

Station Facts

Mountain Horticultural Crops Research Station was established on 14 acres in 1949 and is now 349 acres. Its growth and expansion is based on the station's success as becoming a leader in laboratory, greenhouse and field studies vitally important to North Carolina's economy. MHCRS has a varied topography and climate with land conducive to research the crops grown in the region. MHCRS is located in the Southern Appalachians in the French Broad River basin with a base elevation of 2,069 feet. The adjacent Mountain Horticultural Crops Research and Extension Center serves as the office and laboratory headquarters for resident research and N.C. Cooperative Extension Service.

Infrastructure

MHCRS requires a large complex of structures, buildings and land to conduct its research program. Twenty-seven indoor and outdoor structures covering more than an acre are used to grow seedlings and maintain plants for field research. There are 16 buildings used to store and work on equipment, collect data, provide utilities and service to the station. A touch-and-smell herb garden, ornamental display gardens and arboretum are also located on the station grounds. During the summer, as many as 100 people can be found working on 77 research projects. There are 14 MHCRS staff in addition to 13 faculty and 27 support staff at MHCREC.



Research Programs

Vegetable Crops Tomatoes, peppers, squash and other vegetables are grown at MHCRS. The station is recognized worldwide for its tomato research program which has produced superior varieties with disease resistance, larger fruit size, higher quality and prolonged shelf life. Research in disease management has resulted in solving major tomato diseases which have plagued tomato producers for the past 41 years. Weed Science studies are conducted including black nightshade, a potential threat to tomato production in North Carolina because it is a plant related to tomatoes.

Aquaculture North Carolina is second in the nation in trout production. A 3,800 square-foot cool and cold water fish research facility on-site houses a recirculation unit for aquaculture studies. Production problems examined include vaccine efficacy, fish maturation, reproduction, nutritional evaluations and alternative species production.



Fruits MHCRS is a leader in apple research in the Southeast. Ongoing projects include rootstock and variety evaluations, spacing and training techniques, plant growth regulator and pesticide studies. Resulting information is being integrated into new technologies for high-density orchard production systems. Selected varieties of peach, cherry, strawberry, blueberry and raspberry are being evaluated for adaptation to Western North Carolina conditions.

Specialty Crops and Organics Production of high-value specialty crops and organics are increasingly important as farmers in Western North Carolina strive to keep their farms profitable. Work at MHCRS reflects the growing interest in culinary and medicinal herbs, native woodland botanicals, traditional wild foods, heirloom vegetable varieties and organics.

Nursery Crops The nursery/greenhouse industries are a major source of crop income for North Carolina farmers and continue to expand in both local and export sales. Researchers are focusing on development of new nursery crops with superior pest resistance, greater tolerance to environmental stresses and enhanced commercial potential. Evaluation and development of environmentally-friendly production practices is an important aspect of this research.

Soil Conservation The station's mountainous terrain is ideal for conservation-tilled vegetable crops research. Experiments using winter cover crop residues for both seeded and transplanted crops have produced excellent no-till yields and soil biology information for these systems.



Integrated Pest Management Apple and vegetable crops grown throughout Southern Appalachia have greatly benefited from the station's integrated pest management programs. Laboratory, greenhouse and field research include pesticide evaluation, host plant resistance, biological control and the impact of new reduced-risk pesticides on pest and beneficial organisms. Disease and weed management are also studied.

Community Partnership

Mountain Horticultural Crops Research Station participates with food banks and gleaning programs providing more than 100,000 pounds of produce to those in need over the past three years. To save on costs and as a societal benefit the station participates in the Governor's Community Work Program providing free labor from Correctional Centers.

The on-site Wastewater Demonstration Facility acts as a major training area for agents, specialists, installers and operators promoting the use of the most appropriate technologies for a given site. MHCREC hosts numerous agricultural and community meetings throughout the year at its meeting facilities.

Events

The station hosts numerous tours, workshops and field days. Annual field days include the Fresh Market Tomato and Vegetable Field Day and Plow Day, an annual event for animal enthusiasts. The Apple and Peach Field Day and Nursery and Landscape Field Day are held every other year. The research program provides tours for growers, Master Gardeners, schools, professionals, businesses and the public.



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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RESEARCH STATION

Henderson County



RESEARCH STATIONS DIVISION

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