

Research Programs

The varied landscapes, soils and water resources at the Cherry Research Farm provide researchers with diverse opportunities. The size of the operation provides the ability to conduct large-scale research to simulate conditions on commercial farms and space to isolate different management components. The facility provides a diverse mix of livestock operations as well as field and horticultural crops.

Dairy The dairy operation consists of 160 dairy cattle and 160 head of replacement stock that are housed on 330 acres of pasture. The research at the dairy unit focuses on the benefits of pasture-based dairy production by examining economic, cow health and welfare, milk quality and environmental data.

Information collected from the herd dates back to 1947 and provides an invaluable comparison to the current herd's management practices. The relationship with the NC State University College of Veterinary Medicine provides hands-on training for veterinary students. The dairy unit provides the necessary resources to conduct important research in the areas of mastitis, Johne's and other economically important cattle diseases. The dairy unit demonstrates practices that may help local and regional dairy producers capture niche markets, potentially improving the profitability and sustainability of their family farms.



Swine The Cherry Farm Swine Unit is an alternative swine operation that utilizes hoop structures to house swine, rather than a conventional swine building. The buildings are open so that the animals can roam freely without inner pens, except for the gestation barn where crates are used for feeding and artificial insemination purposes. The houses have a concrete floor, and are deep bedded with straw to capture waste. There is no lagoon associated with this type of system, rather the waste is applied via a manure spreader to approved waste fields, or can be utilized in compost. The pigs at Cherry are also unique in that they are an antibiotic free herd used to demonstrate pig production. They receive no antibiotics during their life cycle, unless they become sick, at which point they are removed from the facility

and treated. Projects associated with the swine unit include a cross breeding program that examines the growth rate of different cross breeds including Yorkshire, Berkshire, Duroc, and Large Black. An outdoor swine operations project is also in its preliminary stages where pigs from the hoop swine facility will be utilized to determine how many pigs can exist on a certain piece of land without causing harm to the environment.

Beef The beef operation encompasses approximately 196 acres of marginal value crop production land. The winter calving, 100 cow herd, is composed of medium-frame, commercial-crossbred cows. The goal of the beef program is to operate a coastal plain cow/calf production system that will maximize profitability while minimizing expenses and environmental impacts. The primary objective is to demonstrate to beef producers and other clientele that beef cattle can be produced efficiently in eastern N.C. using intensively managed production systems. Guidance and priorities for applied research projects to evaluate the system are provided through an advisory committee comprised of faculty, producers and industry personnel.

Goats The introduction of goats to the Cherry Research Farm is just one example of the expanding research done on livestock. Goats have been utilized in the past year at the Small Farm Unit to demonstrate how animals can be raised by integrating them into a rotational cropping system. This allows small farm owners to not only produce vegetables and crops, but to also be able to produce livestock for added income. In recent months, there has been work done on a new facility that encompasses about 22 acres. This acreage is made up primarily of young trees, shrubs and under growth. Studies will be done to gauge the type of woodland forages that the goats prefer, as well as to determine what type of damage goats will inflict on vegetation. A cross-breeding program is also underway, where boer goats have been bred to Kiko bucks.



Field Crops Approximately 600 acres used for producing agronomic crops such as corn, soybeans and wheat. These rotations are used to provide feed for our livestock operations

and conduct applied research. Research projects included a variable rate nitrogen application study and silviculture project to integrate high value trees into a cropping system. An Organic Research Unit is being established to manage organic land and develop a guide for other Research Stations and farmers wanting to diversify into organic grain production.

Farming Systems Research The Farming Systems Research Unit encompasses about 200 acres to study five different types of systems including three agroecosystems. The systems are: (1) Best management practices (BMP) in a conventional cash cropping system, (2) An integrated crop-animal system, (3) An organic cropping system, (4) A plantation forestry system and (5) A successional ecosystem. Each system is replicated three times and four of the five systems contain subplots. For example: the BMP system is split into till and no-till subplots while the forestry system has four sub-plots representing four different tree species.

Small Farm Unit

The Small Farm Unit is comprised of about 30 acres which provide small farm stakeholders with a systems thinking in a whole farm model. The goal of the SFU is to provide research and demonstration of sustainable production and marketing practices to a diverse audience utilizing resources of N.C. A&T State University, N.C. State University, N.C. Department of Agriculture & Consumer Services and other community partners. Research efforts at the SFU include organic systems work, season extension, organic transplant production, small fruits production, pastured meats, grafted tomatoes, and cover crop/no till systems.



The Center for Environmental Farming Systems The Center for Environmental Farming Systems is dedicated to the development of farming systems that are environmentally, economically and socially sustainable. CEFS staff, in a unique partnership with North Carolina farmers and citizens, study and demonstrate an array of technologies, and strive to integrate them into sustainable farming systems. A goal of the CEFS program is to help develop a profitable agriculture system that provides a clean environment and safe, high-quality supply of food and fiber.

Station Facts

The Cherry Research Farm in Goldsboro is comprised of 2,245 acres. The farm, transferred to N.C. Department of Agriculture and Consumer Services in 1974, was originally a source of food for Cherry Hospital, a mental institution. Patients worked on the farm as a therapeutic benefit, and gained skills to enable them to be mainstreamed into society and support themselves financially. In the mid-1980's the farm was transferred to the NCDA&CS Research Stations Division and began the transition from production farming to agricultural research. In 1994, Cherry Research Farm was designated as the site for the Center for Environmental Farming Systems – a joint effort between NCDA&CS, N.C. State University and N.C. A&T State University to focus on sustainable agriculture.

Infrastructure

There are 41 structures on the station to meet the needs of each research unit. Station facilities include office buildings, maintenance shop, equipment storage, feed mill with crop drying and storage facilities, fertilizer and pesticide storage buildings, milking parlor, beef barn, swine hoop structures and fueling facilities. Over the past year the dairy has been upgraded and a new swine complex with hoop structures and an office has been constructed. Work continues on construction of a biodiesel processing unit that will provide the Cherry Research Farm and other eastern research stations with B100 to support their fueling requirements.

Community Partnership

The Cherry Research Farm is an important part of the local community. Partnerships have been developed with a variety of local groups including the Wayne County Public Library Community Garden, Discover Ag (K-12 agriculture literacy) with the Wayne County Cooperative Extension, and the Wayne County Community Food Systems Initiative. Additional partners include Wayne Community College Forestry Program which uses the timberlands for forest management and GIS training. The N.C. Department of Labor OSHA Carolina Star program recently identified the Cherry Research Farm as a Public Sector Site, one of seven in the state.

Excess produce, such as sweet potatoes and cabbages, are gleaned by the Society of St. Andrew for hunger-relief efforts.

Events

The events at the station cover a wide variety of formats and topics and include an array of visitors. Station tours are provided to universities, extension agents, community colleges, area school groups and commodity groups. Workshops are held on topics such as backyard organic gardening, beneficial insects, best management practices for beef, biofuel use, and high tunnel greenhouse production.



Research Stations Division

Working together for one cause

Mission

To manage crop and livestock facilities that serve as a platform for agriculture research to make farming more efficient, productive, and profitable, while maintaining a sound environment and providing consumers with safe and affordable products.

Partnership

Agriculture research in North Carolina dates back to 1877, when state legislation established the North Carolina Department of Agriculture along with “Experiment Stations” as a division of the department. Since that time, the N.C. Department of Agriculture and Consumer Services’ Research Stations Division, in partnership with N.C. State University, has established 18 statewide locations. Each facility has unique climate and soil conditions, giving researchers a living laboratory in which to investigate a variety of regional crops, forestry concerns, livestock, poultry, and aquaculture. The Division supports these studies by providing land, water, equipment, buildings, and staff who work around the clock to help build a stronger foundation for the future of agriculture.

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