

## Critical Issue 1: Improving Plant and Animal Agricultural Systems

There is a critical need to increase agricultural food, fiber, and fuel productivity and to increase the profitability of farms and agribusinesses 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, 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, product quality, health, wellbeing and biosecurity.

### Program 1: Agronomic Crop Production (ANR)

**Issue:** North Carolina row crop producers grow approximately 3.6 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 \$1.8 billion in sales to North Carolina communities, as reported in the 2019 USDA State Agriculture Overview. Most of the counties in the state grow corn, soybean, and small grains (wheat, barley, or oats) with cotton being confined to fewer, better suited areas of the state. 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:** Improve crop production efficiency through increased yields, improved quality, and decreased input costs.

**Objective 1:** Increase knowledge of best management row crop production strategies (BMP) for NC producers and industry stakeholders involved in soybean, corn, cotton, peanut, small grain, and other traditional and novel row crops.

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

**Objective 3:** Enhance the transfer and utilization of research knowledge of practical, in-field decision-making tools including precision agriculture, remote sensory technologies, or other technology-based means.

**Target Audiences:** row crop producers, crop consultants, commodity governance boards, NCDA&CS regional agronomists, NC Extension agents and specialists, economic advisors

#### Activities

- Conduct cultivar, hybrid, and/or variety performance evaluations, data analyses, and make production information available to stakeholders using appropriate delivery platforms.
- Provide training for Extension specialists, county and regional agents, industry partners, and producers through individual and group-based training opportunities.
- Develop or refine general production BMPs (i.e., planting date, seeding population, planting depth, planter efficiency, soil fertility/fertilizer placement, etc.) in production-scale, result-oriented demonstration and trials.
- Evaluate current and emerging pest management programs for use in NC row crop production
- Demonstrate the practical utility of large-scale pest management practices and help producers make situational adjustments needed for the BMP.
- Improve information transfer to ensure real-time updates by program team members across the state's various growing regions.
- Demonstrate the utility and applicability of variety-selection decision models utilizing meta-data gathered from the NC State Official Variety Trials.
- Provide "Rapid Response" real-time solutions to in-field problems during the season.

## **Program 2: Animal Production Systems (ANR)**

**Issue:** North Carolina ranked 8th in the U.S. for animal production during 2019 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 other livestock (equine, aquaculture, honey, wool, etc.). Livestock, dairy, and poultry production made up almost 70% of the farm cash receipts in 2019 out of the total of \$10.7 billion. The total inventory of animals across the state at the beginning of 2020 was 810,000 cows, calves, sheep, and goats; 9.5 million hogs and pigs; 24.2 million chickens, 916 million broilers, and 13.4 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:** Increase profitability of animal agriculture, equine, and forage production.

**Objective 1:** Develop and/or refine BMPs for animal production strategies for commercial-scale production systems.

**Objective 2:** Facilitate the transfer of research-based knowledge through agent, other advisor, and producer training as well as certification and continuing education courses.

**Objective 3:** Increase the knowledge of producers through individual and group-based training opportunities by Extension specialists/associates, county and regional agents, and research partners.

**Objective 4:** Engage and increase the knowledge of rural and urban residents in animal husbandry and biosecurity through hands-on programming that might include livestock shows, backyard poultry programs and limited-space activities with goats, sheep, rabbits, calves, or other species.

**Target audiences:** Animal and commercial feed producers, national and state agencies, Extension agents and specialists, and urban and resident stakeholders

### **Activities**

- Develop and deliver production information to stakeholders through fact sheets, website portals, YouTube videos, etc.
- Develop and encourage the adoption of research-based BMPs through on-site demonstrations, hands-on workshops, on-farm trials, and virtual platforms.
- Conduct agent training, regional and state conferences, workshops, certification, and educational opportunities for the general public, commercial producers, feed manufacturers, and public and private partners.
- Provide “Rapid Response” real-time solutions to on-site problems encountered during the season through in-person visits, social media outlets, phone calls, and other platforms.

### **Program 3: Horticulture Plant Systems (ANR)**

**Issue:** 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. 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.

Horticulture also includes consumer and community-based programs implemented in rural and urban locations. Home horticulture is a key program area with the most extensive agricultural engagement effort delivered by the NC Extension Master Gardener program. This train-the-trainer opportunity increases the knowledge and skills of participants who then assist county agents in educating the public to decrease the misuse of fertilizers, insecticides, and pesticides in gardens, home lawns, and landscapes; increase overall food production and availability; enhance wildlife habitat; and improve human health and wellbeing. The NC State JC Raulston Arboretum also offers a wide variety of programs for industry professionals and gardeners.

**Goal:** Increase profitability and efficiency across all areas of the horticulture industry through adoption of recommended Best Management Practices (BMPs).

**Objective 1:** Develop and/or refine BMPs for horticulture production strategies for homeowners, producers and other stakeholders involved in fruit and nut, vegetable, floriculture, and other commercial-scale production systems.

**Objective 2:** Integrate cultural, chemical, and mechanical methods into field and greenhouse production systems to reduce or eliminate the need for pesticide-based production tools.

**Objective 3:** Providing educational opportunities to facilitate the use and transfer of research-based knowledge through engagement with residents, farmers, and nursery professionals through county-based Extension Master Gardener programs and Extension professionals and resources.

**Objective 4:** Increase the knowledge of commercial producers, urban stakeholders, and residents through individual and group-based in person and virtual training opportunities, websites, and publications by Extension specialists/associates, county and regional agents, and research partners.

**Target Audiences:** Commercial ornamental, fruit and vegetable growers and retailers (both in greenhouse and field settings), nursery professionals, residents, community & therapeutic gardeners and practitioners, Extension Master Gardeners, NC Extension agents and specialists, and local stakeholder

#### **Activities**

- Conduct variety performance evaluations and make production information available for stakeholders through fact sheets, website portals, YouTube videos, etc.
- Develop and encourage the adoption of research-based BMPs through on-site demonstrations and trials.
- Evaluate current and emerging pest management programs for use in commercial, public, and individual residential situations.
- Conduct agent training, workshops, and educational opportunities for the general public and industry partners interested in horticulture.
- Provide “Rapid Response” real-time solutions to on-site problems encountered during the season through in-person visits, social media outlets, phone calls, and other platforms.

## Critical Issue 2: Protecting Environmental and Natural Resources

There is a critical need to proactively and comprehensively promote environmental stewardship and to protect the natural environment through conservation and sustainable agriculture and timber production and to subsequently address the critical issues impacting the quality of our soil, water, and air. Our work includes providing scientific solutions for animal waste management, wastewater treatment, nutrient management, septic systems, wetland management, soil properties, 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 (ANR/CNR)

**Issue:** North Carolina's extensive environmental and natural resources provide a wide range of services to include clean air, clean water, flood and erosion control, opportunities for recreation, education and cultural enrichment, and food, fuel and fiber. 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 2018 was \$33.6 billion in industry output to the North Carolina economy, supporting more than 150,400 full-time and part-time jobs with a payroll of about \$8.3. 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:** Promote economic development and alternative income through sound business skills and industrial, community, and leisure activities.

**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 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, Extension agents, 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

There is a critical need to ensure we have a safe and nutritious food supply. Our efforts help protect the 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 healthy food, our work includes development and production of new food products that promote health and prevent disease. There is also a critical need to ensure that individuals, families, and communities have the knowledge to make choices about selecting nutritious food and living healthy lifestyles that reduce their risk of chronic disease and that they have access to safe, high quality food at reasonable prices.

#### Program 1: Food Safety (FCS, ANR)

**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. Increased occurrence of foodborne illnesses and an increasingly diverse world market have refocused food safety programming on prevention. As consumer concerns about food safety increase to unprecedented levels, it is essential to provide training and education based on the best available science.

Home food preservation continues to be an area of interest for North Carolinians wanting to take advantage of the abundance of available foods from home gardens or local markets. 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 for farmworkers and consumers.

**Objective 2:** Increase processor and consumer knowledge of food handling, processing, preparation, cross-contamination, and hygiene-resource limitations that can occur in domestic and imported food.

**Objective 3:** Improve consumer health and reduce subsequent food-related illness outbreaks through research-based management, education, and consumer engagement.

**Objective 4:** Increase producers' knowledge of Best Management Practices (BMPs) that reduce the likelihood of food-borne illness.

**Target Audiences:** *Agricultural producers; food processors; transportation facilitators; consumer-focused preparation, processing, cooking, and preservation stakeholders; urban and rural 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 agent training, regional and state conferences, workshops, certification preparation training (i.e., Good Agricultural Practices and Food Safety Modernization Act) 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

## **Program 2: Nutrition & Health (FCS)**

**Issue:** Chronic disease such cancer, stroke, and heart diseases are among the leading causes of death in North Carolina. The state ranks 13th in the nation for obesity and 18th and 11th 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 closely in their footsteps, 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. Food insecurity has increased as a result of the pandemic.

**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. **Target Audiences:** *Extension agents, limited resource clients, older adults, adults, youth, general public*

**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. **Target Audiences:** *Extension Agents, community stakeholders and decision makers, school systems, food pantries, adults, youth, general public*

**Objective 3: Food Insecurity** - Collaborate to increase availability of nutritionally adequate and safe foods for those NC residents who experience food insecurity. **Target Audiences:** *Extension Agents, community partners, limited resource families, adults and youth*

### **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.
- Through increased clientele knowledge, skills and confidence, 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 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 parenting, child care, 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 leadership, workforce development, entrepreneurship, civic engagement, volunteerism, community planning, and disaster preparedness.

### Program 1: 4-H Youth Development (4-H, FCS, ANR)

**Issue:** In 2019, North Carolina had 2.3 million youth under the age of 18, or 22% of the state's population. 561,000 of those youth or 25%, live in families that receive public assistance and 451,103 children or 20.2%, 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 identify their passions or Spark and develop life-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. **Audience:** *Youth*

**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. **Audience:** *Youth*

**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. **Audience:** *Youth*

**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 providing support so that volunteers feel comfortable re-engaging and take the leadership in 4-H Clubs and other delivery modes. **Audience:** *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 volunteer 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.

## Program 2: Families and Communities (FCS)

**Issue:** Individuals and families in North Carolina face a number of challenges to health and economic wellbeing. North Carolina's population includes over 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. At the other end of the spectrum North Carolina ranks 9th nationally, in the number of people 65 and over. In 2019, the state has more people 60 and over than under 18 years. Between the amount owed on student loans to home mortgages to credit card debt, in 2020 Americans carried a record \$14 trillion of debt. In North Carolina, residents accumulated \$371.9 billion in debt. Approximately two-thirds of American families live in a home with at least one health hazard. Further, 10.6% of housing in NC has the potential for elevated lead exposure risk. Radon, the leading cause of lung cancer among non-smokers and the 2nd leading cause of cancer among all individuals has elevated levels across the state. Home hazards are also a concern, as 24.8% of adults age 65 and older reported falling during 2017. North Carolina experiences its fair share of natural disasters each year. The state has been hit by tornadoes, floods, hurricanes, lightning strikes, snow and ice storms. Between 1953 and 2019, North Carolina declared 65 major disasters, of which hurricanes and severe storms occurred the most.

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

**Objective 1: Housing** - Improve quality of life and well-being for consumers by teaching principles of maintaining housing to create healthy indoor environments (mold prevention, energy efficiency, reducing contaminants, home maintenance); home safety across the life-span; and disaster preparedness, response, and recovery. **Target Audiences:** *Extension Agents, homeowners, renters, real estate and construction professionals*

**Objective 2: 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. **Target Audiences:** *Extension Agents, limited resource clients, older adults, youth, general public*

**Objective 3: Human Development and Family Relationships** - Empower individuals to make positive lifestyle choices throughout their lifespan that promotes healthy physical, mental, and social development for individuals and families; promotes child and adolescent development; utilization of positive parenting practices; and development of effective life skills (stress management, self-care, goal setting, healthy relationships). **Target Audiences:** *Extension Agents, 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.
- Through increased clientele knowledge, skills and confidence, 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.

### **Program 3: Economic Development (CRD)**

**Issue:** The well-being of North Carolinians is determined in large part by local economies. Vibrant local economies have an engaged workforce with a sense of opportunity, thriving downtowns with many local businesses, and high-quality economic development planning that builds on local assets. In NC, small downtowns are building local identities to attract new businesses through placemaking and asset assessment. In the past 30+ years, over \$2 billion had 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 addition, there have been tremendous negative impacts on our local economies as a result of COVID-19 on the leisure, hospitality, and manufacturing sectors.

**Goal:** Catalyze NC's local economies to be attractive places to live, work, and play.

**Objective1: 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.

**Target Audiences:** *Extension Agents, limited resource clients, youth, general public, local businesses, community workforce development committees*

**Objective 2: 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 agritourism and other 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:** *Extension Agents, downtown development partnerships and committees, community members, local farmers and small business owners*

**Objective 3: Economic Development Strategic Planning** – Lead workshops on community assessment and asset development. Work with local planning groups to develop and implement missions, visions and strategic plans. Conduct workshops on building inclusive planning groups and provide technical assistance to community groups that want to become more inclusive. Educate target groups on wage policies and practices to improve the quality of life for all workers. **Target Audience:** *Extension Agents, downtown development partnerships and committees, small business owners, local nonprofit 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.
- Through increased knowledge, skills and engagement, empower individuals and community members to develop and implement strategic plans based on inclusive and asset-based planning practices to achieve optimal social and economic well-being. Engage communities to build workforce opportunities and pipelines. Use learned strategies, skills, and resources to seek out, navigate, advocate for, and secure resources to improve individual and community well-being.

## **Program 4: Community Development (CRD)**

NC's community well-being is built on a foundation of inclusive, empowered leadership and productive decision making. NC has vast untapped potential and resources in its leaders, organizational governance, community decision making and collaborations. Today's communities face issues too complex to be solved by the same group of people with methods that preserve the status quo. Non-whites are either not represented or underrepresented on county commissions in the state. And though, non-whites compose 30% of the state's population, only 23% of businesses are minority-owned. Furthermore, national data shows that non-profit sector leadership is over 80% white. By engaging a diverse group of Extension clientele to serve as a resource and work alongside these community leaders to address the most challenging issues NC communities face, like economic mobility, bridging the rural-urban divide, and reconnecting to our communities; 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.

**Goal:** Amplify capacity of NC's leaders, organizations and communities to ensure sustainable and equitable prosperity for all North Carolinians.

**Objective 1: Leadership and Volunteer Development** - Strengthen communities by increasing the knowledge and skills, overall numbers and diversity of community volunteers and leaders (general leadership development, facilitation skills, volunteer training, communication, assessing personality types, increasing DEAI knowledge and skills and inclusion within community groups). **Target Audiences:** *Extension agents, community leaders, volunteers, community groups, general public*

**Objective 2: Organization and Community Development** - Build organizational capacity to accomplish goals through training and technical assistance in strategic planning, governance, and facilitating complex decision making. **Target Audiences:** *Extension agents, community leaders, volunteers, community organizations and informal groups, general public*

**Objective 3: Expanding Reach and Increasing Inclusive Engagement** - Extension will increase its outreach to new audiences through training and technical assistance in increasing racial understanding, cultural competency, increasing diversity, equity, accessibility, and inclusion and reaching hard to reach audiences. **Target Audiences:** *Extension agents, community leaders, volunteers, community organizations and informal groups, general public*

**Objective 4: Partnership and Collaboration Development** - Extension agents will work with community groups and coalitions to increase collaborative practices and effectiveness. Training and technical assistance will increase knowledge and skills in partnership development and maintenance, working with difficult people, fiscal and project management, avoiding turf issues, etc. **Target Audiences:** *Extension agents, community leaders, volunteers, community organizations and informal groups, general public*

### **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.
- Through increased knowledge, skills and confidence, empower individuals, organizations and communities to implement new practices that enhance optimal social and economic well-being for all community members. Community members learn strategies, skills, and resources to better lead, reach out, govern, partner, and secure resources to improve community well-being.

## Program 5: Infrastructure Development (CRD)

North Carolina is changing rapidly. Increase in climate events, shifting climate patterns, state demographics and shifts in living patterns, public health crises, and the influx of migrant workers create a need for disaster preparedness, health and safety education, and financial literacy and planning. Evidence of rural stress, broadband connectivity rates and utilization, number of communities needing upgraded infrastructure and services affect the state's opportunities to attract new businesses and residents.

**Goal:** Strengthen NC's infrastructure and resilience to build on technological opportunity and meet rapidly shifting climate impacts, demographics, workforce health and safety, and consumer demands that build the future economic, health and social well-being of NC communities.

**Objective 1: Climate Resilience** - Increase community climate resilience through training and technical assistance in low impact development, green infrastructure implementation, and community level disaster planning and resilience. **Target Audiences:** *Extension agents, community leaders, volunteers, community organizations and informal groups, farmers, real estate developers, general public*

**Objective 2: 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, smart growth, and urban rural interface. **Target Audiences:** *Extension agents, community leaders, volunteers, community organizations and informal groups, local government, real estate developers, general public*

**Objective 3: Workforce Physical and Behavioral Health and Safety** - 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. **Target Audiences:** *Extension agents, community leaders, volunteers, farmers, farmworkers, FLCs, general public*

**Objective 4: Infrastructure to Meet Consumer Needs and Demands** - 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:** *Extension agents, community leaders, volunteers, community organizations and informal groups, local government, general public*

### 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.
- Through increased clientele knowledge, skills and confidence, 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, advocate for, share and secure resources to improve individual and family well-being.

## **Program 6: Local Food Systems (CRD)**

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. North Carolina is home to 46,418 farms which generate approximately \$12.9 billion in cash receipts of which almost \$70 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. 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 20,298 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.

**Goal:** Create opportunities for resilient local food systems that promote 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.

**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.
- 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.