

Cooperative Extension Services

Reinventing Department

Organization: 310050

| | 2010/11 Actual | 2011/12 Current | 2012/13 Requested | 2012/13 Approved | Percent Change |
|-----------------------|-------------------|--------------------|----------------------|---------------------|-------------------|
| Revenues | | | | | |
| Local | \$26,076 | \$15,828 | \$0 | \$0 | 0% |
| General Fund | 280,939 | 274,284 | 293,666 | 294,238 | 7% |
| Total | \$307,015 | \$290,112 | \$293,666 | \$294,238 | 1% |
| Expenses | | | | | |
| Personal Services | \$116,127 | \$30,616 | \$21,812 | \$22,384 | -27% |
| Supplies & Operations | 169,106 | 259,496 | 271,854 | 271,854 | 5% |
| Capital | 21,782 | 0 | 0 | 0 | 0% |
| Total | \$307,015 | \$290,112 | \$293,666 | \$294,238 | 1% |
| Employees | | | | | |
| Permanent | 6.80 | 0.80 | 0.80 | 0.80 | 0% |
| Hourly | 0.00 | 0.00 | 0.50 | 0.50 | 0% |
| Total | 6.80 | 0.80 | 1.30 | 1.30 | 63% |

Fiscal Year 2010/11 Outcome Achievements

| Total Outcomes | Achieved | Not Achieved | Success Rate |
|-------------------|----------|-----------------|-----------------|
| 26 | 24 | 2 | 92% |

Budget Highlights

Since Cooperative Extension is a Reinventing department, the focus is on outcomes when budgeting.

Performance Measurement

Fiscal Year 2012/13

In the upcoming fiscal year, Cooperative Extension will strive to meet outcomes that focus on collaborating with different community groups, promoting local agriculture to county citizens, and helping farms become more profitable while promoting sustainable agriculture practices. Additionally, Cooperative Extension will educate the public on responsible financial practices and promote green practices by working with Keep Catawba County Beautiful on beautification projects and educating the community about responsible solid waste management. Cooperative Extension Services will continue to focus on young citizens by offering leadership opportunities in 4H and encouraging youth to make healthy decisions by educating them about healthy food choices and the dangers of drugs and alcohol.

Fiscal Year 2011/12

Cooperative Extension Services has achieved or is on target to achieve all but two of its outcomes at midyear of Fiscal Year 2011/12. These outcomes focus on educating youth in the sciences and the dangers of illegal substances, educating agricultural professionals in utilizing best practices and increasing profitability of their farms, and promoting local foods in the community. The following are some accomplishments to date:

- The goal to train 150 green industry professionals was surpassed, with 459 professionals having been trained by midyear. Training was provided to 313 landscapers and their employees on Integrated Pest Management (IPM) and Best Management Practices (BMP), with 94 percent of surveyed participants indicating they increased their knowledge on the prevention and management of pest problems through non-chemical methods.
- Of the 116 attendants of the Foothills Regional Child Care Conference, 102 indicated that they had increased knowledge and 90 indicated potential educational practice changes. This exceeds the goal of 75.
- Over 500 Foothills Fresh brochures have been distributed to individuals seeking to purchase local foods, and the website has experienced 300 hits.
- Twenty-three local food service establishments expressed an interest in using locally grown produce on a recent survey. An event to connect producers and food service establishment consumers is also being planned.
- On America Recycles Day, 100 individuals signed a pledge to recycle more, including plastic shopping bags.
- Three hundred ninety-two of a planned 500 individuals have received individual consultations on plant selection, plant management and pest management.

Fiscal Year 2010/11

Cooperative Extension achieved 24 of its 26 outcomes. Annual outcomes for this department are developed around the agency's core purpose of providing citizens with scientifically-based information and informal educational opportunities focused on local needs and issues. The focus remains on the four core areas of the program: agriculture and natural resources, family and consumer education, 4-H and youth, and community and rural development.

The offsite movement of sediment, fertilizers and pesticides is a public concern with the landscape industry. To address this concern, a series of workshops on landscape Integrated Pest Management (IPM) and Best Management Practices (BMP) were held for 244 landscape companies and their employees. Of the surveyed participants, 97 percent report having increased knowledge on the prevention and management of pest problems through non-chemical methods, and 86 percent report implementing one or more practice learned, which saved an estimated \$85,025 in chemical and labor costs. Thirty-four nurserymen and their employees were trained or assisted on implementing IPM program designed for identifying and

controlling disease, insect, mites, and weed pests with minimal chemical inputs, resulting in an estimated total savings of \$215,335 on chemical and labor costs. The Commercial Horticulture Agent presented workshops for 59 individuals on proper plant selection and maintenance for landscape plantings with 91 percent of attendees indicating that they plan to diversify future plant selections for landscapes and implement updated maintenance practices. One hundred twenty-nine green industry professionals attending the Foothills Landscape Management Association Fall and Spring Workshops were taught how to properly identify lawn weeds, how to control insect pests on landscape bedding plants, which trees are better for the landscape, how to control pesticide drift and turf pests, how to manage garden ponds, how to estimate costs of irrigation installation, and how to identify spring ornamental plant diseases. Sixty green industry professionals were trained on proper pesticide selection and use as part of the annual Cooperative Extension pesticide school, which culminated in an examination with 80 percent of participants receiving the necessary grade to obtain a commercial pesticide license. An additional 60 license holders obtained recertification credits by attending 4 educational programs taught by Cooperative Extension agents on proper chemical selection and use in a variety of settings.

Cooperative Extension continues to provide local youth with high quality learning experiences. During the fiscal year, the department exceeded its goal to have 1,000 youth participate in Science, Technology, Engineering, and Math programs (STEM) offered in school classrooms and through out-of-school settings. During the year, 2,870 youth participated in science and technology-related programs offered through 4-H clubs, school enrichment (in-school), after school and summer programming. Staff continued to work with youth in the community to develop an improved sense of responsibility through a week-long 4-H residential summer camp, with 35 youth ages 8-14 participating. Additionally, 30 high school students representing each public high school and some private schools improved their skills and gained knowledge to address social problems, issues, and challenges through leadership and volunteerism as a result of their participation in the Catawba County Youth Council.

In collaboration with the Planning and Zoning Office, Cooperative Extension continued to oversee the implementation of the Voluntary Agricultural District (VAD) ordinance. The goal to enroll twenty farms and/or 2,000 acres of farmland in the VAD Ordinance was exceeded, as 18 landowners applied to the VAD Program in order to enroll 40 parcels and 5,734 acres in the program. A workshop was held with municipal leaders to explore the possibility of offering the VAD program within the extra-territorial jurisdictions of the cities and towns of Catawba County. Grant funding was also obtained for a two-day Estate Planning Workshop for 70 County residents that provided participants with basic knowledge of estate planning. Twenty of the participants made appointments with attorneys available through the workshop for individual consultations in order to gain specific answers to their estate planning questions.

As a result of Cooperative Extension's programming, and with the collaboration of Catawba Valley Medical Center's Center for Diabetes Control, Catawba County's three public school systems, and Catawba County Social Services and Public Health Departments, the department's goal of enhancing the ability of 225 adults and children to make healthy food

choices, increase physical activity and implement other strategies that will lower their risk for chronic disease was exceeded. Healthy eating education was offered to 83 adults who collectively lost 372 pounds, reduced waist measurements by an average of 2.5 inches, and lowered BMI ratios by an average of 3 units. Six participants reduced blood pressure to a healthy level. One hundred sixty-four adults participated in diabetes education classes, resulting in 75 percent of participants adjusting calories to support a healthy weight, taking medications as prescribed, and checking blood sugar at least once a day. One hundred eleven third-grade students and 59 fourth-grade students participated in a series of healthy eating and physical activity sessions which, according to student self-reports and parent observations, resulted in increased fruit and vegetable consumption, increased outdoor play, decreased soft drink consumption, and increased attention to nutrition labels. While participating in a nutrition education class, 34 high school students demonstrated their ability to assemble foods to illustrate a healthy day's menu, and 26 students demonstrated their ability to read food labels and make healthy beverage choices.

Cooperative Extension worked with a total of 311 livestock and forage producers and 4-H youth to increase their knowledge of effective management practices. These producers implemented strategies that improved profitability by \$181,910 during the fiscal year. Staff also assisted the local cattlemen's association in securing a \$30,000 grant for a weighing and load-out facility for direct marketing of local feeder calves. Youth improved livestock management skills through participation in the 4-H livestock program. Fifteen local producers attended a Pasture Weed ID and Control program to learn how to identify the most common weed species in this area, and a Weed Management program in May reached 20 farmers on weed and brush management (including an on-site evaluation of 10 chemical treatments for control of brambles). Other educational impacts for livestock producers include educational programs for 100 producers on technological advances in calf production, management strategies that promote better efficiency, reproductive management and marketing options.

Local marketing and advertising efforts for Foothills Fresh, which currently promotes 63 farms and farmers' markets in Alexander, Burke, Catawba, Cleveland, Gaston, and Lincoln counties, reached over 800 citizens. Additionally, 572 surveys were given to restaurants resulting in 48 replies indicating an interest in using local produce in their establishments.

Keep Catawba County Beautiful (KCCB) worked to raise awareness of litter caused by improper disposal of solid waste, with particular emphasis on promoting the proper disposal of plastic shopping bags and the use of alternative reusable bags. As a result, 500 individuals received reusable shopping bags, 100 individuals received a free tarp and information about laws concerning covering loads in truck beds to prevent littering, and 40 local stores were visited to encourage recycling of plastic bags and use of reusable shopping bags.

The department did not achieve two of its outcomes this year. Area agents fell short of a goal to educate 30 producers on rotational/intensive grazing systems, with 10 producers implementing. Agents worked with 2 producers to install the proper fencing and watering to begin their rotational grazing systems. Twenty producers attended a seminar on ultra-high

density stocking grazing, or “mob grazing,” to learn the pros and cons and how it can be incorporated into their grazing systems. An additional program is planned for producers on July 19, 2011. Cooperative Extension also fell short of a goal to have 100 food service establishments earn national food safety credentials by completing the ServSafe course, with 83 of 102 participants earning certification.

COOPERATIVE EXTENSION SERVICE

Statement of Purpose

North Carolina Cooperative Extension - Catawba County Center is a cooperative educational agency sponsored jointly by the United States Department of Agriculture, North Carolina State University, North Carolina A&T State University, and Catawba County. It provides Catawba County citizens with scientifically based information and informal educational opportunities focused on local needs and issues in four major areas: Agricultural and Natural Resources, Family and Consumer education, 4-H and Youth, and Community and Rural Development.

Outcomes

1. One hundred and seventy-five green industry professionals in the nursery, greenhouse and landscape business will increase their knowledge and will implement one or more Best Management Practices (BMP), ornamental plant selection, innovative production practices, Integrated Pest Management (IPM), alternatives to conventional practices, and environmentally sound practices related to protection of water quality. Evaluations will be based on implementation of practices adopted and implemented, client self-report, and participation in workshops. Those practices related to IPM and BMPs will impact the amounts of pesticides applied to the environment in Catawba County and will create an awareness among green industry professionals and employees on being better environmental stewards.
2. Acreage and/or tracts of land enrolled in the Voluntary Agricultural District (VAD) Program will increase by 6 percent of current enrollment (20 tracts and/or 500 acres). The total acreage in Present Use Value is 1,449 parcels containing 56,315 acres. Cooperative Extension will work with Planning and Parks Department to complete a Farm and Food Sustainability Plan and begin working on high priority issues identified in that document.
3. One hundred current and aspiring livestock and forage producers will increase their knowledge and 10 percent will implement one or more management practices that will improve farm profitability during Fiscal Year 2012/13. Based on recommendations presented by the Livestock Advisory Committee, North Carolina Cooperative Extension will provide educational programming as listed below:
 - a. Producers will gain knowledge on the use of alternative feeds in rations for weaned calves and replacement heifers. Clients will understand the relative feed value of by-product commodities compared to traditional feedstuffs and will acquire a level of comfort in utilizing these alternatives to save money in feed costs.

- b. Producers will gain knowledge in how to utilize more modern marketing techniques for selling weaned and preconditioned feeder calves. Cooperative Extension will educate these clients on health protocols, weaning strategies, feeding programs and marketing decisions to help improve profitability of cattle operations. Citizens will be encouraged to utilize the scale and load-out facility constructed with grant funds during 2011.
 - c. Youth livestock participants will gain a variety of skills such as improved recordkeeping, improved communication skills, responsibility, critical thinking, decision-making and subject matter expertise through their participation in 4-H club meetings, youth livestock shows, live animal projects, knowledge competitions and livestock judging.
4. Twenty percent of local food producers will agree that they have experienced growth in the amount of locally produced food sold as a result of the following efforts:
 - a. Three hundred citizens and local food service establishments will receive information on the availability of locally produced foods for use in household meals and retail food service businesses.
 - b. Twenty-five restaurant owners and chefs will be identified for participation in a “Farm to Fork” tour to help introduce restaurants to local farmers who can supply a portion of their fruit and vegetable needs. Follow up surveys with tour participants and others will be used to measure impact, adoption and behavior change.
5. As a result of North Carolina Cooperative Extension programming and with the collaboration of other Catawba County health and wellness education agencies, 200 program participants who are overweight, obese or at risk for chronic disease will increase their ability to make healthy food choices, increase their physical activity, and/or reduce risk factors for chronic diseases. Behavior change will be measured by client self-report, written evaluation tools, and other evidence of practice adoption.
6. Two hundred food handlers and consumers will adopt safer food production, handling, and distribution practices that will reduce illnesses, enhance food security, and increase the quality and safety of food that Catawba County residents prepare and consume. Behavior change will be indicated by the number of participants implementing recommended food safety practices, and the number of employees receiving ServSafe certification.
7. Forty percent of one hundred parents and child care educators will increase their knowledge/skills in providing more experiential learning practices and including a greater variety of learning activities for young children as a result of participation in educational opportunities offered by North Carolina Cooperative Extension. Parents and child care educators will effectively use recommended parenting and self-care practices, and community resources. Evaluation will be based on the number of participants,

number of educational credits awarded, and client reports of intended changes made as a result of North Carolina Cooperative Extension's programs or resources.

8. As a result of programming efforts, 50 caregivers and older adults will increase awareness and knowledge, change attitudes, develop skills, and/or adopt practices and behaviors to implement better self-care and care giving skills, and will increase their ability to effectively use community resources. Results will be assessed by pre and post workshop surveys and client self-report.
9. One hundred adults will increase their knowledge of financial management practices to cover basic necessities, increase savings, and reduce debt as a result of participation in money management workshops. Change will be demonstrated by the application of approved practices. Results will be assessed by pre- and post-workshop surveys, client self report and instructor observation.
10. One hundred consumers will increase their knowledge of the advantages of energy conservation and will increase their efficiency of energy consumption through adoption of appropriate technologies and practices. Impact will be measured by the number of participants engaging in best management practices related to energy use and conservation in the home as gathered through surveys and client self-report.
11. Two hundred youth will improve skills in leadership, citizenship, and communication as a result of participating in 4-H clubs, short-term special interest programs, and life skill building contests offered through 4-H. 4-H volunteers will improve their skills and effectiveness in working with youth in these settings as a result of participating in volunteer training workshops offered by Cooperative Extension staff.
12. Thirty middle and high school students will show improved leadership and related life skills as a result of their participation with the Catawba County Youth Council Participants will demonstrate their ability to lead an effective meeting, gain skills in planning and implementing programs based on identified needs, and improve personal leadership skills based on pre and post surveys.
13. Six hundred youth will improve their understanding of science and healthy lifestyles as a result of participating in 4-H school enrichment, and short term programs designed to enhance academic performance of students. Twenty-five new teachers will be trained and utilize hands-on 4-H science and health curriculum in their classrooms to compliment grade level competencies. Value of programs and changes in student's knowledge will be measured using written evaluations.
14. Twenty area Southeast Asian farmers will learn and develop improved skills in the following:
 - a. Soil management
 - b. Farm crop production

- c. Pesticide training
- d. Season extension technique
- e. Direct marketing technique and CSA
- f. Backyard Livestock Bio-security
- g. Organic Farming
- h. Small Fruit Production

This will be a result of attending Growers School sessions, farmer's tour, mentoring and technical assistance for individual farmers, and field demonstration. The success of these individuals will be measured by participant's surveys, personal success stories, and one-on-one contacts.

- 15. Twenty dairy and other farmers will potentially maximize farm profitability and demonstrate improved knowledge through implementation of one or more of the following farm management practices:
- 16.
 - a. Animal waste and fertilizer management
 - b. Soil and plant tissue sampling
 - c. Soil conservation practices
 - d. Forage/feed analysis
 - e. Proper manure application equipment calibration
 - f. Record keeping
 - g. Maintenance of animal waste operator certification

Evaluations will be based on participation in meetings, workshops, one-on-one assistance, field days, informal feedback, adoption of improved record keeping and business management practices, success stories and economic impacts.

- 17. Seventy-five individuals currently active or considering an agricultural enterprise will increase their comfort level in regards to evaluating new enterprise(s), and learning new production and marketing skills. North Carolina Cooperative Extension will hold a "Putting Small Acreage to Work", a "Foothills Fresh Growers School," and/or other similar workshops during the Fiscal Year 2012/2013 aimed at supporting part-time, limited resource farmers. Evaluations will be based on pre and post surveys of workshop participants, one-on-one contact, and participation in the Foothills Fresh local foods initiative.
- 18. Seventy-five horse owners will increase their knowledge of horse management by participating in programs, receiving newsletters or through personal assistance on weed control and pasture management on horse farms, farm management, disease control and prevention, horse evaluation/selection, hay and feed evaluation and horse waste management.

19. Two hundred and fifty residents of Catawba County will gain an increased awareness of litter issues caused by improper solid waste management through educational programming, workshops and events offered by North Carolina Cooperative Extension and other relevant agencies including Keep Catawba County Beautiful (KCCB). KCCB will visit 10 second grade elementary schools in Catawba County to educate children about the negative impacts of litter and encourage students not to litter. KCCB will promote proper disposal of plastic shopping bags and the use of alternative reusable bags. Evaluation will be based on evidence gathered from Litter Index surveys and Litter Sweeps that show a decrease in the number of plastic bags observed as litter and by follow up reports from teachers as they witness students' improved anti-littering behavior.
20. KCCB board members will target 100 individuals with information on Adopt a Street to promote adoption of more streets. As a result of these efforts Catawba County municipalities will experience a 25 percent increase in the number of streets adopted by citizens. Further impact will be based on evidence gathered from Litter Index surveys that show a decrease in litter.
21. Twenty-five Catawba County residents will adopt one or more new or improved waste management practices such as composting and recycling as a result of educational opportunities provided by North Carolina Cooperative Extension and other agencies concerned with proper solid waste management. Achievement will be tracked through success stories reported by clients, written evaluation, and evidence of practice adoption.
22. Five hundred citizens will show increased knowledge and awareness of proper plant selection, plant management and/or pest management practices in residential and community landscapes. This outcome will be met through plant clinics, workshops and individual consultations. Evaluation will be based on contact data, success stories presented by clients and written evaluation.
23. Seventy-five individuals will adopt one or more environmentally sensitive landscaping practices as a result of participating in North Carolina Cooperative Extension's educational programs. Programming will include proper watering and fertilizing methods, erosion control, and landscaping to encourage wildlife, conserving and protecting ground and surface water, and storm water management. Skills learned will reduce the negative impact of landscaping practices on the environment by minimizing soil and water contamination and improving environmental diversity. Evaluation will be measured by success stories reported by clients, follow-up surveys, and evidence of practice adoption.
24. Twenty-five individuals will adopt and practice edible landscaping or vegetable gardening skills through participation in programs offered through Cooperative Extension. Skills will be learned through classes and gardening demonstrations. Success

will be measured through success stories reported by clients and feedback and number of gardens maintained for home food production.

25. Twenty forage and livestock producers will learn about various forage species that they can incorporate into their grazing systems in order to extend their grazing season. Five percent of participants will implement practices to extend the grazing season and reduce the need for stored forage on their operation.
26. Thirty producers will learn about different soybean varieties, especially those with the Liberty Link gene, as it allows another way to better control Palmer Amaranth and other weeds. Producers will attend a field day to observe different varieties, while also learning about herbicide programs that are recommended with these types of soybeans. Five percent of participants will report the use of alternative soybean varieties in order to control herbicide resistant weeds.
27. Sixty field and forage crop producers will learn about and 20 percent will adopt technology and management practices to improve farm profitability in one or more of the following areas:
 - a. Efficient use of crop nutrients
 - b. Weed management and managing herbicide resistance, especially of Italian Ryegrass and Palmer Amaranth
 - c. Improved disease and insect control that will result in higher production goals
 - d. Producers will learn about the effects of the kudzu bug on soybean yields and how to minimize the damage, while maximizing their profit.