronomy. An addition was built in the mid-1960's to house approximately another 16 scientists from the Departments of Agronomy and Plant Pathology. The building now houses field labs and wet labs for nearly 60 scientists, each with numerous projects, at the Main Station involving a number of disciplines. Many of these labs are shared and the seed drying, cleaning, and storage facilities needed by our scientists are now grossly insufficient and a health hazard to anyone working in the facility. A new facility is needed to provide our scientists a safe environment to conduct their research, as well as processing, cleaning, and storing seed.

REQUEST: \$65,000,000 (approximately)

Seed Cleaning Facility WREC

Seed cleaning facilities at WREC need to be replaced. Current facilities are antiquated, lack reliable capability to ensure high quality seed, are slow, and inefficient. Current facilities were designed to handle cereal crops and have limited/no capability of cleaning pulse crops and other fragile seed that are in high demand. These facilities pose considerable worker safety issues. A fundraising effort is underway.

REQUEST: \$750,000

Equipment Storage Sheds

Purchasing and/or leasing expensive field equipment is an investment that the AES needs to protect. Storing expensive research plot equipment outdoors, such as tractors, seeders, and combines, reduces the life of the machines and can compromise the sophisticated electronics typically used on equipment.

REQUEST: 8 (\$300,000/shed)

Precision Ag/ABEN Facility

A field lab with large indoor space and accessibility to perform research, demonstration and field testing of ag equipment and technology. Additional infrastructure would include a 100-ft long soil bin to test soil-tool interaction of tillage equipment and a high speed wind tunnel to test nozzles for spray drift and droplet size distribution of active ingredients under various weather conditions. The facility would be critical in conducting research and training on agricultural technologies such as unmanned aerial surveillance, variable rate application systems, precision planting, and other technology used in crop and livestock systems.

REQUEST: \$6,000,000



REQUEST:

One-time deferred maintenance \$1,440,465