

Station Facts

Established in 1970, the Horticultural Crops Research Station at Clinton encompasses 349 acres located on Highway 403. The average rainfall for the station is 47.63 inches with the largest amounts of rainfall occurring between June and August, the heart of the growing season. The soils, consisting of a sandy texture, relatively low organic matter, and acid in reaction, are typical of those in the upland areas of the Coastal Plain.

Infrastructure

The station facilities include an office, three dwellings, a multipurpose building, a shop, storage shelters, a fertilizer and pesticide storage buildings, greenhouse, an irrigation well and farm pond. A building for bulk handling and curing of sweet potatoes was completed in 1987. The station has the capability to provide irrigation to the entire operation through three lateral move systems and underground lines and hydrants for drip and overhead irrigation. Grant funding through N.C. State University has provided support to upgrade the sweet potato curing facilities. In 2006, the station began construction of two high tunnel greenhouses, which will be used to grow sweet potato transplants and other crops. The station is currently constructing a shelter to serve as a head house for the new greenhouses.



Research Programs

Breeding Long-term breeding programs continue to be conducted on cucumbers, tomatoes and sweet potatoes. These breeding programs look for plant materials which offer disease or insect resistance, better quality and/or greater yield. When new materials are proven to offer desirable traits, they are provided to seed companies for release as breeding material or as new varieties. Public breeding programs have declined in the past 15 years; therefore, we are fortunate to have these programs to support the growers, industry and residents of North Carolina. The breeding program at HCRS-CL also provides valuable training to N.C. State University and N.C. A&T graduate students. Students receive hands-on experience in growing practices, controlled pollination and evaluation of various treatments.



Cultural Evaluations With increasing concerns about the environment, it is important that we find better ways to utilize and track nutrients applied to crops. Research is directed toward learning the amount of nutrients to apply, when to apply them and how these nutrients move through the soil profile. Cover crops are grown to retain nutrients in the upper soil profile. Also, use of legume cover crops as sources of organic nitrogen for vegetable crops are under investigation. Plastic culture and drip irrigation are utilized to prescription feed and water various crops which are grown on the station.

Pesticide Screening Vegetables are minor acreage crops. Most chemical companies will not obtain the information required by EPA for labeling these materials for vegetable crops. The IR-4 research projects are conducted to determine residue levels of various chemicals on numerous crops. If it is determined that an insecticide, fungicide or herbicide does not present a residue problem, the company may petition for labeling. Materials are also evaluated to determine their effectiveness for controlling insects, diseases and weeds. Without this program, the availability of beneficial pesticides to vegetable growers would rapidly diminish.

Biotechnology Research using fungi, nematodes, beneficial insects and gene splicing is increasingly prevalent in the search for environmentally safe disease and pest management practices. The use of biological materials such as beneficial insects and genetic engineering to control disease and insects reduces the amount of chemical inputs into the environment. The application of this technology is evaluated to determine if it can be integrated safely and effectively into vegetable production.



Community Partnership

The station carries out a broad and varied research program to support the North Carolina vegetable industry. Its goals are to help growers solve short and long-term production problems, identify and evaluate alternative production enterprises, and maintain sustainability.

Research is conducted on various crops including cucumbers, sweetpotatoes, tomatoes, pepper, squash, strawberries, watermelons, asparagus, onions, and cole crops. Other research in corn, soybeans, and oil seed crops also takes place at the station.

Events

The Horticultural Crops Research Station hosts the Sweet Potato Field Day every other year, alternating with the Cunningham Research Station in Kinston. Small field tours and group meetings on disease management in vegetable production are held by project leaders to provide a hands-on experience.

The public is always welcome to visit and tours are available to groups making arrangements in advance.



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 N.C. 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.

Contact

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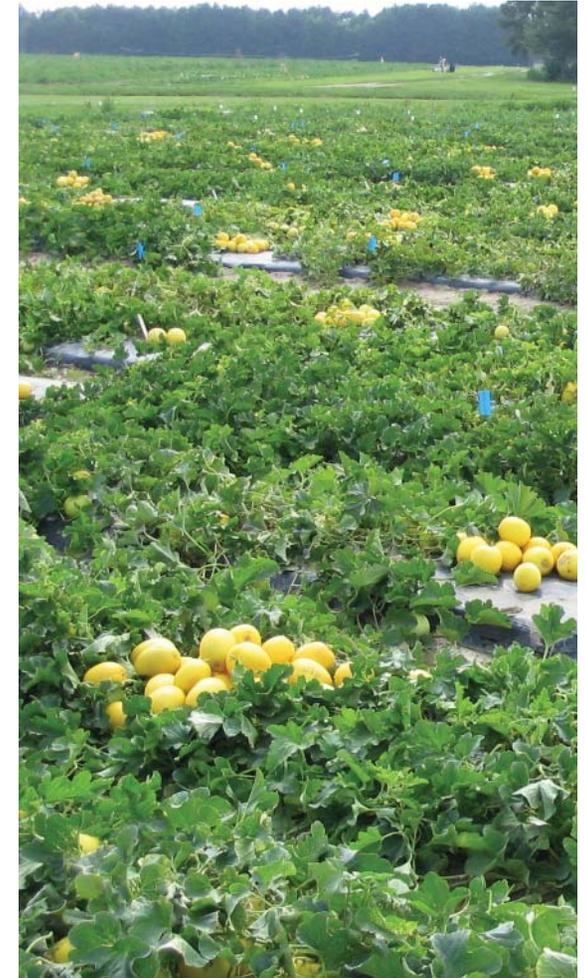
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Horticultural Crops

RESEARCH STATION

Sampson County



RESEARCH STATIONS DIVISION

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