

Critical Issue 1: 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.

Program 1: Plant Production Systems

Issue: North Carolina row crop producers grow approximately 4.4 million acres of row crops each year with the highest acreage being planted to soybean, corn, cotton, and wheat ranked in order respectively. Row crops contributed over \$2.8 billion in sales to North Carolina communities, as reported in the 2022 Census of Agriculture. Most of the counties in the state grow corn, soybean, and small grains (wheat, barley, or oats) with cotton and peanut being confined to fewer, better suited areas of the state. In addition, the North Carolina horticulture industry is the most economically diverse area of agriculture in the state encompassing greenhouse production, landscape plantings, and large and small acreage production of fruits and nuts, vegetables, floriculture, herbs, mushrooms, turf, and other specialty commodities. Apples, grapes, peaches, blueberries, and strawberries are among many fruits grown in NC. Vegetable production across the state includes white potatoes, sweet potatoes, snap beans, cabbage, cucumbers, pumpkins, bell peppers, squash, tomatoes, cantaloupe, and watermelon. Additionally, floriculture production involves bedding and garden plants, herbaceous perennials, potted flowering and foliage plants, cut flowers and greenery, and plant propagative material. All 100 counties in NC are involved in commercial horticulture producing at least one or more fruit, vegetable, nut, berry crop(s), or turf. NC has extensive natural resources that vary across the state; as a result, there are many challenges to address in order to ensure that production practices are economically and environmentally sustainable for rural, agriculture- based communities.

Goal: To provide research-based information across all areas of plant production to ensure the safety and security of food produced, support sustainable agricultural production, and increase profitability through increased yields, improved quality, decreased input costs, and rapid, collaborative responses to unforeseen challenges.

Objective 1: Increase knowledge and utilization of best management plant production practices (BMP) for producers and industry stakeholders through individual and group-based training opportunities, technical assistance, websites, and publications.

Objective 2: Increase adoption of cultural, chemical, and mechanical methods into production systems to prevent or delay resistance to, or reduce the need for, pesticides.

Objective 3: Increase the transfer and utilization of research-based knowledge of practical, decision-making tools including precision agriculture, remote sensing, or other technology-based advancements.

Target Audiences: row crop producers, commercial ornamental, fruit and vegetable growers and retailers, nursery and landscape professionals, crop advisors, commodity governance boards, NCD&CS regional agronomists, economic advisors

Activities

- Conduct cultivar, hybrid, and/or variety performance evaluations and make results available to stakeholders using appropriate delivery platforms including workshops, certification, and educational opportunities, on-site demonstrations, on-farm trials, fact sheets, newsletters, website portals, YouTube videos, etc.
- Develop and encourage the adoption of research-based BMPs and decision making tools and make information available to stakeholders using appropriate delivery platforms including workshops, certification, and educational opportunities, on-site demonstrations, on-farm trials, fact sheets, newsletters, website portals, YouTube videos, etc.
- Provide training for county and regional agents, industry partners, and producers through individual and group-based training opportunities.
- Provide "Rapid Response" real-time solutions to on-farm/on-site problems encountered during the season through in-person visits, social media outlets, phone calls, and other platforms.

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Program 2: Animal Production Systems

Issue: North Carolina ranked 6th in the U.S. for animal production during 2022 with every county (out of 100 counties) producing some type of animal-sourced product. Animal agriculture in North Carolina includes poultry (broilers, turkeys, layers, and others), livestock (cattle, calves, pigs, sheep and goats), dairy, and others (equine, aquaculture, wool, etc.). Livestock, dairy, and poultry production made up 75% of the farm cash receipts in 2022 out of the total of \$18.7 billion. The total inventory of animals across the state in 2022 was 798,106 cows, calves, sheep, and goats; 8.2 million hogs and pigs; 976.2 million broilers, 15.7 million turkeys and 14.5 million layers. Delivering information on animal agriculture is critical for general production as well as biosecurity, breeding and genetics, nutrition and feeding, forage production and grazing, selection and evaluation, disease prevention and mitigation, economics, and soil, water quality, and odor management. In addition, community-facing platforms provide opportunities to engage with resident stakeholders through equine and animal husbandry programs.

Goal: To provide research-based information across all areas of animal production, forage, and pasture management to ensure the safety and security of food produced, support sustainable agricultural production, increase profitability, and protect animal health & welfare through improved quality, decreased input costs, and rapid, collaborative responses to unforeseen challenges.

Objective 1: Increase knowledge and utilization of best management practices (BMP) for sustainable commercial-scale animal production through individual and group-based training opportunities, technical assistance, websites and publications.

Objective 2: Increase the transfer and utilization of research-based knowledge of practical, decision-making tools including advanced production technologies and other technology-based advancements.

Objective 3: Engage and increase the knowledge of residents in animal husbandry and biosecurity through hands-on programming that might include backyard poultry programs and limited-space activities with goats, sheep, rabbits, calves, or other species.

Target audiences: animal producers, commercial feed producers, livestock and animal associations, national and state agencies, and urban and resident stakeholders

Activities

- Develop and deliver information on the biology, production, management, and care of animals to stakeholders through workshops, certification, and educational opportunities, on-site demonstrations, on-farm trials, fact sheets, newsletters, website portals, YouTube videos, etc.
- Develop and recommend the adoption of research-based BMPs and decision making tools by making information available to stakeholders using appropriate delivery platforms including workshops, certification, and educational opportunities, on-site demonstrations, on-farm trials, fact sheets, newsletters, website portals, YouTube videos, etc.
- Provide training for county and regional agents, industry partners, and producers through individual and group-based training opportunities.
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Program 3: Consumer Horticulture

Issue: Gardens are woven into the landscapes of our neighborhoods and local communities. Gardening activities can range from planting trees and flowers to increase the curb appeal of a home, to growing food in backyard gardens or community gardens, and even indoor or patio container gardens. Eighty percent of American households participated in a gardening project in 2022 with the average household spending \$616 on lawn and gardening activities, according to the 2023 National Gardening Survey. The same study determined that the average garden yielded \$600 worth of produce (roughly \$1 per square foot). As the popularity of gardening continues to grow, gardeners seek out information to start, maintain and expand their gardens from several sources including Cooperative Extension. Extension uses demonstration gardens to enhance experiential learning through hands-on opportunities. Growing food insecurity and public demand for informational resources on gardening shows an increased need for high-quality, non-formal education that addresses everyday issues using plants. Consumer horticulture is a key program area with the most extensive agricultural engagement effort delivered by the NC Extension Master Gardener program. The NC State JC Raulston Arboretum also offers a wide variety of programs for homeowners and gardeners.

Goal: Increase availability and use of research-based consumer horticulture and gardening knowledge and practices.

Objective 1: Increase the knowledge of community members related to starting and maintaining home, community, or school gardens to grow ornamental plants, fruits, and vegetables.

Objective 2: Increase the use of research-based practices for landscapes, gardens, and lawns by community members (including appropriate plant selection, pest, soil, and water management).

Objective 3: Increase Extension Master Gardener volunteers' knowledge of basic horticultural concepts and skills in resourcing info, answering plant, gardens, and landscape questions, and delivering consumer horticulture educational programming.

Objective 4: Provide opportunities for hands-on learning, inquiry, observation and experimentation.

Target Audiences: residents, community, school and therapeutic gardeners and practitioners, and Extension Master Gardener volunteers

Activities

- Provide individual and group-based training opportunities, garden tours, demonstration gardens, websites, and publications for community members.
- Provide training opportunities for Extension Master Gardener volunteers.
- Provide educational programs and training to promote community, school, and therapeutic horticulture opportunities in the community.
- Develop and encourage the adoption of research-based practices and decision making tools by community members.

Critical Issue 2: Protecting Environmental & Natural Resources

There is a critical need to proactively and comprehensively promote environmental stewardship and to protect environmental resources and ecosystem functions through conservation and sustainable agriculture and timber production. Subsequently, it is critical to address the critical 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 provide support for forestry, wood products, and tourism.

Program 1: Environmental and Natural Resources

Issue: North Carolina's environmental and natural resources are the foundation for many of North Carolina's top industries, including forestry, traditional agriculture, tourism, and community and urban development. For example, North Carolina's 18.7 million acres of forestland supports the forest sector, whose economic contribution in 2021 was \$35.3 billion in industry output to the North Carolina economy, supporting more than 139,700 full-time and part-time jobs with a payroll of about \$8.9 billion. The intrinsic value of the state's natural resources is appreciated and enjoyed by many visitors making it one of the top 10 destinations for visitors each year. It is estimated that 56% of North Carolinians participate in outside activities like hunting and fishing each year, generating as much as \$28 billion in revenue.

As the demand for such services from North Carolina's environmental and natural resources continues to grow, enhancement programming and capacity building is required to sustainably conserve land, water, and forest resources. Efforts to protect and conserve our natural resources will only be successful through the development and promotion of sound management, long-term planning, and responsible practices that will enhance the quality and quantity of service demanded by the public. Critical environmental resource management areas that require attention include water resource management systems and education (irrigation, drainage, water quality, drinking water, watershed management, natural and constructed wetlands, stormwater management, and stream restoration), farm and animal management (animal waste management, livestock and poultry housing), food production, food processing and handling, agricultural machine systems and postharvest processing, and agricultural safety and youth education.

Goal: To sustain the quality and diversity of North Carolina's natural resources by conserving and protecting the environment, boosting sustainable energy and mitigating climate change.

Objective 1: Encourage long-term, natural resource protection by promoting intentional, environmentally sustainable economic development and community resilience.

Objective 2: Increase stakeholder knowledge of natural resource stewardship and improve individual and community well-being through active management, engagement, and conservation.

Objective 3: Improve forest health and enhance natural resource and environmental stewardship through research-based management, education, and engagement.

Objective 4: Increase the forest industry's knowledge of Best Management Practices (BMPs) that promote sound management, sustainability and mitigate environmental related problems.

Target Audiences: Farmers, forest landowners, natural resource professionals, municipal officials, homeowners, engineers, municipal governments, private contractors, landscape architects, and interested citizen stakeholders

Activities

- Develop and deliver environmental and natural resource information to stakeholders through fact sheets, website portals, YouTube videos, etc.
- Develop and encourage the adoption of research-based BMPs through on-site demonstrations, trials, and virtual platforms
- Facilitate and/or conduct agent trainings, regional and state conferences, workshops, certification, and educational opportunities for the target audiences
- Provide "Rapid Response" real-time solutions to on-site problems encountered through in-person visits, social media outlets, phone calls, and other platforms

Critical Issue 3: Enhancing Food Safety, Nutrition and Health in a Sustainable Manner

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 including 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.

Program 1: Food Safety

Issue: Despite food safety communication efforts by many sectors, foodborne illness remains a significant health issue in North Carolina and across the U.S. The Center for Disease Control (CDC) estimates that as many as 48 million cases of foodborne illness occur annually, leaving 128,000 people hospitalized and causing 3,000 deaths. The majority of foodborne illness is caused by 31 major identified pathogens, including norovirus, salmonella, and listeria. Regardless of cause, foodborne illness costs society an estimated \$152 billion annually. Most estimates suggest that 70% of food borne illnesses are acquired outside of the home. There are a multitude of opportunities for foodborne illnesses to be introduced into the food system including poor sanitation during production and processing; unsafe storage and handling of the raw products; improper washing and cleaning of equipment; and undercooking, lack of proper chilling, and cross-contamination. As consumer concerns about food safety increase to unprecedented levels, it is essential to provide training and education based on the best available science. In addition, home food preservation continues to be an area of interest for North Carolinians. The local food movement and current economic situation have led to a resurgence in home food preservation as a viable alternative to contemporary food purchase. When preserving, it is essential to employ evidencable, research-tested strategies and methods to ensure the safest of products. Whether the focus is on safe food handling and or safe food preservation, food safety risk reduction practices create a good sound culture of food safety in our food businesses and homes to protect the health of North Carolinians.

Goal: To enhance food safety throughout the supply chain through producer and consumer-based programming aimed at preventing food safety hazards.

Objective 1: Promote sound agricultural production and harvest methods, hygiene, and other safety methods and procedures to reduce or prevent foodborne illnesses.

Objective 2: Increase processor, manufacturer, and food service industry knowledge of food handling, processing, preparation, cross-contamination, and hygiene-resource limitations that can occur in domestic and imported food to reduce food-related illness outbreaks.

Objective 3: Increase consumer knowledge of food handling, food preservation, preparation, cross-contamination, and hygiene-resource limitations that can occur in domestic and imported food to reduce food-related illness outbreaks.

Target Audiences: Agricultural producers; food processors; transportation facilitators; consumer-focused preparation, processing, cooking, and preservation stakeholders; consumers

Activities

- Develop and deliver food-safety related information to stakeholders through fact sheets, website portals, YouTube videos, etc.
- Develop and encourage the adoption of research-based BMPs through on-site and virtual demonstrations on food preparation, processing, cooking, preservation, and storage
- Facilitate and/or conduct training, regional and state conferences, workshops, certification preparation training and educational opportunities for the target audiences
- Provide "Rapid Response" real-time solutions to on-site problems encountered through in-person and virtual interactions, social media outlets, phone calls, and other platforms

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Program 2: Nutrition & Health

Issue: Chronic disease such cancer, stroke, and heart diseases are among the leading causes of death in North Carolina. The state ranks 24th in the nation for obesity and 18th and 15th highest for diabetes and hypertension, respectively. Through healthy diet and physical activity, many of these chronic conditions are preventable. In North Carolina, less than half of adults meet the minimum recommendations for physical activity, 42.3% consume fruit less than one time daily, and 22.4% consume vegetables less than once a day. Among adults with an annual household income under \$15,000, only 33.9% meet physical activity recommendations and only 15.2% consume the daily recommended servings of fruits and vegetables. Children are following this pattern of behavior, with only 1 in 4 eating the recommended amounts of fruits and vegetables and almost half spending more than 2 hours watching television each day. Additionally, nearly 1.5 million NC residents experience food insecurity, with 1 in 5 children struggling with hunger.

Goal: Reduce chronic disease risk and food insecurity by promoting policies, environments, and education that sustain healthy behaviors through the consumption of healthy diets, active lifestyles, access to nutritious food and the achievement and maintenance of healthy body weights.

Objective 1: Healthy Lifestyles - Improve health and reduce rates of overweight and obesity and prevent chronic disease by increasing knowledge of healthy eating patterns and mindfulness, increasing adult and youth consumption of fruits and vegetables, reducing sodium intake, and increasing the number of people choosing physically active lifestyles.

Objective 2: Policy, System, and Environmental Change - Create healthier communities by modifying policies, systems, and environments to make healthy choices more practical, easy and available to all members of the community and to create an environment that encourages individuals to achieve healthy outcomes.

Objective 3: Food Insecurity - Collaborate to increase availability of nutritionally adequate and safe foods for those NC residents who experience food insecurity.

Target Audiences: limited resource clients, older adults, adults, youth, community stakeholders and decision makers, school systems, food pantries, community partners

Activities

- Develop & deliver in-service training, educational curricula and materials to increase knowledge and skills of Extension agents thus increasing their ability to deliver subject matter content to target populations, and to address policy, systems and environmental change to improve community health.
- Deliver educational programs, food preparation demonstrations, fact sheets, websites, social media, newsletters, and other educational methods to increase knowledge and skills of target populations.
- Lead collaborative efforts to implement policy, systems, and environmental changes within communities to create environments that promote healthy lifestyles.
- Empower families and community members to implement behavioral changes focused on healthy eating patterns and physical activity to improve overall health. Use learned strategies, skills, and resources to reduce the risk of chronic disease and illness.

Critical Issue 4: Enriching Youth, Family & Community Well-Being

There is a critical need for youth to develop skills necessary for work and life readiness. 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, 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, leadership, workforce development, farmworker health, tourism, civic engagement, economic development, digital skills, community planning, and disaster preparedness.

Program 1: Youth Development

Issue: In 2022, North Carolina had 2.3 million youth under the age of 18, or 22% of the state's population. 640,000 of those youth or 28%, live in families that receive public assistance and 388,142 children or 17.2%, live in poverty. 4-H, the oldest and largest youth development organization in North Carolina and the United States, provides opportunities for youth 5 to 18, to identify their passions and develop life-skills. With offices in all 100 counties and the Eastern Band of the Cherokee Indians, 4-H, Cooperative Extension's youth development program focuses on positive youth development, providing safe experiences that increase the likelihood of enhanced wellbeing and optimal development for participating youth. When combined, the elements of youth Sparks: developmental relationships, program quality, and youth engagement create an enriching developmental context for youth participants in 4-H programs.

Goal: Provide opportunities for all youth, ages 5 – 18, to develop work-life readiness skills that prepare them for future success.

Objective 1: Civic Engagement - Teach youth to be well-informed citizens who are actively engaged in their communities and world. Youth will learn about civic affairs, build decision-making skills and develop a sense of understanding and confidence in relating and connecting to other people. Youth will learn to advocate for themselves and others, and the importance of giving back.

Objective 2: Healthy Living - Youth will learn to make healthy choices and live healthy life-styles. By learning the foundations of physical, social and emotional well-being, youth will learn to be champions of healthy living in their families and communities.

Objective 3: STEM Engagement - Youth will identify passions and develop competence in the fields of science, technology, engineering and math through hands-on projects. Youth will be introduced to environmental science, robotics, computer science, geographic information systems, and agri- sciences and develop content knowledge and leadership skills through planned activities preparing them for future success.

Objective 4: Volunteer Development - Volunteers are the hands and feet of the county 4-H agent. Post-pandemic efforts will focus on re-engaging, training and properly managing volunteers to stabilize enrollment and grow the 4-H program. Emphasis will be placed on providing content training and support so that volunteers feel comfortable re-engaging and take the leadership in 4-H Clubs and other delivery modes.

Target Audiences: *youth, volunteers, teachers*

Activities: Develop and offer professional development training for agents and volunteers to enhance content knowledge, competence and confidence. Agents will then conduct subject matter training for youth and adult audiences through a varied array of delivery modes like clubs, camps, in-school, after-school, special project programming, conducted in both live and virtual formats.

Critical Issue 4: Enriching Youth, Family & Community Well-Being

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Program 2: Families and Communities

Issue: Individuals and families in North Carolina face a number of challenges. North Carolina's population includes approximately 2.3 million children under age 18. Within the state there are 4,607 regulated child care centers which enroll 246,622 children and an additional 1,878 regulated family child care homes which enroll 11,820 children. In addition, there are caregivers across the state that lack positive parenting skills. At the other end of the spectrum North Carolina ranks 9th nationally, in the number of people 65 and over. In 2022, the state had more people 60 and over than the youth population under age 18. There is an increasing need for assistance for caregivers. Falls among adults aged 65 and older are common, costly, and preventable. Falls are the leading cause of fatal and nonfatal injuries among older adults. In North Carolina 28.9% of adults age 65 and older reported falling during 2020. Additionally, families are facing financial challenges. Between the amount owed on student loans and home mortgages to current levels of credit card debt, Americans carried a record \$17.5 trillion of debt in 2023. In North Carolina, residents accumulated \$371.9 billion in debt. Interest in homesteading is also on the rise in North Carolina including small scale production of textiles, clothing, crafts and food products.

Goal: Empower individuals and families to build healthy lives and achieve optimal social and economic well-being.

Objective 1: Family Financial Management - Improve individual and family financial stability by teaching residents about financial management skills and strategies (budgeting, record keeping, goal setting, consumer decision making); access to resources that support economic security (i.e. SNAP, SHIP Medicare part D, food budgeting, mortgages, insurance); and implementation of risk management strategies.

Objective 2: Human Development and Family Relationships - Empower individuals to make positive lifestyle choices throughout their lifespan that promote healthy physical, mental, and social development for individuals and families; promote child and adolescent development; utilization of positive parenting practices; and development of effective life skills (stress management, self-care, goal setting, healthy relationships).

Objective 3: Homesteading - Empower individuals to live self-sufficient lifestyles by teaching residents about textile and clothing production, crafts, and food products.

Target Audiences: limited resource clients; older adults; youth; general public; parents and caregivers; childcare, after-school, and elder care providers; community organizations

Activities

- Develop & deliver in-service training, educational curricula and materials to increase knowledge and skills of Extension agents thus increasing their ability to deliver subject matter content to target populations.
- Deliver educational programs, demonstrations, fact sheets, websites, social media, newsletters, and other educational methods to increase knowledge and skills of target populations.
- Empower families and community members to implement behavioral changes and build healthy lives and achieve optimal social and economic well-being. Use learned strategies, skills, and resources to seek out, navigate, advocate for, and secure resources to improve individual and family well-being.

Critical Issue 4: 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, financial management, aging, healthy homes, and disaster readiness, response, and recovery. Critical issues facing communities include economic, social, and environmental resiliency. Our programs that focus on local foods, leadership, workforce development, farmworker health, tourism, civic engagement, economic development, partnerships, digital skills, community planning, and disaster preparedness use a systems and asset based approach to develop innovative and place-based solutions to community needs.

Program 4: Community Development

Issue: North Carolina is changing rapidly. Changing state demographics and shifts in living patterns, new weather norms, and new economic drivers and technologies work together to create a need to help communities navigate the growing rural urban intersection in a way that preserves prime farmland, builds awareness and conflict resolution skills and benefits local economies. A study by an NC State Extension economist found that residential development was the only land use that cost more to support than it created in local tax base. (.76 residential, 4.21 Commercial, and 1.38 agriculture). New technologies are also creating these new living patterns, but variations in broadband access and digital skills are creating an uneven capacity to use these digital capabilities to earn, learn, and be well. 92% of jobs require at least one digital skill, and 1/3 of people do not have the skills they need. Extension is training local residents and business owners on digital skills to create efficiencies in their business/ farm operation, be better prepared for new workforce opportunities, access health services, access education and information, and connect with others to improve their wellbeing. An issue which is not new, but exacerbated by changing demographics and economic structures is the need for local capacity in community engagement, leadership, planning and convening inclusive groups. By engaging a diverse group of Extension clientele to serve as a resource and work alongside local community leaders to address the most challenging issues NC communities face, communities can build capacity for civic dialog on complex issues and make leadership groups more productive and inclusive to create opportunities for partnership and collaboration and optimize community wellbeing. The wellbeing of North Carolinians is determined in large part by local economies. In the past 30+ years, over \$2 billion has been invested in North Carolina communities desiring to spur economic development through downtown revitalization. This investment had resulted in an increase in the number of both new businesses and new jobs. Communities investing in their downtown districts had also seen increased community pride, a greater commitment to historic preservation, and greater support for locally owned businesses. However, there is much more work to do, especially in the rural portions of the state which have experienced a loss in small business over the past two decades. In NC, small downtowns are building local identities to attract new businesses through placemaking, asset assessment and marketing. Extension is committed to working with communities to navigate new economic and demographic realities to come together and better prepare North Carolinians, local community businesses and organizations to thrive.

Goal: Amplify capacity of NC's leaders, organizations and communities to ensure sustainable prosperity for all North Carolinians, build resident's capacity to earn, learn and be well and to catalyze NC's local economies to be attractive places to live, work, and play.

Objective 1: Leadership and Volunteer Development - Strengthen communities by increasing the knowledge and skills and overall numbers and diversity of community volunteers and leaders through general leadership development, facilitation skills, volunteer training, communication, increasing inclusion and belonging within community groups.

Objective 2: Organization and Community Development - Build organizational capacity to accomplish goals through training and technical assistance in strategic planning, governance, partnership development and facilitating complex decision making.

Objective 3: Urbanization and Demographic Shifts - Help communities understand current and projected shifts in community demographics and living patterns and plan accordingly. Training and technical assistance may include demographic trends, farmland preservation, land use and urban rural interface.

Objective 4: Rural Physical and Behavioral Health and Safety – A healthy workforce is critical for community social and economic wellbeing. To increase workforce health and wellbeing agents will provide training and technical assistance in farmworker health and safety as well as reducing Farm Stress and supporting rural well-being.

Objective 5: Digital skill, Workforce and Business Development – Enhance an individual's workforce skills through technical skills training and certified career pathways created through focused community coalitions; increase business retention, expansion and creation strategies to grow local job opportunities and businesses; assess employee needs to improve employee work experiences and business profitability.

Objective 6: Rural Development – Support downtown revitalization through participation and co- leadership of local development committees and teaching local economic development assessment and planning. Present workshops on developing and improving tourism businesses, use of tourism marketing platforms, Ag Awareness, and buy local campaigns; examine the role small- scale manufacturing can play in revitalizing rural downtown areas.

Target Audiences: community leaders, volunteers, community organizations and informal groups, local government, local farmers and small business owners, farmworkers, farm labor contractors, limited resource clients, community workforce development committees, downtown development partnerships and committees, real estate developers, community members, youth

Activities

- Develop and deliver in-service training, educational curricula and materials to increase knowledge and skills of Extension agents thus increasing their ability to facilitate community decision making, develop leaders, and deliver subject matter training to target populations.
- Deliver educational programs, demonstrations, fact sheets, websites, social media, newsletters, and other educational methods to increase knowledge and skills of individuals, organizations and/or communities.
- Facilitate planning efforts to support organizations, businesses, and local communities.
- Through increased knowledge, skills and engagement, empower individuals and community members to develop and implement strategic plans to implement new practices that enhance optimal social and economic well-being for all community members; engage communities to build workforce opportunities and pipelines; and use learned strategies, skills, and resources to seek out, navigate, advocate for, and secure resources to improve individual and community well-being.
- Through increased knowledge, skills and confidence, empower individuals, organizations and communities to learn and apply strategies, skills, and resources to better lead, reach out, govern, partner, and secure resources to improve community well-being.

Critical Issue 4: 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, financial management, aging, healthy homes, and disaster readiness, response, and recovery. Critical issues facing communities include economic, social, and environmental resiliency. Our programs that focus on local foods, leadership, workforce development, farmworker health, tourism, civic engagement, economic development, digital skills, community planning, and disaster preparedness use a systems and asset based approach to develop innovative and place-based solutions to community needs.

Program 6: Local Food Systems

Issue: North Carolina is uniquely situated as a state with deep agricultural roots and is rapidly urbanizing. This dynamic creates an opportunity to foster a strong and resilient localized food system with social, economic, and environmental benefits for the state. Supporting this type of local food system will take focused and sustained effort, of which Extension is a leading partner. Consumer demand for locally-produced food contributes to the creation of jobs and opportunities throughout North Carolina for our farmers, businesses owners and entrepreneurs that store, process, market and distribute locally produced foods. As markets for local foods grow, so do opportunities for farms and local food businesses. Resilient localized food systems ensure a continual supply of safe, accessible food for community members while supporting the economic vitality of farmers of all scales. Agritourism operations provide educational and recreational opportunities for consumers to learn about agriculture and connect with local farmers. North Carolina is home to 42,817 farms which generate approximately \$18.7 billion in cash receipts of which almost \$87 million are direct to consumer food sales. Local market channels, including direct to consumer and agritourism operations generate revenue for these operations and build connections with consumers. While other local food market channels such as farm to institution and local restaurants also provide opportunities to build cultural connections to local agriculture while providing stable markets for local farmers. For every dollar spent on local products, between \$0.32 and \$0.90 worth of additional local economic activity takes place. Many of North Carolina's 23,000 new and beginning farmers lack prior agriculture experience but growing support for local foods and sustainability has driven interest for a diverse group of young people to go into farming and associated food businesses. A diversity of farmland access strategies, farmer training programs, and markets are needed to support this new generation of farmers. In addition to leveraging local food as an economic development opportunity, locally produced foods can be used to address local food access and insecurity challenges. Between 2020 and 2022, the rate of food insecurity in North Carolina sat at around the national average of 11.2%, meaning that over 1 million people in North Carolina didn't know where their next meal would come from. Local food systems provide an opportunity for community ownership and community-based strategies to address this challenge. Strategies such as sliding scale community-supported agriculture (CSA) markets, farm to food pantry programs, and emergency food purchasing from local farmers can help address this complex challenge.

Goal: Create opportunities for resilient local food systems that support increased production, processing, marketing, and consumption of food that is grown, caught, and raised within North Carolina.

Objective 1: Food & Farming Systems - Increase the viability of small and medium-scale, beginning, and sustainable farming through programming and technical assistance to increase the capacity of each sector of the local food supply chain to store, process and transport its products to market; to support sustainable production; to enable more residents to participate in the market for local agricultural products; to help local farmers participate in a spectrum of market opportunities including direct sales, farm to institution programs, and commercial markets; to preserve sufficient farmland to help sustain a vibrant agricultural economy; and to increase access to locally produced food through food assistance distributions and programs.

Objective 2: Regional Economic Development - Build recognition for the role of local food as an element of vibrant communities; provide support for food entrepreneurs and agritourism; and support urban- rural connections. Promote efforts to improve the marketing of food from local farms. Provide technical support in the development of projects, facilities, and partnerships that enhance diverse local food processing, aggregation and distribution options, such as food hubs, community kitchen incubators and community food processing facilities. Increase local food demand through partnerships and programs aimed at increasing the community's access to local foods.

Objective 3: Connect and Support Food System Infrastructure - Support connections between and address gaps along local food value and supply chains. Connecting farmers with infrastructure such as land, cold storage, and direct to consumer markets can support resilient food related businesses, a foundation of a strong local food system. Examples include farmers market relocations/retoolings and best practices, Community/Ag Center Planning, greenways, smart growth, broadband access and utilization. Participate in planning committees to plan for and build local infrastructure and provide training in capacity building, strategic planning, resource development,

how community issues can be addressed through infrastructure development, and/or how infrastructure can be better utilized to optimize community well-being.

Target audiences: farmers, food businesses, entrepreneurs, wholesalers, schools and other local institutions, restaurants, farmers markets, food hubs, nonprofits such as food banks and food pantries, local governments, youth, consumers

Activities:

- Develop and deliver research based in-service training and resources to increase capacity of Extension to deliver technical assistance and subject matter content to target populations.
- Partner with state and local leaders to implement innovative local food system development strategies.
- Identify local needs and challenges and deliver targeted technical assistance, educational programs, demonstrations, fact sheets, websites, social media, newsletters, and other resources to increase knowledge and skills of target populations.
- Through increased clientele knowledge, skills, and confidence, target populations are provided with solutions and empowered to implement strategies to fuel economic development and make behavioral changes that enhance sustainable local food economies. Through programs, clients are equipped to effectively transfer knowledge and skills into practical applications and use learned strategies, skills, and resources to seek out, navigate, advocate for, and secure resources to improve farm, local food system, and consumer well-being.