

Persons with disabilities and persons with limited English proficiency may request accommodations to participate by contacting Carolyn Shepherd, County Extension Director, at (336) 846-5850 or carolyn\_shepherd@ncsu.edu or in person at the County Extension Office at least five days prior to the event. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, veteran status or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A & T State University, U.S. Department of Agriculture, and local governments cooperating.

# North Carolina Cooperative Extension, Ashe County Center



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### 2016 Ashe County Program Impact Report

Approved: January 18, 2017

### I. Executive Summary

Ashe County is a mountainous county in the northwestern corner of North Carolina with a population of 27,281, located in the Blue Ridge Mountains. The county experiences four distinct and beautiful seasons. The charm of small town living draws thousands of tourists each year. It is the home of thriving businesses including agriculture. North Carolina State and A & T State Universities, through Cooperative Extension, Ashe County Center, provides the presence of major university resources in the county.

Cooperative Extension, Ashe County Center Staff used Advisory Leadership to determine programming needs for 2016 along with collaborative partners. Priorities identified for needed Extension programming included: sustainable agriculture and profitability, food security, youth development, healthy families and financial management.

Through Extension's efforts, 6,415 volunteer contacts were made, providing 34,796 hours of volunteer service, valued at \$819,794 to implement research based educational programs based on identified needs. Ashe County Center Staff secured \$396,710 in additional resources that supported programming efforts.

Agriculture continued to be the largest industry in the county and is diverse in its commodities. The County was number one in the nation in the production of Christmas trees and greenery, and \$85 million industry. Cattle production ranked 13th in the state. The production of cucurbits, such as 950 acres of pumpkins and squash, other vegetables and hay increased.

On-going Extension research in the County enabled participating Christmas tree growers to produce a higher quality Christmas tree at a lower cost, harvest and ship fresher trees, which enabled them to maintain national and international contracts and retained their market share. Hay quality increased throughout the county as a result of Extension recommendations including soil tests, forage and moisture testing, and proper forage management. Training in body condition scores, along with pregnancy and bull fertility testing and better management practices resulted in \$425,000 in additional profits for participating producers. Cucurbits continued to diversify farm production as producers learned, through local Extension research, the best varieties, appropriate spacing and other best practices on 950 acres grown last year. One hundred and seventy participants received pesticide licenses, re-certification or became certified as a private or commercial pesticide license applicator. Two hundred and seventy five people received Farm Safety training.

Ashe County 4-H continued to be a vital resource for youth and families. Over 300

children participated in high quality 4-H Afterschool programs each school day and school age youth participated in the six-week full day summer day camp, both at no cost to parents. Seventy percent of youth participating in Afterschool tutoring sessions improved academically. One hundred percent gained knowledge of life skills and 80% put into practice skills learned. Additional 4-H successes included: initiated an eighth grade leadership program through collaboration with the Ashe Chamber of Commerce and Ashe County Middle School; a collaborative, two year leadership club for High School juniors and seniors continued, 4-H Stockman's Team placed High Team in Skill-a-thon at the North Carolina State Livestock Judging competition and brought home ribbons from five other events and a 4-H Video Club continued. The Migrant Education Program Coordinator enrolled 83 migrant children in local schools and connected 42 families to community services, educational opportunities, translated and interpreted for producers and farm workers, pesticide education and farm safety training.

Family and Consumer Sciences programming included: local foods, food preservation, food safety, and health and wellness. Seven hundred and forty youth participated in the 4-H Expanded Food and Nutrition Education Program (EFNEP). Eighty-six percent of participants showed improvement in their knowledge of nutrition and the origin of their food, 79% improved food handling practices and 43% increased their level of physical activity. Thirty-eight commercial food service owners and managers gained knowledge of safe food handling practices and 36 were nationally certified in food safety. Seventy five clients gained knowledge of recommended food preservation practices with 85% planning to practice knowledge gained. Local agencies referred drinking water quality questions to Extension. Eighty water samples from private wells and springs that provides drinking water for 102 households were screened for coliform bacteria. Thirty percent of the water samples screened were found to be contaminated, and participants took steps to improve their water quality based on recommended practices.

### **II. County Background**

Ashe County is a mountainous county in the northwestern corner of North Carolina with a population of 27,281, located in the Blue Ridge Mountains. The county experiences four distinct and beautiful seasons. The three townships include Jefferson, the county seat, Lansing and West Jefferson. The charm of small town living draws thousands of tourists each year resulting in \$50.07 million dollars in 2014. Ashe County is the home of thriving businesses including GE Aviation and American Emergency Vehicles, the number one manufacturer of domestic ambulances in the United States. Ashe County Airport has the highest elevation of any airport in North Carolina. The county is the leading producer of Christmas trees and greenery in the United States.

White persons, not of Hispanic/Latino origin account for 92.4% of the population. The largest growing minority group is of Hispanic/Latino origin and comprises 5.3% of the population. Linking migrant families to services continues to be an ongoing need. One hundred percent of students in the three elementary schools receive Title 1 services. Working parents depend on after school for tutoring/homework assistance, supervision and enrichment while they are at work and summer camps. Of the students who began

high school four years ago, 86% graduated in 2014.

Agriculture is a large component of the local economy, led by Christmas trees and greenery which were an \$85 million industry in 2015. Christmas trees and greenery support 800 year round jobs and an additional 2,000 jobs during harvest season. The County ranks 13th in cattle production in the state with over \$12.7 million realized last year from cattle production and sales; other agriculture products include hay (over 15,000 tons in 2015); pumpkins and squash (cucurbits) were grown on 925 acres in 2015; fruits, vegetables, berries, milk, wool, honey, sheep and goats providing diverse agriculture commodities. The local food movement is strong with producers unable to meet demand. Many farmers work off-farm for the majority of their income, with farm income under \$60,000. Interest in gardening is high, as is home food preservation.

Adult and childhood obesity rates remain high in the county and are considered a major health issue. The county is a graying community with over 30% of the County's population over the age of 60. By 2020 the County is projected to rise to fifth in the state of persons 65 years of age or older.

Cooperative Extension, Ashe County Center used the county and program area advisory leadership to identify programming needs through a county-wide needs assessment. Programming areas that were identified:

- Continue to support current farming operations through education of best practices
- Assist citizens in developing successful diverse agriculture ventures
- Continue utilizing Integrated Pest Management (IPM) principles to support environmental stewardship and cost saving practices
- Life skills for youth and adults
- Provide youth development programs to keep youth actively involved and learning; leadership skills and agriculture
- Promote academic success through coordination of services for youth
- Health, safety and well-being of all families
- Food preservation, food safety and drinking water quality
- Resource management

### **III.** Objectives to Address the Cooperative Extension Long Range Plan

### North Carolina's plant, animal and food systems will become more profitable and sustainable.

Educational and training programs for producers of agricultural, horticultural and of forest products and services will enhance their ability to achieve financial and lifestyle goals and to enhance economic development locally, regionally and statewide. North Carolina's producers produce a wide variety of agricultural, food, fiber, and horticultural products that make major contributions to local communities and the states economy. In 2006, the estimated farm gate value of agricultural and horticultural production was \$8.2 billion, placing NC as the 8th largest in the nation. The total economic impact of these agricultural, horticultural and food industries accounts for approximately one-quarter of the states economy. North Carolina farm numbers have declined consistently for decades as a result of economies of scale and global competition in traditional agricultural commodities. Producers of traditional commodities have been forced to expand or leave agriculture. There is continual technological change and the relative profitability of individual farm enterprises changes over time; therefore, farmers must respond by modifying their farming operations. Changes in consumer demand create new opportunities for producers unable or unwilling to compete in commodity production. North Carolina's rapidly growing population creates competition for resources and the need for well informed and well crafted public policy to resolve conflicts and meet societies goals. New enterprises will develop or agriculturally-based enterprises will add value to and diversify farms by producing energy feedstocks, bioenergy, or other valueadded products that will increase rural economic development. Growth in alternative forms of agriculture will include, among others, organic, niche market production, and pasture-raised livestock. Opportunities for diversification of operations and increased income on North Carolina farms will increase as emerging, alternative and entrepreneurial agricultural business opportunities are created in the marketplace.

Value*	Outcome Description
1116	Number of participants increasing/improving knowledge, attitudes, and/or skills as related to: 1. Best management production practices (cultural, nutrient, and genetics) 2. Pest/insect, disease, weed, wildlife management 3. Financial/Farm management tools and practices (business, marketing, govenment policy, human resources) 4. Alternative agriculture, bioenergy, and value-added enterprises

\* Note: Values may include numbers from multi-county efforts.

Value*	Impact Description
	Number of crop (all plant systems) producers adopting best management practices, including those practices related to nutrient management,

850	conservation, production, cultivars, pest management (weeds, diseases, insects), business management, and marketing
3893330	Net income gains realized by the adoption of best management practices, including those practices related to nutrient management, conservation, production, cultivars, pest management (weeds, diseases, insects), business management, and marketing
447	Number of producers reporting increased dollar returns per acre or reduced costs per acre (new required data for federal reporting)
342	Number of producers reporting reduction in fertilizer used per acre (new required data for federal reporting)
20800	Number of acres in conservation tillage or other Best Management Practice (new required data for federal reporting)
120	Number of animal producers adopting extension-recommended best management practices, including those practices related to husbandry, improved planning, marketing, and financial practices
268406	Net income gains by producers adopting extension-recommended best management practices, including those practices related to husbandry, improved planning, marketing, and financial practices

\* Note: Values may include numbers from multi-county efforts.

### Agricultural producers, workers, food handlers and consumers will adopt safer food and agricultural production, handling, and distribution practices that reduce workplace and home injuries/illnesses, enhance food security, and increase the quality and safety of food that North Carolinians prepare and consume.

Training and educational programs for farmers, agricultural workers, food handlers, and consumers will provide research-based programming, materials, information and expertise to compel these individuals to implement practices relating to the overall safety and security for the food supply and farming systems. Components of this include onfarm, packinghouse, and transportation management, retail and food service establishments, and consumer's homes. Therefore targeted audiences include farmers and agricultural workers and their families, food handlers and workers (both amateur and commercial), transporters, processors, business operators, food service and retail staff, supervisors of any food facility, long term care facility staff and individuals who purchase, prepare and serve food in their homes. With an estimated 76 million foodborne illnesses annually, costing an estimated \$1.4 trillion, food safety highlights a specific area of risk to be addressed by Cooperative Extension. The recent produce-related foodborne illness outbreaks have brought public attention to a problem that has been increasing nationally for the last ten years. The issues of foodborne illness and food safety pose immediate risks for farmers affecting the areas of economics, consumer demand, and market access. Because no processing or kill steps are involved with produce that is typically eaten raw, the best measures to limit microorganisms and fresh produce related illness are to prevent microbes from contaminating the product. Practices like Good

Agricultural Practices (GAPs), Good Handling Practices (GHPs), and Hazard Analysis Critical Control Points (HACCP) represent a systematic preventive approach to food safety, protecting agricultural products as they move from farm to retail and restaurants and finally to families. While there is currently no legal requirements for growers to implement GAPs, buyers have responded to the public concern by requiring their produce growers to adhere to current guidelines and possibly even require GAPs certification. The main areas of concern incorporate production, harvesting, packing, and transporting produce in the areas of water quality, manure management, domestic and wildlife management, worker health and hygiene, transportation, traceability, and documentation. For North Carolina growers to be competitive and produce safe product, it is important that they gain knowledge about and implement food safety programs that minimize physical, chemical and biological hazards Food safety risks do not stop at primary production. As risks associated with pathogens can occur at many junctions between primary production and consumption, food safety is a truly farm-to-fork issue. The World Health Organization and Centers for Disease Control and Prevention have defined 5 factors that lead to foodborne illness outbreaks: Inadequate cooking or processing procedures; improper storage and holding temperatures, cross-contamination between potentially contaminated raw materials and ready-to-eat foods (either directly or through poor sanitation); and poor implementation of personal hygiene practices. The preventative steps targeting risk reduction taken at each of the components making up the food supply chain are critical in preventing food-borne illness. Educational programs including ServSAFE, School HACCP workshops, food safety at childcare and senior centers, and targeted farm-to-fork food safety inclusion for all food handlers is necessary for important for advances in knowledge and implementation of preventative programs. Equally important is that families and children have a secure food supply. Hunger in American households has risen by 43 percent over the last five years, according to an analysis of US Department of Agriculture (USDA) data released in the report "Household Food Security in the United States, 2004." The analysis, completed by the Center on Hunger and Poverty at Brandeis University, shows that more than 7 million people have joined the ranks of the hungry since 1999. The USDA report says that 38.2 million Americans live in households that suffer directly from hunger and food insecurity. including nearly 14 million children. That figure is up from 31 million Americans in 1999. Limited-resource, socially disadvantaged and food-insecure individuals, families and communities will be provided with information and opportunities to enhance household food, diet and nutritional security. Agriculture is one of the most hazardous industries in the United States, and consistently ranks as the first, second or third most deadly industry along with mining and construction. Agriculture is unique in that the work and home place are often the same, exposing both workers and family members to hazards. In the United States on average each year, there are 700 deaths and 140,000 injuries to those who work in agriculture, defined as farming, forestry and fishing. Farmers, farmworkers and their families are at high risk for fatal and nonfatal injuries (primarily from tractor roll-overs, machinery entanglements, and animal handling incidents), musculo-skeletal conditions, work-related lung diseases, noise-induced hearing loss, heat stress and heat stroke, pesticide exposure and illness, skin diseases, behavioral health issues, and certain cancers associated with chemical use and prolonged sun exposure. The health and safety of migrant and seasonal farmworkers are complicated by other conditions such as infectious disease, hypertension, and diabetes, as

well as cultural and language barriers. Farmers and farmworkers alike are subject to lack of access to health care. Agricultural injury and illness are costly, with total US annual costs reaching \$4.5 billion and per farm costs equaling \$2,500, or 15% of net income. Median health care coverage for farm families is \$6,000 per year. In North Carolina, 27% of farm families do not have health insurance, while 29% of farmers do not have health insurance. Many others have health care coverage with high annual deductibles and high premiums. Agromedicine is a comprehensive, collaborative approach involving both agricultural and health scientists to develop solutions addressing the health and safety issues of the agricultural community through research, education and outreach. The North Carolina Agromedicine Institute, a partnership of NC State University, NC A&T State University and East Carolina University in collaboration with others, develops and evaluates effective programs to reduce injury and illness in agriculture, forestry and fishing. One such program is called Certified Safe Farm (CSF) and AgriSafe. CSF and AgriSafe were first developed and researched in Iowa. CSF and AgriSafe are being adapted to North Carolina agriculture by the NC Agromedicine Institute and its Cooperative Extension collaborators. Certified Safe Farm combines AgriSafe health services (wellness and occupational health screenings and personal protection equipment selection and fit services) conducted by trained AgriSafe health providers, on-farm safety reviews conducted by trained Extension agents, and community education and outreach to achieve safety and health goals established by participating farmers and their employees and families. Insurance incentives and safety equipment cost-share programs for participating farmers are still being developed. Other ongoing educational programs addressing agricultural health and safety include farm safety days for children, youth, or families, employee hands-on farm safety training, the National Safe Tractor and Machinery Operation Program for youth, and youth ATV operator safety certification programs.

Value*	Outcome Description
29	Number of food service employees receiving ServSafe certification
115	Number of participants trained in safe home food handling, preservation, or preparation practices
28	TOTAL number of food handlers receiving food safety training and education in safe food handling practices (new required data for federal reporting)

\* Note: Values may include numbers from multi-county efforts.

Value	*	Impact Description
	29	Number of participants implementing ServSafe
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\* Note: Values may include numbers from multi-county efforts.

### Youth and adults will address community issues and/or challenges through volunteerism.

Youth and adult volunteers in North Carolina contribute thousands of hours each year to strengthen communities and create strong foundations for the future. As these individuals engage in service, they are gaining new skills, generating new programs to serve their communities, building successful organizations, and fostering an ethic of service. Cooperative Extension is poised to support the development of interpersonal skills, leadership experiences, and content knowledge to ensure that citizens are prepared to engage in meaningful service throughout the lifespan. Current research suggests that youth and adult participation positively impacts civic engagement and contributes to the development of leadership capacities. With its presence in every county, Cooperative Extension is uniquely positioned to contribute to building a stronger ethic of service among youth and adults.

Value*	Outcome Description
515	Number of adult participants acquiring the skills needed to serve as a volunteer
	Number of hours adult volunteer training conducted
21	Number of hours youth volunteer training conducted
82	Number new volunteers recruited

\* Note: Values may include numbers from multi-county efforts.

Value*	Impact Description
15	Increased number of hours contributed by trained youth volunteers
27	Increased number of hours contributed by trained adult volunteers
3	Number of adult volunteers serving in new or expanded roles within Extension

\* Note: Values may include numbers from multi-county efforts.

Community members, organizations and local government will engage in collaborative dialog and decision-making to build economically, socially and environmentally resilient communities. This will be done through inclusive engagement, partnership building, community planning, and/or influencing public policy. This will include building disaster resilient communities through community members increasing knowledge and skills to prepare, mitigate, respond and recover from disasters.

Throughout North Carolina, communities that come together to collaboratively address issues and/or interests are enhancing the community's quality of life and its economic, social and environmental resiliency. The state's growing population and economy is producing significant changes in its communities and in some cases resulting in the emergence of new communities. The perspectives, capacity and skills of all community

members are essential to aligning community decisions and actions with local needs, assets and priorities. NC Cooperative Extension has an important role in engaging and supporting the ongoing work of citizens, organizations, and communities in decision-making, and strategic dialog to influence positive public policy, foster development of partnerships, create empowered communities, be prepared to address the high potential for natural and human-caused disasters.

Value*	Impact Description
224	Number of participants engaged in public dialog and/or decision making in community-wide public policy issues
3	Number of local communities that benefit socially, economically and/or environmentally from effective community development activities
224	Number of participants actively engaged in community organizational development
224	Number of participants collaborating in community-wide planning for economic, social and environmental sustainability

\* Note: Values may include numbers from multi-county efforts.

### **Futures that Work: School to Career Pathways**

We are living in a new economy powered by technology, fueled by information and driven by knowledge. Extension programs provide opportunities for youth and adults to improve their level of education and increase their skills that enable them to be competitive in our global society and workforce.

Value*	Outcome Description	
772	Number of youth (students) increasing knowledge in STEM (Science, Technology, Engineering, Math)	
386	Total number of female participants in STEM program	
772	Number of youth (students) participating in 4-H dropout prevention (student at-risk) programs	
28	Number of high school age youth (students) participating as members of 4-H clubs	
772	Number of youth (students) increasing knowledge of career/employability skills	
212	Number of youth (students) increasing knowledge of entrepreneurship	
* Note: V	* Note: Values may include numbers from multi-county efforts.	

### Value\* Impact Description

772	Number of youth (students) gaining knowledge in STEM (Science, Technology, Engineering, Math)
772	Number of youth (students) gaining career / employability skills
212	Number of youth (students) gaining entrepreneurship skills
* NT	

\* Note: Values may include numbers from multi-county efforts.

# Youth and adult program participants will make healthy food choices, achieve the recommended amount of physical activity and reduce risk factors for chronic diseases.

Many North Carolinians are affected by chronic disease and conditions that compromise their quality of life and well-being. Heart disease, stroke and cancer continue to be leading causes of death in our state. In addition, obesity and obesity related chronic diseases such as diabetes continue to rise at alarming rates. Healthy eating and physical activity are critical to achieve optimal health. Many North Carolinians have diets that are too high in calories and too low in fruits, vegetables and whole grains. Portion sizes, foods eaten away-from-home and consumption of sugar-sweetened beverages continue to rise. In addition, most North Carolinians do not engage in regular physical activity. The prevalence of overweight and obesity has nearly doubled in the past 10 years. If the trend of overweight is not slowed, it will eliminate the progress we have made in reducing the burden of weigh-related chronic disease. One in every three US children born after 2000 will become diabetic unless many more people start eating less and exercising more. The cost of obesity in North Carolina in health care costs alone is over 2 billion dollars. There are many proposed reasons for the obesity epidemic, however unhealthy eating and physical inactivity are widely recognizes as primary contributors to the problem. Those who make healthy food choices and are physically active are more likely to achieve and maintain a healthy weight as well reduce chronic diseases. Ultimately, this will lead to reduction in health care costs, increased longevity, greater productivity and improved quality of life.

Value*	Impact Description
3	Number of adults increasing their fruit and vegetables consumption
292	Number of youth increasing their fruit and vegetable consumption
237	Number of participants increasing their physical activity

\* Note: Values may include numbers from multi-county efforts.

Type of Contact	Number
Face-to-face*	94,105
Non face-to-face**	23,962
Total by Extension staff in 2016	118,067

\* Face-to-face contacts include contacts that Extension personnel make directly with individuals through one-on-one visits, meetings, and other activities where staff members work directly with individuals.

\*\* Non face-to-face contacts include contacts that Extension personnel make indirectly with individuals by telephone, email, newsletters, news articles, radio, television, and other means.

### V. Designated Grants Received by Extension

Type of Grant	Amount
Contracts/Grants	\$334,900.00
Gifts/Donations	\$36,500.00
United Way/Foundations	\$0.00
User Fees	\$14,560.00
Total	\$385,960.00

### **VI. Volunteer Involvement in Extension Programs**

		Volunteer	Known client contacts by volunteers	Dollar Value at \$23.56
4-H:	594	24,257	4,553	\$ 571,495.00

Advisory Leadership System:	167	155	625	\$ 3,652.00
Extension Community Association:	31	10,067	226	\$ 237,179.00
Extension Master Gardener:	143	289	1,011	\$ 6,809.00
Other:	14	28	0	\$ 660.00
Total:	949	34796	6415	\$ 819,794.00

\* The number of volunteers reflects the overall number of volunteers for multiple events.

### VII. Membership of Advisory Leadership System

### Ashe County Extension Advisory Council

Judy Bare Kim Barnes Sue Bradshaw Trathen Cheek Cline Church Debbie Fishel Doug Goss Karen Powell Brantley Price Sam Shumate Tracy Taylor Joe Ward Phyllis Yates Sam Yearick

#### Ashe County Extension Family & Consumer Sciences Advisory Council Members

Sue Bradshaw Tim Church Tom Efford Diane Killen Sandy Long Fawn Roark Mary Gordon Tugman Linda Worsham

### Ashe County 4-H Advisory Council

Tracy Vannoy Jamie Little Scott Turnmyre Joallen Lowder Bill Clark Joseph Shimel Veronica Olvera Charlotte Council Ethan Council Doug Goss Deanna Stoker Julia Houck

### Ashe County 4-H Migrant Education Advisory Team

Michelle Pelayo Cynthia Coldiron Jennifer Miller Nicolasa Balcazar Sandra Fuentes Azucena Hernandez Veronica Olvera Leonor Gonzalez

### Ashe County 4-H Middle School Advisory Board

Elaine Cox Connie Register Heather Windish Bobby Dillard Dekoda Dillard Tonya Sheets Carter Calhoun Jennifer Miller Erica Roten

### **Farmland Preservation Committee**

Brian Ashley Trathen Cheek Andrew Cox Ryan Huffman Joel McNeill Cecil Miller Martin McVey Vickie Young Carolyn Shepherd

### 4-H Summer Parks Advisory Team

Erica Roten Jennifer Miller Michelle Pelayo Scott Turnmyre David Blackburn

### 4-H Blue Ridge LEADS Advisory Team

Callie Grubb Tonya Denny Haley Eller Erica Roten

### 4-H Mountain View LEADS Advisory Team Members

David Blackburn Lori Hensley Carol Kirchdorfer Erica Roten

### 4-H Westwood LEADS Advisory Team Members

Jennifer Robinson Sonya Vannoy Lola Cox Erica Roten

### **Extension Agricultural Livestock Advisory Committee**

Andrew Cox Kim Furches Kerry Krider Trathen Cheek Gail Sheets

### **Extension Christmas Tree Advisory Committee**

Mitch Poe Joe Freeman Tim Miller Ben Cheek Andy Cheek Andrew Sexton Carrie McClain

### **Extension Consumer Horticulture Advisory Committee**

Laurie Helgren Dori Gold Nancy Jordan Paul Caudill Penny Moore Jody Sloan Rosemary Jayne Eloise Shepard Dianne Drum

### 4-H LEADS Afterschool Administrative Committee

Phyllis Yates Jamie Little Callie Yates Tonya Denny Elaine Cox Heather Windish David Blackburn Lori Hensley Jennifer Robinson Sonya Vannoy Carolyn Shepherd Erica Roten Jennifer Miller

### **4-H LEADS Afterschool Transportation Committee**

Shea Coldiron Elaine Cox Jerri Baker Dustin Farmer Sandra Peterson John Ring Matthew Key Susan Carter Denise Austin Danny Miller

### **Expanded Food and Nutrition Education Program Advisory Committee**

Maggi Birdsell Jane Gardner Eloisa Hernandez-Rutz Jamie Little Jennifer Miller Roger Newton Vickie Roark Lynn Robinson Carolyn Shepherd Martha Turner Paula Williams Linda Worsham Melissa Fowler

### VIII. Staff Membership

### **Carolyn Shepherd**

Title: County Extension Director Phone: (336) 846-5850 Email: carolyn shepherd@ncsu.edu

### **Travis Birdsell**

Title: Extension Agent, Agriculture Phone: (336) 846-5850 Email: travis\_birdsell@ncsu.edu Brief Job Description: Responsible for Christmas tree, home horticulture and local foods programs

### **Richard Boylan**

Title: Area Specialized Agent, Agriculture Phone: (828) 264-3061 Email: richard boylan@ncsu.edu

### **Brent Buchanan**

Title: Area Specialized Agent, Agriculture - Dairy Phone: (315) 212-1277 Email: brent\_buchanan@ncsu.edu Brief Job Description: Dairy Extension Programming in Western North Carolina Counties of Haywood, Madison, Buncombe, Transylvania, Henderson, Yancey, McDowell, Polk, Rutherford, Mitchell, Avery, Burke, Cleveland, Watauga, Caldwell, Catawba, Lincoln, Gaston, Ashe, Wilkes, Alexander, Iredell, Alleghany, Surry, Yadkin, and Davie.

### **Daniel Campeau**

Title: Area Specialized Agent, Agriculture - Poultry Phone: (919) 542-8202 Email: dan\_campeau@ncsu.edu Brief Job Description: Work mainly with Commercial Poultry industry. I also work with small scale poultry production. Service area is now the North Central District from Ashe to Vance county down to Moore and Lee counties.

### **Rhonda Church**

Title: Nutrition Program Assistant - EFNEP Phone: (336) 846-5850 Email: rhonda\_church@ncsu.edu Brief Job Description: EFNEP Nutrition Education Program with limited resource audiences.

### **Brad Edwards**

Title: Program Assistant - IPM Phone: (336) 846-5850 Email: brad edwards@ncsu.edu

#### Jessica Hodgson-Ham

Title: County Extension Support Specialist Phone: (336) 846-5850 Email: jessica\_hodgson-ham@ncsu.edu

### **Craig Mauney**

Title: Extension Area Specialized Agent, Agriculture - Commercial Vegetables & Fruits Phone: (828) 684-3562 Email: craig\_mauney@ncsu.edu Brief Job Description: Provides educational opportunities, training and technical support to commercial fruit and vegetable growers, agents, and industry in Western NC.

### **Jennifer Miller**

Title: Extension Agent, 4-H Youth Development Phone: (336) 846-5850 Email: jennifer\_miller@ncsu.edu

### Vickie Moore

Title: County Extension Administrative Assistant Phone: (336) 846-5850 Email: vickie\_moore@ncsu.edu

### **Micah Orfield**

Title: Extension Agent, Agriculture - Livestock Phone: (336) 846-5850 Email: micah\_orfield@ncsu.edu

### **Amanda Taylor**

Title: Area Specialized Agent, Nursery and Greenhouse, Western Region Phone: (828) 475-2915 Email: amanda\_jo\_taylor@ncsu.edu Brief Job Description: Provides programming to commercial nursery and greenhouse producers in Alexander, Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Catawba, Cherokee, Clay, Cleveland, Gaston, Graham, Haywood, Henderson, Jackson, Lincoln, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, Wilkes, and Yancey Counties.

### **IX.** Contact Information

Ashe County Center 134 Government Cir Suite 202 Jefferson, NC 28640

Phone: (336) 846-5850 Fax: (336) 846-5882 URL: http://ashe.ces.ncsu.edu

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### 2017 Ashe County Plan of Work

Approved: January 19, 2017

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Ashe County is a mountainous county in the northwestern corner of North Carolina with a population of 27,281, located in the Blue Ridge Mountains. The county experiences four distinct and beautiful seasons. The three townships include Jefferson, the county seat, Lansing and West Jefferson. The charm of small town living draws thousands of tourists each year resulting in \$51.59 million dollars in 2015. Ashe County is the home of thriving businesses including GE Aviation and American Emergency Vehicles, the number one manufacturer of domestic ambulances in the United States. Ashe County Airport has the highest elevation of any airport in North Carolina. The county is the leading producer of Christmas trees and greenery in the United States.

White persons, not of Hispanic/Latino origin account for 92.4% of the population. The largest growing minority group is of Hispanic/Latino origin and comprises 5.3% of the population.

Agriculture is a large component of the local economy, valued at \$104.5 million, led by Christmas trees and greenery which were an \$85 million industry in 2016. According to the United States of Agriculture (USDA), Ashe County has 1,140 farms totaling 112,462 acres. Farmland, including 22,603 acres in the Voluntary Farmland Preservation Program, adds to the beauty of the county while providing goods and services for the local economy. Christmas trees and greenery support 800 year round jobs and an additional 2,000 jobs during harvest season. The County ranks 13th in cattle production in the state with over \$12.7 million realized last year from cattle production and livestock sales; other agriculture products include hay (11,000 acres with over 25,000 tons in 2016); 925 acres of pumpkins and squash (cucurbits) were grown with over \$5 million realized; fruits, vegetables, berries, milk, wool, honey, sheep and goats providing diverse agriculture commodities. The local food movement is strong with producers unable to meet demand. Many farmers work off-farm for the majority of their income, with farm income under \$60,000. Interest in gardening is high, as is home food preservation.

Adult and childhood obesity rates remain high in the county and are considered a major health issue. The county is a graying community with over 30% of the County's population over the age of 60. By 2020 the County is projected to rise to fifth in the state of persons 65 years of age or older.

Cooperative Extension, Ashe County Center used county and program area advisory leadership to identify programming needs through a county-wide needs assessment. Programming areas that were identified included:

• Continue to support current farming operations through education of best practices

- Assist citizens in developing successful diverse agriculture ventures
- Continue utilizing Integrated Pest Management (IPM) principles to support environmental stewardship and cost saving practices
- Life skills for youth and adults
- Provide youth development programs to keep youth actively involved and learning; leadership skills and agriculture
- Promote academic success through coordination of services for youth
- Health, safety and well-being of all families
- Food preservation, food safety and drinking water quality
- Resource management

### **II.** Objectives to Address the Cooperative Extension Long Range Plan

### North Carolina's plant production systems will become more profitable and sustainable.

North Carolina's agricultural crops industry makes major contributions to local communities and the state's economy. In 2014, the estimated farm gate value of crops was \$4.72 billion, placing NC as the 17th largest in the nation. North Carolina is one of the most diversified agriculture states in the nation. The state's 50,200 farmers grow over 80 different commodities, utilizing 8.4 million of the state's 31 million acres to furnish consumers a dependable and affordable supply of food and fiber. Tobacco remains one of the state's most predominant farm commodities. North Carolina produces more tobacco and sweet potatoes than any other state and ranks second in Christmas tree cash receipts. The state also produces a significant amount of cucumbers for pickles, lima beans, turnip greens, collard greens, mustard greens, strawberries, bell peppers, blueberries, chili peppers, fresh market cucumbers, snap beans, cabbage, eggplant, watermelons, pecans, peaches, squash, apples, sweet corn, tomatoes, and grapes. There is continual technological change and the relative profitability of individual farm enterprises changes over time; therefore, farmers must respond by modifying their farming operations. Changes in consumer demand create new opportunities for producers. Growth in alternative forms of agriculture will include, among others, organic and niche market production. Educational and training programs for producers of plant agricultural products and services will enhance their ability to achieve financial and lifestyle goals and to enhance economic development locally, regionally and statewide.

### North Carolina's animal production systems will become more profitable and sustainable.

North Carolina's livestock industry makes major contributions to local communities and the state's economy. In 2014, the estimated farm gate value of livestock, dairy, and poultry was \$8.85 billion, placing NC as the 7th largest in the nation. Hogs & pigs have historically been an important part of North Carolina agriculture. The industry has changed dramatically since the 1980s from the small farm raising a few hogs to large confinement type operations. North Carolina's number of cattle & calves on farms has remained relatively stable throughout time. Milk cow inventory and milk production have continued to decline in the state. Unlike other commodities, broiler production in North Carolina is increasing throughout the state. There is continual technological change and the relative profitability of individual farm enterprises changes over time; therefore, farmers must respond by modifying their farming operations. Changes in consumer demand create new opportunities for producers. Growth in alternative forms of agriculture will include, among others, organic, niche market production, and pastureraised livestock. Educational and training programs for producers of animal agricultural products and services will enhance their ability to achieve financial and lifestyle goals and to enhance economic development locally, regionally and statewide.

### Producers will increase sales of food locally to more agriculturally aware consumers through market development, producer and consumer education, and new farmer

### and infrastructure support.

Farmers will increase their capacity to supply product for local food sales through market planning efforts, producer and consumer education, beginning farmer training programs and local market infrastructure development. The fastest growing area of consumer demand in agriculture continues to be organic. Farmers' markets continue to expand as do multiple efforts in local sustainable agriculture. Nationally, "Buy Local, Buy Fresh" movements have emerged in the face of concerns about the risks involved in long distance transportation of industrialized food production. Increasingly, public officials and business leaders see promotion of local farm products as good public policy and local economic development. Additionally, individuals will learn to supplement their current diet by growing their own fruits and vegetables as individuals or as community groups.

### Agricultural producers, workers, food handlers and consumers will adopt safer food and agricultural production, handling, and distribution practices that reduce workplace and home injuries/illnesses, enhance food security, and increase the quality and safety of food that North Carolinians prepare and consume.

Training and educational programs for farmers, agricultural workers, food handlers, and consumers will provide research-based programming, materials, information and expertise to compel these individuals to implement practices relating to the overall safety and security for the food supply and farming systems. Components of this include onfarm, packinghouse, and transportation management, retail and food service establishments, and consumer's homes. Therefore targeted audiences include farmers and agricultural workers and their families, food handlers and workers (both amateur and commercial), transporters, processors, business operators, food service and retail staff, supervisors of any food facility, long term care facility staff and individuals who purchase, prepare and serve food in their homes. With an estimated 76 million foodborne illnesses annually, costing an estimated \$1.4 trillion, food safety highlights a specific area of risk to be addressed by Cooperative Extension. The recent produce-related foodborne illness outbreaks have brought public attention to a problem that has been increasing nationally for the last ten years. The issues of foodborne illness and food safety pose immediate risks for farmers affecting the areas of economics, consumer demand, and market access. Because no processing or kill steps are involved with produce that is typically eaten raw, the best measures to limit microorganisms and fresh produce related illness are to prevent microbes from contaminating the product. Practices like Good Agricultural Practices (GAPs), Good Handling Practices (GHPs), and Hazard Analysis Critical Control Points (HACCP) represent a systematic preventive approach to food safety, protecting agricultural products as they move from farm to retail and restaurants and finally to families. While there is currently no legal requirements for growers to implement GAPs, buyers have responded to the public concern by requiring their produce growers to adhere to current guidelines and possibly even require GAPs certification. The main areas of concern incorporate production, harvesting, packing, and transporting produce in the areas of water quality, manure management, domestic and wildlife management, worker health and hygiene, transportation, traceability, and documentation. For North Carolina growers to be competitive and produce safe product, it is important that they gain knowledge about and implement food safety programs that minimize physical, chemical and biological hazards Food safety risks do not stop at primary production. As risks associated with pathogens can occur at many junctions between

primary production and consumption, food safety is a truly farm-to-fork issue. The World Health Organization and Centers for Disease Control and Prevention have defined 5 factors that lead to foodborne illness outbreaks: Inadequate cooking or processing procedures; improper storage and holding temperatures, cross-contamination between potentially contaminated raw materials and ready-to-eat foods (either directly or through poor sanitation); and poor implementation of personal hygiene practices. The preventative steps targeting risk reduction taken at each of the components making up the food supply chain are critical in preventing food-borne illness. Educational programs including ServSAFE, School HACCP workshops, food safety at childcare and senior centers, and targeted farm-to-fork food safety inclusion for all food handlers is necessary for important for advances in knowledge and implementation of preventative programs. Equally important is that families and children have a secure food supply. Hunger in American households has risen by 43 percent over the last five years, according to an analysis of US Department of Agriculture (USDA) data released in the report "Household Food Security in the United States, 2004." The analysis, completed by the Center on Hunger and Poverty at Brandeis University, shows that more than 7 million people have joined the ranks of the hungry since 1999. The USDA report says that 38.2 million Americans live in households that suffer directly from hunger and food insecurity, including nearly 14 million children. That figure is up from 31 million Americans in 1999. Limited-resource, socially disadvantaged and food-insecure individuals, families and communities will be provided with information and opportunities to enhance household food, diet and nutritional security. Agriculture is one of the most hazardous industries in the United States, and consistently ranks as the first, second or third most deadly industry along with mining and construction. Agriculture is unique in that the work and home place are often the same, exposing both workers and family members to hazards. In the United States on average each year, there are 700 deaths and 140,000 injuries to those who work in agriculture, defined as farming, forestry and fishing. Farmers, farmworkers and their families are at high risk for fatal and nonfatal injuries (primarily from tractor roll-overs, machinery entanglements, and animal handling incidents), musculo-skeletal conditions, work-related lung diseases, noise-induced hearing loss, heat stress and heat stroke, pesticide exposure and illness, skin diseases, behavioral health issues, and certain cancers associated with chemical use and prolonged sun exposure. The health and safety of migrant and seasonal farmworkers are complicated by other conditions such as infectious disease, hypertension, and diabetes, as well as cultural and language barriers. Farmers and farmworkers alike are subject to lack of access to health care. Agricultural injury and illness are costly, with total US annual costs reaching \$4.5 billion and per farm costs equaling \$2,500, or 15% of net income. Median health care coverage for farm families is \$6,000 per year. In North Carolina, 27% of farm families do not have health insurance, while 29% of farmers do not have health insurance. Many others have health care coverage with high annual deductibles and high premiums. Agromedicine is a comprehensive, collaborative approach involving both agricultural and health scientists to develop solutions addressing the health and safety issues of the agricultural community through research, education and outreach. The North Carolina Agromedicine Institute, a partnership of NC State University, NC A&T State University and East Carolina University in collaboration with others, develops and evaluates effective programs to reduce injury and illness in agriculture, forestry and fishing. One such program is called Certified Safe Farm (CSF) and AgriSafe. CSF and

AgriSafe were first developed and researched in Iowa. CSF and AgriSafe are being adapted to North Carolina agriculture by the NC Agromedicine Institute and its Cooperative Extension collaborators. Certified Safe Farm combines AgriSafe health services (wellness and occupational health screenings and personal protection equipment selection and fit services) conducted by trained AgriSafe health providers, on-farm safety reviews conducted by trained Extension agents, and community education and outreach to achieve safety and health goals established by participating farmers and their employees and families. Insurance incentives and safety equipment cost-share programs for participating farmers are still being developed. Other ongoing educational programs addressing agricultural health and safety include farm safety days for children, youth, or families, employee hands-on farm safety training, the National Safe Tractor and Machinery Operation Program for youth, and youth ATV operator safety certification programs.

### Individuals and groups will acquire leadership and decision making capacities needed to guide and actively participate in local and state organizations.

Leadership is important to every level of a community sharing in the creation of wealth and well-being. Youth and adult leaders must be capable of motivating groups to achieve common goals that impact North Carolina families and communities. They will need the confidence and skill to guide and support North Carolina community and state organizations. Citizens participating in the 2007 NC Tomorrow survey denoted the importance of leadership by clearly requesting leadership training (54%), social advising, community advising and technical assistance (45%) from their university system.

### Youth and adults will address community issues and/or challenges through volunteerism.

Youth and adult volunteers in North Carolina contribute thousands of hours each year to strengthen communities and create strong foundations for the future. As these individuals engage in service, they are gaining new skills, generating new programs to serve their communities, building successful organizations, and fostering an ethic of service. Cooperative Extension is poised to support the development of interpersonal skills, leadership experiences, and content knowledge to ensure that citizens are prepared to engage in meaningful service throughout the lifespan. Current research suggests that youth and adult participation positively impacts civic engagement and contributes to the development of leadership capacities. With its presence in every county, Cooperative Extension is uniquely positioned to contribute to building a stronger ethic of service among youth and adults.

# Community members, organizations and local government will engage in collaborative dialog and decision-making to build economically, socially and environmentally resilient communities. This will be done through inclusive engagement, partnership building, and/or community planning.

Throughout North Carolina, communities that come together to collaboratively address issues and/or interests are enhancing the community's quality of life and its economic, social and environmental resiliency. The state's growing population and economy is producing significant changes in its communities and in some cases resulting in the emergence of new communities. The perspectives, capacity and skills of all community

members are essential to aligning community decisions and actions with local needs, assets and priorities. NC Cooperative Extension has an important role in engaging and supporting the ongoing work of citizens, organizations, and communities in decision-making, and strategic dialog to influence positive public policy, foster development of partnerships, create empowered communities, be prepared to address the high potential for natural and human-caused disasters.

### **Futures that Work: School to Career Pathways**

We are living in a new economy powered by technology, fueled by information and driven by knowledge. Extension programs provide opportunities for youth and adults to improve their level of education and increase their skills that enable them to be competitive in our global society and workforce.

## Youth and adult program participants will make healthy food choices, achieve the recommended amount of physical activity and reduce risk factors for chronic diseases.

Many North Carolinians are affected by chronic disease and conditions that compromise their quality of life and well-being. Heart disease, stroke and cancer continue to be leading causes of death in our state. In addition, obesity and obesity related chronic diseases such as diabetes continue to rise at alarming rates. Healthy eating and physical activity are critical to achieve optimal health. Many North Carolinians have diets that are too high in calories and too low in fruits, vegetables and whole grains. Portion sizes, foods eaten away-from-home and consumption of sugar-sweetened beverages continue to rise. In addition, most North Carolinians do not engage in regular physical activity. The prevalence of overweight and obesity has nearly doubled in the past 10 years. If the trend of overweight is not slowed, it will eliminate the progress we have made in reducing the burden of weigh-related chronic disease. One in every three US children born after 2000 will become diabetic unless many more people start eating less and exercising more. The cost of obesity in North Carolina in health care costs alone is over 2 billion dollars. There are many proposed reasons for the obesity epidemic, however unhealthy eating and physical inactivity are widely recognizes as primary contributors to the problem. Those who make healthy food choices and are physically active are more likely to achieve and maintain a healthy weight as well reduce chronic diseases. Ultimately, this will lead to reduction in health care costs, increased longevity, greater productivity and improved quality of life.

### **III. Relationship to County Government Objectives**

Extension's Plan of Work is supported by county government. County management and elected officials were involved in the environmental scanning process used to create the plan. Identified needs from the environmental scan align with elected officials' priorities of supporting the local economy, working to improve quality of life, supporting steady employment opportunities and planning for future needs of the county. County government is aware of and supports the mission and core programs of Extension.

Cooperative Extension is an integral part of the county's Emergency Operation Plan.

There is an established protocol for working with county government during natural disaster events through the Emergency Management Department. Cooperative Extension will be responsible for developing and implementing educational measures to relay to the public during emergency situations. The department will also assist agricultural producers with issues that have the potential to impact the community.

### **IV. Diversity Plan**

Cooperative Extension, Ashe County Center will make all reasonable efforts to comply with our diversity statements and to promote inclusiveness for everyone. Extension programming is available to all citizens. Steps that have been taken to address diversity include:

- \* Strive to maintain Advisory Leadership System that represents the county population
- \* Collaborate with other agencies to expand our customer base

\* Garner resources to offset costs of educational programs to eliminate expense as a barrier for limited resource audience

- \* Participate in community events to broaden our base of minority clients
- \* Utilize mass media
- \* Brochures and flyers, providing bilingual information when possible
- \* Diverse staff able to work with all audiences

Additional efforts have been made to reach the Hispanic audience, the largest growing minority population in Ashe County. A Migrant Education Coordinator has been hired through the Board of Education and housed in the Ashe Center to provide bilingual services to the often under served, limited resource audience.

### V. Primary Delivery and Evaluation Methods

Delivering timely, relevant educational programs that meet critical local needs is the cornerstone of Extension's mission. Extension educational programs are designed to equip the citizens of Ashe County with the knowledge, skills and tools to improve their economic prosperity, environmental stewardship and quality of life. An Extension program delivery system is a planned and organized eclectic mix of educational methods used during an educational program. Extension educational methods are the specific ways by which research-based information is shared with targeted learners. Extension educators in our county employ a wide variety of hands-on, experiential educational methods, such as interactive workshops and classes, demonstrations, field days and tours, that allow learners to fully engage in the learning process, test new knowledge and/or practice new skills during the educational session. Equally important, this plan will also include educational methods such as seminars, client visits, fact sheets, and newsletters that serve to support and reinforce learning as well as provide motivation for continued learning. Armed with the most current literature on effective teaching and learning, Extension educators also skillfully select educational methods based on the learning style

preferences and special needs of the targeted learners. These client-focused methods afford learners the opportunity to gain the necessary knowledge and skills to change their lives in meaningful ways. Another key feature of Extension program delivery that is evident in this plan is our commitment to being customer driven and customer focused. As such, in addition to the County Extension Center, Extension educational programs are delivered online, in community centers, on farms, and other locations in order for our programs to be available and accessible to, and fully utilized by the citizens of Ashe County.

In Extension, success is defined as the extent to which our educational programs have made a difference in the lives of the citizens of Ashe County. Evaluation methods are the way we make those observations including any changes that occurred as a result of our educational programs, and subsequently the significance of those changes. As an educational organization, the changes we seek focus on key outcomes such as the knowledge and skills participants gain from our programs. More specifically, in this plan, we are using quantitative research methods such as retrospective testing, pre and post tests and/or surveys to measure change in knowledge gained, the application of that knowledge, number of new skills developed, and types of new skills developed. Extension, as a results-oriented organization, is committed to also assessing the social, economic and/or environmental impact that our programs have on the individuals who participate, their families and communities and ultimately the county as a whole (i.e. true significance of the changes stemming from our programs). We plan to measure these impacts in both the long and short-term. In this annual plan (short-term), we have outlined financial impact and cost benefit analysis as our primary evaluation methods. Another value held in Extension is actively listening to and dialoguing with targeted learners. Therefore, this plan also includes qualitative evaluation methods such as testimonials from program participants, and interviews and focus groups with participants.

### VI. Membership of Advisory Leadership System

### Ashe County Extension Advisory Council

Judy Bare Kim Barnes **Rusty Barr** Sue Bradshaw Trathen Cheek Cline Church Cynthia Coldiron **Debbie** Fishel **Doug Goss** James Howell James Miller Candi Miller Karen Powell Sam Shumate Tracy Taylor Janet Ward Joe Ward **Phyllis Yates** Sam Yearick Vickie Young

#### Ashe County Extension Family & Consumer Sciences Advisory Council Members

Sue Bradshaw Tim Church Tom Efford Diane Killen Sandy Long Fawn Roark Mary Gordon Tugman Linda Worsham

### Ashe County 4-H Advisory Council

Tracy Vannoy Jamie Little Scott Turnmyre Joallen Lowder Bill Clark Joseph Shimel Veronica Olvera Charlotte Council Ethan Council Doug Goss Deanna Stoker Julia Houck

### Ashe County 4-H Migrant Education Advisory Team

Keila Fuentes Veronica Olvera Wendy Duron Sandra Fuentes Gloria Parra Michelle Pelayo

### Ashe County 4-H Middle School Advisory Board

Elaine Cox Connie Register Heather Windish Tonya Sheets Carter Calhoun Jennifer Miller Erica Roten

### **Farmland Preservation Committee**

Trathen Cheek Ryan Huffman Joel McNeill Martin McVey Cecil Miller Vickie Young Carolyn Shepherd

### 4-H Summer Parks Advisory Team

Erica Roten Jennifer Miller Michelle Pelayo

### 4-H Blue Ridge LEADS Advisory Team

Callie Grubb Tonya Denny Amber Lane Erica Roten

### 4-H Mountain View LEADS Advisory Team Members

David Blackburn Lori Hensley Meghan Blevins Erica Roten

### 4-H Westwood LEADS Advisory Team Members

Jennifer Robinson Mandy Keziah Lola Cox Erica Roten

### **Extension Agricultural Livestock Advisory Committee**

Andrew Cox Kim Furches Kerry Krider Trathen Cheek Gail Sheets Micah Orfield

### **Extension Christmas Tree Advisory Committee**

Mitch Poe Joe Freeman Tim Miller Ben Cheek Andy Cheek Andrew Sexton Carrie McClain

### **Extension Consumer Horticulture Advisory Committee**

Laurie Helgren Dori Gold Nancy Jordan Paul Caudill Penny Moore Jody Sloan Rosemary Jayne Eloise Shepard Dianne Drum

### 4-H LEADS Afterschool Administrative Committee

Phyllis Yates Jamie Little Callie Yates Tonya Denny Elaine Cox Heather Windish David Blackburn Lori Hensley Jennifer Robinson Mandy Keziah Carolyn Shepherd Erica Roten Jennifer Miller

### **4-H LEADS Afterschool Transportation Committee**

Shea Coldiron Elaine Cox Jerri Baker Dustin Farmer Lyndsi Williams John Ring Matthew Key Susan Carter Denise Austin Danny Miller

### **Expanded Food and Nutrition Education Program Advisory Committee**

Maggi Birdsell Jane Gardner Eloisa Hernandez-Ruiz Jamie Little Jennifer Miller Roger Newton Vickie Roark Lynn Robinson Carolyn Shepherd Martha Turner Paula Williams Linda Worsham Melissa Fowler

### **VII. Staff Membership**

### **Carolyn Shepherd**

Title: County Extension Director Phone: (336) 846-5850 Email: carolyn shepherd@ncsu.edu

### **Travis Birdsell**

Title: Extension Agent, Agriculture Phone: (336) 846-5850 Email: travis\_birdsell@ncsu.edu Brief Job Description: Responsible for Christmas tree, home horticulture and local foods programs

### **Richard Boylan**

Title: Area Specialized Agent, Agriculture Phone: (828) 264-3061 Email: richard boylan@ncsu.edu

#### **Brent Buchanan**

Title: Area Specialized Agent, Agriculture - Dairy Phone: (315) 212-1277 Email: brent\_buchanan@ncsu.edu Brief Job Description: Dairy Extension Programming in Western North Carolina Counties of Haywood, Madison, Buncombe, Transylvania, Henderson, Yancey, McDowell, Polk, Rutherford, Mitchell, Avery, Burke, Cleveland, Watauga, Caldwell, Catawba, Lincoln, Gaston, Ashe, Wilkes, Alexander, Iredell, Alleghany, Surry, Yadkin, and Davie.

### **Daniel Campeau**

Title: Area Specialized Agent, Agriculture - Poultry Phone: (919) 542-8202 Email: dan\_campeau@ncsu.edu Brief Job Description: Work mainly with Commercial Poultry industry. I also work with small scale poultry production. Service area is now the North Central District from Ashe to Vance county down to Moore and Lee counties.

### **Rhonda Church**

Title: Nutrition Program Assistant - EFNEP Phone: (336) 846-5850 Email: rhonda\_church@ncsu.edu Brief Job Description: EFNEP Nutrition Education Program with limited resource audiences.

### **Brad Edwards**

Title: Program Assistant - IPM Phone: (336) 846-5850 Email: brad edwards@ncsu.edu

### Jessica Hodgson-Ham

Title: County Extension Support Specialist Phone: (336) 846-5850 Email: jessica\_hodgson-ham@ncsu.edu

### **Craig Mauney**

Title: Extension Area Specialized Agent, Agriculture - Commercial Vegetables & Fruits Phone: (828) 684-3562 Email: craig\_mauney@ncsu.edu Brief Job Description: Provides educational opportunities, training and technical support to commercial fruit and vegetable growers, agents, and industry in Western NC.

### **Jennifer Miller**

Title: Extension Agent, 4-H Youth Development Phone: (336) 846-5850 Email: jennifer\_miller@ncsu.edu

### Vickie Moore

Title: County Extension Administrative Assistant Phone: (336) 846-5850 Email: vickie\_moore@ncsu.edu

### **Micah Orfield**

Title: Extension Agent, Agriculture - Livestock Phone: (336) 846-5850 Email: micah\_orfield@ncsu.edu

### **Amanda Taylor**

Title: Area Specialized Agent, Nursery and Greenhouse, Western Region Phone: (828) 475-2915 Email: amanda\_jo\_taylor@ncsu.edu Brief Job Description: Provides programming to commercial nursery and greenhouse producers in Alexander, Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Catawba, Cherokee, Clay, Cleveland, Gaston, Graham, Haywood, Henderson, Jackson, Lincoln, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, Wilkes, and Yancey Counties.

### **VIII. Contact Information**

Ashe County Center 134 Government Cir Suite 202 Jefferson, NC 28640

Phone: (336) 846-5850 Fax: (336) 846-5882 URL: http://ashe.ces.ncsu.edu