



**N.C. Cooperative Extension, Surry Center
(submitted by Joanna Radford, County Extension Director)**

Responsibilities

Federal, state, and county governments each provide financial support and program guidance for North Carolina Cooperative Extension, which has centers in each county and with the Eastern Band of Cherokee. These centers are grouped into districts, each guided by a director. Specialists and administrators at NC State University and N.C. A&T State University also support county efforts by serving as liaisons to the United States Department of Agriculture, which is the parent agency for N.C. Cooperative Extension programs nationwide.

Extension agents in each of North Carolina's 101 local centers design and carry out educational programs aimed at serving local needs in agriculture, food, and 4-H youth development. The team in Surry County consists of:

Field Crop Agriculture Agent (shared with Yadkin County)
Livestock Agriculture Agent
Horticulture Agriculture Agent and County Extension Director
4-H and Youth Development Agent
Family and Consumer Science Agent (shared with Alleghany County)
Expanded Foods and Nutrition Education Program (EFNEP) Youth Educator
Expanded Foods and Nutrition Education Program (EFNEP) Adult Educator
Administrative Assistant
Part-time Receptionist/Secretary

Each day, Extension helps to strengthen our Surry County families and communities. Our mission and our work are dedicated to improving the quality of people's lives. We rely on research-based information from North Carolina State University and other educational institutions to develop educational programs based on the issues and the needs of our communities and citizens. These educational programs and technical assistance provide solutions and empower our clients to make better-informed decisions. Our leadership in experiential education equips our clients in Surry County to effectively transfer knowledge and skills into practical application. We develop and foster partnerships with agriculture, business, industry, education, families, and government to create a unique culture of collaboration that increases productivity and fuels economic development.

Accomplishments and Statistical Data

4-H and Youth Development

- Four active 4-H clubs with 41 youth
 - Beulah 4-H
 - Pilot Mountain 4-H
 - 4-Hooves Equine
 - County Council
- 221 youth contacts made through day programs, summer enrichment programs, and 4-H clubs.
- 292 Surry County students participated in 4-H School Enrichment programs.
 - 2nd graders at Copeland, Flat Rock, and Dobson Elementary learned life cycles of butterflies and watched metamorphosis in their classrooms through the 4-H Winged Wonders curriculum.
 - 2nd graders at Franklin and Shoals Elementary discovered how chicks develop by incubating eggs, candling them to watch their development, and being able to watch the hatching process in their classroom.
 - 3rd graders at Flat Rock and Westfield Elementary learned about different soil types and how soils affect plant growth. They were able to do several seed-planting trials, learning how factors such as sunlight, temperature, and the amount of water they receive affects them. They observed the process daily in their classroom. Students learned about composting and how much waste there is from the school cafeteria every day.
- 860 youth participated in Agriculture Day. Second graders in all three school systems and Salem Christian Academy attended and had the opportunity to learn about agriculture and its importance to everyone. Each participating youth took home resources from the day, which included a book about agriculture.
- Thirty homeschool students participated in monthly enrichment classes.
 - Monthly topics included bees and beekeeping, weather, science, plants and gardening, and outdoor skills.
- Five service projects were implemented:
 - Sunshine bags were made and given to children in western North Carolina
 - Baked cookies for the Hospice home
 - Held a food drive
 - Held a toy drive
 - Went Christmas caroling to shut-ins in the community
- Four youth attended 4-H Camp at Betsy-Jeff Penn 4-H Center.
- Seven youth conducted presentations, one youth participated in the Fashion Revue, and six youth participated in the Dog Artistic Expression, at the district level competition during 4-H District Activity Day.
- One youth participated in the Youth Market Turkey Show project. The youth raised and showed his turkey at the N.C. State Fair and won third place pen sign and was 9th in his class with Rocket.
- 103 youth participated in 4-H Summer Programming.
- Through Kids Voting NC 4-H, approximately 7,000 youth (ages 5-17) across North Carolina participated in hands-on, non-partisan experiences. This program teaches youth

the importance of voting and civic engagement and helps youth understand local government. Youth had the opportunity to participate in a mock election.

Family and Consumer Science

- The NC Department of Insurance (NCDOI) and Seniors' Health Insurance Information Program (SHIIP) provided training and quarterly updates for Extension and local volunteers. 176 individuals were served by Seniors' Health Insurance Information Program (SHIIP) volunteers in Surry County with a cost savings of \$310,313 as reported by the NC Department of Insurance.
- Extension partnered with Surry County Health and Nutrition Center to provide information to help manage diabetes through the "Diabetes and You" series. Not having the knowledge or confidence to cook leads to more meals eaten out. Meals cooked at home tend to include more fresh fruits and vegetables and less processed foods, resulting in less sodium, sugars, and unhealthy fats, which can have negative effects on our health.
 - 50% of participants increased in the benefits of meal preparation and planning.
 - 90% of participants increased in the knowledge of how to store different types of fresh fruits and vegetables, resulting in less waste and reduced food costs.
 - 50% of participants increased in preparing one basic ingredient to use in two different meals.
- Storytime Cooks - Learning About Food Through Books – Weekly programs aired on Surry on the Go and social media. Shared easy and nutritious recipes, basic food safety, and food preparation tips with viewers. Kids who are more involved in the kitchen are more likely to try new foods. Lessons includes discussion about seasonal foods and where and how food is grown. Good eating habits are key to preventing health problems later in life.
- A nutrition and physical activity program for children ages four and five titled "Color Me Healthy" was presented to young children.
 - 28 children participated.
 - Parents and teachers reported 68% were more willing to taste fruits and vegetables and have increased their physical activity.
- Three Community Extension Association (ECA) Clubs contributed to local communities. The 54 members reported 6,144 volunteer hours and were recognized with a gold award at their 2024 state meeting for their efforts. ECA is the strongest and most active it has been since the pandemic.
- Regular local magazine articles were written for Surry Living and Yadkin Valley Magazines. The articles focus on nutrition, cooking, and food safety information, along with family-friendly recipes. Surry Living reaches 30,000 readers each month. Yadkin Valley Living reaches an estimated 60,000 readers through its 25,000 print magazines and online viewers every two months.
- Two comprehensive 14-hour, in-person ServSafe trainings were held in partnership with Surry County Environmental Health for food handlers to help prevent foodborne illnesses at their establishments. The program was developed by the National Restaurant Association at an affordable cost. By addressing a critical need with a well-structured and engaging training program, the restaurants represented not only achieved compliance with health regulations but also elevated their overall operational standards. The newly

certified food handlers will be able to utilize their knowledge and skills in their daily routines, resulting in improved food safety standards in their respective establishments.

- Forty-two food handlers completed the training and successfully passed their Food Safety Managers certification exam.
- According to the Journal of Food Protection, proper food safety training can reduce the risk of foodborne illness outbreaks by up to 70%.
- A study published in the Journal of Food Service Business Research estimated that effective food safety training could save the restaurant industry up to \$7.7 billion annually by reducing costs associated with foodborne illnesses.
- 19,375 contacts were indirectly reached through social media and Surry on the Go posts with programs such as Extension at Home and Storytime Cooks. This included views from nutrition resources shared via social media platforms.

Expanded Food and Nutrition Education Program

- The Expanded Food and Nutrition Education Program (EFNEP) Families Eating Smart and Moving More successfully reached more than 93 families in Surry County and encouraged them to be more active. In particular, the lesson "Choosing to Move More Throughout the Day" taught them simple ways to include more physical activity in their daily lives.
 - 72% showed improvement in physical activity behaviors. (i.e., exercising for at least 30 minutes, doing workouts to build and strengthen muscles, or making small changes to be more active).
 - Participants reported losing weight and feeling better overall. These improvements are contributing to better health for these families and save on the costs of healthcare services.
- EFNEP educators helped limited resource families learn strategies of how to feed their families healthy meals on a limited budget and increase their physical activity. There were 49 adults who graduated from the twelve-week program that benefited local families. This saves county residents thousands of dollars per year in medical and prescription costs and loss of productivity. From this program:
 - 94% showed improvement in Diet Quality.
 - 92% showed improvement in Food Resource Management.
 - 72% showed improvement in Physical Activity Behaviors.
 - 84% showed improvement in Food Safety Behaviors.
- EFNEP youth programming reached 4,399 in grades K-6th. Each program consisted of a six-week curriculum delivered at six elementary schools and various summer sites.
 - 40% youth reported a positive change in their food safety behaviors.
 - 69% youth reported a positive change in their diet quality.
 - 30% youth reported a positive change in their physical activity behaviors.

Agriculture and Natural Resources

- 34,390.29 acres in the Voluntary Agricultural Districting Program and 1,000 plus acres pending approval.
- Extension partnered with Surry County Public Works and North Carolina Department of Agriculture & Consumer Services to provide a Household Hazardous Waste and Pesticide Disposal Collection Day.

- Residents safely disposed of 745 pounds of unwanted pesticides.
- There was 25,921 pounds of household hazardous waste collected at the disposal day – 1,962 pounds less than in 2023.
- Total disposal savings of a conservative value of \$279,993 for the disposal of the items collected.
- Emergency response costs savings of approximately \$450 per pound (\$11,999,700).
- Contamination site savings of \$1,000 to \$100,000 plus depending on the volume and circumstances.
- Twenty recertification training hours were given to 509 private and commercial pesticide applicators.
- Four recertification training hours were given to 4 certified crop advisors.
- Two on-farm research trials were conducted.
 - Trial 1: Double-crop soybean official variety test (OVT)
 - Trial 2: Western Piedmont Corn Variety Trial (WPCT)
- Extension worked with corn and soybean growers to achieve high corn and soybean yields. Growers used Extension recommendations for best management practices, which resulted in five field entries into the North Carolina Corn Growers Association Corn Yield Contest, and two of those were also entered into the National Corn Growers Association Corn Yield Contest. Two soybean field entries were entered into the North Carolina Soybean Producers Association Soybean Yield Contest.
- 215 crop producers adopted best management practices, including those practices related to nutrient management, conservation, production, cultivars, pest management (weeds, diseases, insects), business management, and marketing.
- One farm installed a center pivot to help field crop production in drought. Extension assisted with this farming operation's foliar fertilizer applications by collecting tissue samples to see current crop nutrition levels to effectively help with the planning of their irrigation scheduling of the center pivot within an approximately 56-acre field. Tissue samples were collected on four different occasions throughout the growing season. This field's yield check measured in at 270.57 bushels per acre. Which, if the whole field of approximately 56 acres yielded 270.57 bushels per acre after harvest and was sold at a market price of \$4.25 per bushel, this would result in approximately \$64,340 revenue for this field within their whole farming operation.
- One corn production meeting was held. From this meeting, a corn producer reported a savings of \$42,500 due to attending the meeting and following recommendations from NC State University corn specialist.
- Tobacco farmers attended and received GAP certification during a tobacco production winter meeting provided by Extension. Without GAP certification, tobacco farmers could not sell their tobacco.
- Soybean producers attended a soybean production training and received additional pesticide training (Auxin herbicide best management practices training).
- 51 private pesticide applicators attended in-person pesticide update training and took the associated exam to be within new regulatory fumigation requirements before the upcoming 2025 growing season.
- Farm City event was held as an opportunity for farmers and businesses to network and learn about agriculture.

- The second Agriculture Hall of Fame recipient was recognized at the Farm City event.
- Extension partnered with North Carolina State University specialists and Surry-Yadkin Electric Membership Cooperative to provide in-depth corn production training and farm safety training regarding electrical hazards. 86 farmers attended, representing approximately 13,810 acres between both Surry and Yadkin counties. If all 13,810 acres represented produced an average corn yield (147 bushels per acre) and sell harvested grain at a market value (\$5.00 per bushel) this would represent approximately \$10,150,350 revenue between the two counties.
- 76 Tobacco farmers attended and received GAP certification during tobacco production winter meetings provided by Extension.
 - Without GAP certification, tobacco farmers could not sell their tobacco.
 - 3,200 acres of tobacco represented the production meeting.
 - \$15,750,400 tobacco income from tobacco farmers being GAP certified.
- The livestock program has made 57,206 contacts through community and youth events, Facebook/website posts, mailings, and radio spots.
- 397 in-person contacts have been made through livestock farm visits and livestock (cattle, sheep, and goat) producer meetings.
- Monthly beef producer meetings have expanded to year-round, with 12 meetings per year.
- Four livestock producers adopted Extension-recommended best management practices and production changes related to nutrition, ration balancing, mineral supplements, breeding, and reproduction.
- 26 livestock producers adopted Extension-recommended best management practices related to pasture management.
- 278 people received the new livestock bi-monthly newsletter that includes best livestock production practices to aid in the success and productivity of farming operations.
- One livestock producer reported a 60% conception rate with their cattle after attending an Extension artificial insemination training. This reduced his use of bulls owned, allowed him to benefit from advanced genetics using artificial insemination, saved on labor, and had minimum costs in their estrous sync program. This is a minimum savings of \$10,000 for this producer.
- Extension recommended hay sampling to increase profits for producers. From these recommendations two livestock producers saved \$56,294. Another livestock producer fed supplemental protein to their cattle that added value to their feed rations.
- The mineral program continued through partnering with the Surry County Cattlemen Association. This helped decrease mineral costs to livestock producers by purchasing in bulk. 1,441 bags of minerals were sold to producers for a savings of \$12,450.24.
- Extension partnered with the Surry County Cattlemen Association to provide cattle equipment rentals, such as a squeeze chute, to local livestock producers.
- Yadkin & Surry County Cooperative Extension hosted the 10th Annual Foothills Specialty Crop Growers' Roundtable with 40 farmers in attendance. Topics included blackberry production, precision agriculture, cover crops, greenhouse pest management, pollinators, vegetable marketing trends, farm succession, resources for new and beginning farmers, and deer management on the farm. 90% of evaluations noted the information received was invaluable to participant's farming operations.

- Extension collaborated with the Surry County Beekeepers Association on holding a six-week “Bee School”. There were 100 people participating. 88% of participants now have beehives.
- A hands-on Junior Beekeeping Certification course was offered to youth ages 5-16. Eight youth participated and five youth have a beehive.
- Seed Libraries were implemented at all five county libraries and the senior centers in Mount Airy and Pilot Mountain.
 - 1,060 people reported utilizing the seed libraries.
 - Many homeowners began to grow plants that they had not grown before.
 - Ninety percent of the people who took seed reported growing a garden.
 - Homeowners have gained knowledge of growing seeds and producing food for themselves.
- 47 gardening workshops were conducted in multiple areas throughout Surry County. Through evaluations we found that participants of the workshops valued the workshops at \$67,285.
- Extension Master Gardener volunteers attended three local farmer markets (Dobson, Elkin, and Mount Airy) with an educational booth every week of the markets.
- The Surry County Farmers Market began a market in Pilot Mountain.

Across All Discipline Areas

- 673 volunteers giving 11,485 volunteer hours valued at \$343,978.
- Western North Carolina Hurricane Helene Relief Efforts
 - Hay
 - Approximately 715 round bales of hay were transported to Western North Carolina over several loads, with at least 50 bales remaining in storage to be taken as needed. The average cost of a bale of hay ranges from \$20-\$40, assuming a value of \$30 per roll, this is a donation value of \$21,450. Most hay bales range from 400 - 900 pounds, depending on the size and type. Assuming the average weight of a bale is 600 lbs., this hay would feed approximately 397 cows for 1 month. 360 square bales were donated as well, and assuming the value of \$10 per bale would total to a value of \$3,600.
 - Livestock Supplies
 - A tractor-trailer load of livestock supplies was also donated to Western North Carolina. This tractor trailer had supplies of all kinds, including t-posts, wooden posts, barbed wire, fixed knot fencing, mineral blocks, feeders, gates, and many other items. The estimated value of this trailer was \$15,000 for the supplies. After delivery was accepted in WNC, a message was sent back stating, “Thank you, thank you, thank you. I know there were many hands that supplied this. Don’t know how to say thank you to everyone. But this will help several people.”
 - General Supplies
 - Extension and the County of Surry partnered to coordinate hurricane relief for Western North Carolina. Extension was the contact at the Dobson location (one of three locations). From Dobson, three tractor-trailer loads of general supplies were donated to Western North Carolina, worth

\$150,000. Two of the loads went to the Lincoln County Airport. From there, the supplies were divided between 25 airplane pilots and distributed to 17 remote locations. Many of the locations were only accessible by plane. Planes landed in cow pastures. The third load went to another remote location in WNC coordinated by the same contacts at the Lincoln County Airport. Matt Coe with Moser & Coe Farms donated the truck, trailer, and driver to get the loads to WNC. A video was made from the airport and can be viewed at <https://www.facebook.com/surrycountycooperativeextension/videos/1367382344236012>. Mount Airy and Elkin had trucks in their area and sent three tractor trailers loaded to WNC as well.

- Surry County 4-H gathered supplies from 4-H'ers across the county. They donated over 500 items of general supplies (nonperishable food, paper products, personal hygiene items, and pet food) worth over \$1,500 to Watauga and Ashe Counties. 4-H'ers also created sunshine bags and gave them to children in western North Carolina.
- Drone Technology
 - Extension provided guidance for one young farmer to obtain an aerial pesticide applicator license. This farmer used this license to apply pesticides to fields via a drone. He also utilized the drone to assist people in western North Carolina that were impacted by Hurricane Helene.

Challenges Discovered or Experienced in 2024

- Getting people to attend in-person workshops continues to be a challenge.
 - WIC participants in the EFNEP program find it difficult to come back out with their very young children for face-to-face sessions. Clientele became used to staying at home. Some priorities may have changed, and they did not want to attend in-person events.
- Updating contact lists is a continuous, ongoing task.
- There are more needs and opportunities in our community than can be addressed with current staffing. It is difficult to manage time for reports with the client demand of home visits, office visits, programming for the public, telephone calls, technical assistance, and our other day-to-day activities.
- Getting people (from 4-H'ers to farmers) used to meeting regularly. With many demands on time, finding a good time to meet where everyone can make it is hard and many people are out of the habit of attending meetings.
- Securing volunteers for youth programming.
- School enrichment programs are challenging to schedule. The majority of teachers prefer these programs to be conducted in the spring.
- Youth guidelines given by NC State University are strict and involves numerous pages of paperwork. This is cumbersome for parents when registering their youth into 4-H, but it is necessary before youth can participate.
- People not knowing about Extension and that we are here as a resource.
- Additional stressors on farmers with farmland decreasing and input prices increasing.
- How to handle farm transition and farm stress.

- How to increase involvement of produce and fruit producers in the local farmers' markets.

Goals and Objectives for 2025

- Hire an EFNEP Adult Educator.
- Provide programming for more diverse audiences.
- Continue to grow the local 4-H program by:
 - Offering a 4-H club within a 15-minute drive of any community in Surry County
 - Expanding Summer Fun through participation and the number of programs offered
 - Continue serving the homeschool community by offering enrichment programs, field trips, and service projects monthly during the school year.
 - Involve 4-H County Council members in leadership opportunities such as 4-H Congress, Youth Voice, and Electric Congress.
 - Increase participation in project record books and presentations at the district competition.
- Provide educational workshops throughout the year that help people and families prosper.
- Be an advocate and provide technical assistance to local farmers.
- Provide private and commercial pesticide credits to pesticide applicators.
- Conduct on-farm research plots for local data for farmers.
- Provide a Farm Succession workshop for farmers.
- Provide SHIIP counseling and enrollment assistance.
- Promote Extension throughout the county through community organizations.
- Increase social media presence to promote Extension programs.
- Participate in “Surry on the Go” opportunities to help educate Surry County residents.