HISTORY

The Northwest Agricultural Research Station was established in 1951, when OARDC acquired 247 acres near Hoytville in southwestern Wood County. Part of an ancient lakebed, this region's soils pose production challenges due to their high clay content and extremely flat topography. Ohio State scientists continue to assist area farmers with their unique soil and production issues, helping them boost profitability and environmental stewardship.

Matthew Davis, Manager
Northwest Agricultural Research Station
4240 Range Line Road
Custar, OH 43511

419-257-2060
davis.1095@osu.edu
go.osu.edu/Northwest

NORTHWEST AGRICULTURAL RESEARCH STATION

DRIVING INNOVATION FOR OHIO'S FIELD CROP INDUSTRIES

Located in Wood County, in the heart of the former Great Black Swamp, the Northwest Agricultural Research Station focuses its research on field crops—corn, soybeans, and wheat—that are central to the economy of this extensive farming region.

Northwest Station personnel work with Ohio Agricultural Research and Development Center (OARDC) scientists, Ohio State University Extension specialists, and industry groups to conduct innovative studies on nutrient and pest management and conservation tillage; to make important advancements in the development of crop varieties; to communicate with and educate producers regarding innovations in production practices; and to transfer knowledge throughout northwest Ohio's agricultural community.

Northwest Ohio is the field-crop basket of the Buckeye State. Wood County, for example, ranks No. 2 in Ohio in soybean production, No. 3 in corn yield, and No. 4 in wheat production.

RESEARCH FOCUS

The Northwest Agricultural Research Station is an integral site for row-crop production research in the Buckeye State. The station's location—Wood County ranks No. 2 in soybean production, No. 3 in corn production, and No. 4 in wheat production—makes it a logical choice to study the challenges facing producers of these valuable commodities. The Northwest Station serves as a key site for the development of soybean and wheat varieties, with many breeding and screening nurseries located on-site.

The Northwest Station has been instrumental in the development of Phytophthora root and stem rot-resistant soybean varieties—which could save Ohio farmers up to $120 million a year in production losses.

KEY RESEARCH STUDIES CONDUCTED AT THE STATION INCLUDE:

NUTRIENT MANAGEMENT

The efficient use of resources is critical in all aspects of field-crop production. Multiple studies at the Northwest Station focus

on effective management of crop fertility inputs. Current projects examine both the input level needed to achieve maximum yield, and the level that allows for maximum economic return. Other research studies are designed to compare various nutrient sources, both organic and inorganic, along with a variety of application timings. The station's location within the Maumee River Watershed allows it to contribute to the work of the College of Food, Agricultural, and Environmental Sciences through the Field to Faucet Initiative to reduce nutrient pollution in the western Lake Erie Basin.

CONSERVATION TILLAGE

Because of their high clay content, northwest Ohio's soils do not lend themselves to no-till production, a practice widely used elsewhere in the state. Instead, scientists concentrate here on reduced tillage, which has long been utilized in American agriculture and contributes to production efficiency and soil quality. The station has been a pioneer in the study of varying levels of tillage, with long-term plots examining tillage and rotation variables since 1964. These plots have served as a resource for countless scientists in Ohio and around the world studying soil carbon sequestration.

PEST MANAGEMENT

Studies related to both insect and disease management are an important part of the Northwest Station's research program. Flat, high-clay soils drain slowly, providing an optimum breeding ground for soil-borne diseases.

As a result, management of these diseases is vital to profitable crop production in northwest Ohio. Researchers continue to examine treatment and management alternatives through resistant varieties, seed treatments, and fungicide applications; they also work to identify new disease strains that develop over time. Research involving insect management continues to evolve to include seed treatments, crops with genetically modified traits, and other control measures.

INVOLVEMENT WITH THE AGRICULTURAL COMMUNITY

The Northwest Agricultural Research Station Advisory Committee serves as a forum for discussing current and future research needs for producers in this part of Ohio. The committee is comprised of local farmers, agribusiness professionals, and OSU Extension educators. Together they address agricultural concerns and plan future studies.

ECONOMIC IMPACT

Northwest Ohio's abundant agricultural production makes a significant contribution to the state's economy. Soil-related studies and the development of more productive and disease-resistant crop varieties, along with outreach efforts conducted by the Northwest Agricultural Research Station, are crucial to maintaining the region's economy and to keeping its natural-resource base viable and vibrant.

With assistance from the Northwest Station, field crops contribute billions of dollars in production value to Ohio's economy every year:

- Ohio ranks seventh in U.S. soybean production, with an annual production value of $2.1 billion; this crop supports 26,000 farmers and various food, feed, biofuel, and bioproduct industries.
- Corn has an annual production value of $1.9 billion, supporting food, feed, renewable fuel, and other industries.
- Wheat adds $148 million in annual production value to Ohio's economy.