

**North Carolina (North Carolina Agricultural and Technical State
University, North Carolina State University Combined) Critical Issues
2025-2029**

Enhancing Food Safety, Nutrition and Health

There is a critical need to ensure we have a safe and nutritious food supply. Our efforts help protect the availability and safety of the food supply through research and extension efforts focused on all levels along the food supply chain, from production to consumption. To meet the growing need for nutritious and safe food, our work includes development and production of new food products that promote health and prevent acute and chronic diseases. Efforts include the protection and defense of agriculture against diseases, natural disasters, adulteration, agroterrorism, etc. There is also a critical need to ensure that individuals, families, and communities have the knowledge to make choices about selecting safe and nutritious food and living healthy lifestyles that reduce their risk of foodborne and chronic disease and that they have access to safe, high-quality food at reasonable prices.

Last Updated: 2024 Initiated on: 11/26/2019

Term Length: Long-term (>5 years)

Science Emphasis Areas: Family & Consumer Sciences, Food Safety, Human Nutrition, Sustainable Agricultural Production Systems, Youth Development

Enriching Youth, Family & Community Well-Being

There is a critical need for youth to develop skills necessary for future success. Our work provides opportunities for youth to participate in 4-H clubs, camps, school enrichment, afterschool, and special interest programs. There is also a critical need to address the challenges affecting consumer and family well-being. Our research and outreach focus on areas such as human and youth development including parenting, childcare, family relationships, college and career readiness, financial management, aging, healthy homes, and disaster readiness, response, and recovery. Critical issues facing communities include economic, social, and environmental resiliency. Our programs focus on local foods and urban agriculture, leadership, workforce development, farmworker health, tourism, civic engagement, economic development, digital skills, community planning, and disaster preparedness.

Last Updated: 2024 Initiated on: 11/26/2019

Term Length: Long-term (>5 years)

Science Emphasis Areas: Environmental Systems, Family & Consumer Sciences, Food Safety, Human Nutrition, Sustainable Agricultural Production Systems, Youth Development

Improving Plant and Animal Agricultural Systems

There is a critical need to increase agricultural food, feed, fiber, and fuel productivity and to increase the profitability of farms and agribusinesses. This must be accomplished while providing safe, nutritious food for a growing population and being good stewards of our natural resources. Plant systems address plant production, protection, the development of new plant varieties and plant products, organic farming and land management, landscaping, gardening, and discovering and disseminating solutions to production issues including weeds, pests, and diseases. Animal systems focus on developing and disseminating knowledge and methods for animal breeding, reproduction, nutrition, genetics and genomics, physiology, environmental stress, processing and product quality, health, wellbeing, and biosecurity.

Last Updated: 2024 Initiated on: 11/26/2019

Term Length: Long-term (>5 years)

Science Emphasis Areas: Agroclimate Science, Bioeconomy, Bioenergy, and Bioproducts, Environmental Systems, Family & Consumer Sciences, Food Safety, Sustainable Agricultural Production Systems

Protecting Environmental and Natural Resources

There is a critical need to proactively and comprehensively promote environmental stewardship and to protect environmental resources and ecosystem functions through conservation, sustainable and climate-smart agriculture and timber production. Subsequently, it is critical to address the issues impacting the quality of our soil, water, air and the plants and animals that depend on it. Our work includes providing scientific solutions for animal waste management, wastewater treatment and management, nutrient management, septic systems, wetland management, soil properties, saltwater intrusion, and fishery and pond management. Programs support the expansion of production systems for biofuels and bio-based products, including non petroleum-based fuels, power sources, and chemicals. We also have robust extension programs that support forestry and wood products.

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