NC COOPERATIVE EXTENSION PROGRAM

North Carolina Cooperative Extension-Clay County Center is an educational partnership between the US Department of Agriculture, NC State and A&T State Universities and Clay County Government, helping people put research-based knowledge to work for economic prosperity, environmental stewardship and an improved quality of life. This organization is unique in that it serves as a university-based catalyst for progress with Extension experts addressing local issues with this research-based knowledge and resources, creating opportunities and empowering people to collaboratively solve their problems. This partnership among Clay County Government, NC State University and US Department of Agriculture results in the county investment of $86,769 in FY07-08 allowing citizens to benefit from an estimated additional $111,500 investment from state and federal sources for Cooperative Extension work in Clay County. When we include the benefit that we receive in Clay County from campus-generated grants, contracts, foundation receipts, sales, services and miscellaneous gifts, this figure is increased to $192,800.

Cooperative Extension is currently focusing on three strategic priorities:

To strengthen the economy through profitable, sustainable and safe food, forest and green industry systems.
To protect the environment and natural resources.
To empower youth and families to lead healthier lives and become community leaders.

Specific goals and objectives are established annually, based on community input (environmental scans), with priorities being established with guidance from members of our Extension Advisory Leadership System (currently involving 39 individuals throughout the county). Identified focus areas are then evaluated for their alignment with the County Strategic Plan and County Commissioners' goals. Data is gathered throughout the year, and impacts of educational programs are reported monthly for some parameters and semi-annually for other parameters in our statewide Extension Reporting System. Individual employee performance is officially evaluated semi-annually, with staff's level of performance being determined by their attainment of stated objectives.

During 2007 the Clay County staff focused on conducting environmental scans to identify key issues facing Clay County and the region. Seventy Clay County citizens from throughout the county were involved in this process. Environmental scanning is a concept from business management by which businesses and educational institutions gather information from the environment, to better achieve a sustainable competitive advantage. To sustain competitive advantage the organization must also respond to the information gathered from environmental scanning by altering its strategies and plans when the need arises. Extension is focused on a process of continuous scanning. This allows the organization to act quickly, take advantage of opportunities before competitors do, and respond to environmental threats before significant damage is done. This process allows Extension to respond to issues such as the drought of 2007, and the significant needs of farmers and livestock producers for management strategies and supplies of feed and materials for their operations.
The issues identified during these scans, when merged with internal analysis of the Extension’s vision, mission, strengths, and weaknesses and external analysis, assists Extension Advisory Members and Extension professionals in formulating strategic directions and strategic plans. The goal of environmental scanning is to alert decision makers to potentially significant external changes before they crystallize so that Extension has sufficient lead time to react to the change. Consequently, the scope of environmental scanning is broad.

Three priority issues selected by Extension Advisory members in Clay County that will be addressed through Extension Educational programming are:

1. Protection and preservation of land, water, and natural resources.
2. Workforce development and educational achievement.
3. Creating healthy families and safe living environments.

Many accomplishments have been achieved by Extension programming in the four core programming areas: 4-H, Agriculture, Family and Consumer Sciences, and Community Development during 2007.

The Clay County Advisory Council, its sub-committees and the Cooperative Extension staff have been involved in delivery of educational programs identified to meet the needs of the citizens of Clay County. The Advisory Council assisted in setting priorities for the educational needs that were identified utilizing input from the citizens and community leaders throughout the county.
Agriculture and Natural Resources

Agricultural producers are facing increased pressures to control environmental impact from production practices. There is a need to improve development and adoption of environmentally sound fertility, planting and management practices. Farmers need to have an impact on the preservation of land and open space and the uncontrolled development of prime agricultural land. There is also the need to improve the image of agriculture and deal with urban issues more effectively.

While field crops and dairy production has declined significantly, production of beef cattle, and forages has remained steady or increased slightly and significant increases in populations of horses, goats, and other specialty livestock has been seen. There is increasing interest among consumers for locally produced meat, eggs, and milk products. Significant farm income is derived from sales of feeder calves and forages.

High prices demanded for land and low returns are limiting factors that reduce the number of young people entering production agriculture in Clay County. Competition for the remaining production acres that are not being marketed for development is keen.

Horticulture in Clay County continues to change in both the commercial and the urban or homeowner areas. The urban population continues to grow with a major influx of retirees to the area. These newcomers are interested in gardening and landscaping as a hobby activity and because a well designed and maintained landscape adds to their property. Extension is recognized by this group as the premier source of this kind of information. Individuals are frequently referred to us by clients and local businesses for information on plant culture (selection, planting, pruning, fertilization, insect and disease management). There is also a large base of people native to Clay County to whom gardening is a way of life and they are aware of extension as a source of information and assistance.

This has created an opportunity for diversification in crops and marketing. It has generated an interest in Ag Tourism among producers. Small scale organic and niche crop production is growing. The growing urban population creates a need for both landscapers and nursery production. Problem solving for nurserymen and education of landscapers in plant care and culture continues to be needed.

PROGRAM OBJECTIVES

Cooperative Extension in Clay County and throughout North Carolina work on program objectives that have been determined to benefit both local and statewide populations. Though designed to meet statewide objectives, the flexibility of the Extension Service allows the programs to be tailored to local needs. The following are program objectives and narratives of some of the specific programs and their impacts during 2007.
Objective A-1: Animal, poultry and aquaculture producers including limited resource audiences will implement practices or enterprises that will achieve individual and family goals related to profitability and quality of life.

Accomplishments:

The Tri State Goat College 2 was held in the Spring of 2007. More than 35 individuals participated in the two-day event and learned better management practices in nutrition, reproduction, health and general management practices. A follow-up survey showed that 14 of the participants made improvements in these areas resulting in improvements in their overall herds and management techniques.

The Tri State Horse College was held in the Summer of 2007 to help in dealing with the growing number of horses and horse owners in the tri state region. Participants were educated in health management implications as well as better practices in equine nutrition, hoof care, safety and handling techniques. The participants ranged from beginners to those with an advanced knowledge of horses. All participants, including those well learned in these topics, indicated a great deal of knowledge gained due to the two-day clinic. One of the goals of this course was to help curb the many calls and questions from area equine producers and has, thus far, succeeded in this goal.

Objective A-15: Through the consumer horticulture program, consumers will increase their knowledge and adopt practices concerning proper plant selection, cultural practices, and pest management strategies that maximize plant performance while minimizing inputs, and protect environmental resources.

Clay County Master Gardeners

2007 has become yet another benchmark year for the Clay County Master Gardener Volunteer Association. The group is made up of volunteers who have completed the 40-hour training course and, in return, provide a minimum of 40 hours returned public service to Clay County through Extension Service programs and related activities. Over the course of the past year, the volunteers tracked a total of almost 1000 volunteer hours and more than 3200 miles of volunteer related travel. The value of this contribution to Clay County is more than $16,000.

Among their activities are beautification projects in the community and school, assisting in Extension office programs and related functions and providing horticultural education to the public. One of their latest projects was establishing an educational butterfly garden at the Hayesville Elementary School in which they involved the students in its creation. The group
has gained statewide recognition with this project and has received the 2007 NC Master Gardener Search for Excellence Award, Youth Division for their efforts.

**Objective E-5:** ECOLOGICAL AWARENESS: Participants, particularly youth, will increase their appreciation for and knowledge of biological diversity and ecosystem management.

The Clay County Extension, partnering with the local SWCD, was invited into the local school system to work with the 5th and 6th grade students on a monthly basis to help educate them on environmental conservation, agronomy, and biological diversity. The students actively participated in exercises that demonstrated their potential roles in the ecosystems surrounding them and wise use of limited resources at their disposal.

The program has been so successful expansion into the 8th grade classes has already been implemented.

**Ag in the Classroom**

The 2007 school year provided the first opportunity for Extension to extend its agricultural education into the local school system. Since the late 1980's, the Clay County School system has been among the less than ten school systems in the state without an agriculture education program. The face of agriculture has undergone tremendous changes over the last couple of decades, particularly in Clay County. There is certainly the need for knowledge of traditional farming, but agriculture has become a much broader industry locally. The sudden growth of development has created a greater need and work opportunities in landscaping, nursery production, soil sciences, environmental conservation, water quality, forestry and a variety of additional arenas that can provide future jobs for Clay County students.

It is our hope that, through this program, we can help students see the vast opportunities that are available to them through agriculture even in their home town. Since November 2007, Cooperative Extension has partnered with the Soil & Water Conservation District in working with Hayesville Middle School students, visiting each of the 5th, 6th and 8th grades once a month. The students have been very enthusiastic and actively participating in the learning activities dealing with water quality, soils, plant nutrition, and environmental quality included among the variety of agricultural aspects.

**Objective E-6:** NATURAL RESOURCE DECISION MAKING: Limited resource and other audiences confronted with a wide range of viewpoints on natural resource and environmental management issues will gain knowledge, awareness, understanding, and skills to develop plans for overcoming barriers that prevent them from realizing the link between informed decision making and the capacity to sustain natural resources.
The Clay County Cooperative Extension, in partnership with the Clay County School system and Junior Civitan Club, has been able to sponsor, through education and implementation, a paper and plastic recycling program in the 5th and 6th grades of the Hayesville Middle School. With the involvement of the Junior Civitan Club, the program is self sustaining and has helped to make every teacher and class become actively involved by their taking ownership in the program. This program has provided an open door into the school system and is planned to expand throughout all of the Middle School grades in the coming year.

An intensive recycling and solid waste management education series has been conducted with all elementary school youth and their families. The series reviews and explores more in-depth lessons as the youth progress from Kindergarten through 4th Grade. Annually approximately 550 students participate. The program teaches and reiterates each year the importance of environmental quality to these young children but the children along with supplemental information encourage the parents and entire family become more environmentally friendly. According to the Clay County Recycling Center, recycling has increased by 10% each year since the program began in 1998. There has been a 75% increase in recycling in the families with school age children. Littering has decreased by 5% each year with a total of 45% decrease in overall litter in Clay County.

Future Programming:

In addition to our ongoing programs, future plans, based on needs assessments of specific client groups and the general public, include classes and workshops on: Plant Propagation; Hemlock Woolly Adelgid Control; Grafting; Hobby Greenhouse Construction and Shiitakii Mushroom Production.
Community Development

Many communities in Clay County have been organized since the early 1950’s. Many community improvements are directly linked to the efforts of these local leaders. This very active group of organizations has been instrumental in the establishment of rural fire protection, beautification efforts, roadside clean-ups, and improvements in local recreation facilities, and other community improvement activities. These groups serve as an educational outreach to their respective communities as programs are delivered through them to local citizenry related to issues of growth, land use, and other important issues. Many of the community leaders gain training and establish networks that allow them to provide input into the local and county decision-making process.

Currently we have six community groups: Brasstown, Jarrett Road, Tusquittee, Warne, Sweet Water and the Shooting Creek Ladies Auxiliary.

Family and Consumer Sciences

Family and Consumer Science programming in Clay County utilizes an advisory group of citizens and agency persons that meet yearly and help prioritize the needs of the county population.

Currently, Family and Consumer Science programming is concentrating in the following areas:

STRENGTHENING AND SUSTAINING FAMILIES

Building Healthy Families

F-1: Objective: North Carolinians, including limited resource individuals/families will improve the quality of their lives through eating healthy, being active, handling food safely, managing resources for food security, and practicing health-promoting behaviors.

-Eat Smart, Move More, Weigh Less (ESMMWL)– 22 Clay County citizens participated in this weight loss series that encourages sensible eating, moderate exercise and lifelong behavior change to reach weight loss and health goals. The program measures: pounds lost, time exercised, increased consumption of fruits and vegetables, increase fiber intake, reduction of cholesterol, blood pressure and diabetes – reducing likelihood of chronic disease.
Through a Walking Program, ESMMWL, Friends of Extension, youth recreational basketball, and Hayesville Little League encouraged people to get out and get moving. Through education stressed the importance of physical activity and the benefits on health. Encouraged use of the new Recreation Center (gym and workout room), ball fields, Spikebuck Walking Trail, Clay County Schools’ track, Clay County Dam/Campground Walking Trail, and the Jack Rabbit Mountain Bike Trail.

Fostering Resiliency for Families in Transition

**F-3: Objective:** North Carolinians, including those with limited resources, will develop skills and strategies to manage effectively their personal finances through expected and unexpected economic change and life events

Year of Financial Fitness – Introduce families, especially low-income families, to the basics of financial management including budgeting, savings, debt reduction, and overall financial fitness. This focus was introduced in 2007 with printed information in newspapers, newsletters, and so forth. Plans are to collaborate with other agencies and conduct a Financial Fitness Fair and a presentation on Retirement Planning, March 17, 2008. Encouraging families that are deeply in debt to utilize Power Pay, a computer debt reduction program that analyzes a family’s debt and shows the fastest way to pay off that debt.

Change A Light – Change The World – Distributed over 500 compact florescent light bulbs (CFL), with educational information, creating awareness of the benefits of using CFL’s and the positive impact on our environment. Those receiving bulbs pledged to change other bulbs in an effort to “change the world”, one light bulb at a time.

Developing Leadership and Community Capacity

**F-4: Objective:** Individuals and groups will develop leadership skills and take action to maximize development and use of community resources leading to improved quality of life for all families.

31 Friends of Extension members commit 50% of their efforts toward Community Service. Projects include: Support of Extension and their programs (Awards Program, etc), Handmade Quilts for sick/needy babies/children in the area, pillows for dialysis patients, educational puppets for day cares, and Relay for Life projects.

**Adult EFNEP**

The Expanded Food and Nutrition Education Program is a federally funded educational program conducted through the Cooperative Extension in every state and US territory. In NC it is administered through NC State University and NC A&T State University.
For more than 3 decades, EFNEP has helped limited resource youth and families, with children, learn how to eat healthier meals and snacks, stretch food dollars and reduce the risk of food borne illnesses. Additionally, in collaboration with other organizations through the Eat Smart and Move More initiative, NC EFNEP aims to reduce the rising tide of obesity. Teaching youth and families practical skills has resulted in positive behaviors.

EFNEP reaches families with incomes at or below the poverty threshold, or families that qualify for federal food assistance programs (WIC, Food Stamps, TANF, Head Start, free or reduced school lunches) when these families have school age or younger children living in the home. Pregnant women who qualify for WIC also qualify for EFNEP. Other programs that EFNEP collaborates with are TEFAP emergency food program.

EFNEP helps adult participants learn skills and strategies to feed their family nutritious meals on a limited budget and improve their overall health. The skills learned also help families learn how to change behaviors that place them at risk for obesity and diseases associated with being overweight. The curriculum consists of 22 lessons under five major headings. When taught on site there are nine core lessons given. The program is conducted in a classroom setting or on site at local offices. Clay County Adult EFNEP is located at Clay County Health Department WIC office. The EFNEP Program Assistant provides valuable educational information consisting of a 20-minute lesson. Lesson materials are given to each participant to take home.

Limited resource families need to acquire knowledge, skills and changed behavior for nutritionally sound diets. Using the EFNEP's Families Eating Smart and Moving More curriculum, Nutrition Program Assistants taught individuals and groups nutrition education including food preparation skills. 42 participants enrolled in programs for limited resource families. 100 of the 30 EFNEP graduates showed a positive dietary change in any of the food groups at exit. 97 showed improvement in one or more nutrition practices (i.e. plans meals, makes healthy food choices, prepares foods without added salt, reads nutrition labels, has children eat breakfast) 80 of graduates showed improvement in one or more of the food safety practices (i.e. thawing and storing foods properly).

The presentation on food safety through Clay County’s EFNEP made a real impact on one of our homemakers. After being shown how bacteria grows so rapidly that it could make her family sick, she stopped her old habit of thawing frozen foods and meats at room temperature. She stated, “I no longer do this”.

In conjunction with the Clay County Health Department, the North Carolina Cooperative Extension EFNEP put into place a series of 5 menus that was sent to the North Carolina Healthy Carolinians Group. The Healthy Carolinians then distributed them in the Hayesville Elementary School. They were sent home with each child from the 5th grade through the 8th grade. The menus were and still are an overwhelming success with parents. The parents rave about how easy it is to plan ahead from these menus. The menus make their lives simpler by knowing what they will have for dinner when the day becomes too busy to think.
Just by doing this simple task, families are starting to have more meals at home and enjoying quality time together. Parents have stated they get the children involved in helping out with preparing the rest of dinner.

The program goals:

Improve the diet and health of the total family, including young children (infants and preschoolers) school age children and teenagers, and pregnant women.
Increase knowledge of the essentials of human nutrition and physical activity and their relationship to overall health.
Increase ability to select and buy foods that satisfy nutritional needs of the family.
Increase ability to prepare and serve low cost nutritious foods that are safe to eat.
Improve practices in food storage, safety and sanitation.
Increase ability to manage resources that relate to food, including food stamps.
Connect participants with additional resources that can help provide for their family’s needs.
Encourage personal development of participants.

FUTURE PROGRAMMING:

Clay County 4-H Program

The 4-H mission is to help youth learn skills for living. The vision is to be a leader in maximizing community and university resources to help youth, adults, and families reach their fullest potentials. 4-H is part of North Carolina Cooperative Extension and the only youth development organization to use university research as the base for its activities.

The goal of 4-H is to assist youth in meeting the basic needs, developmental tasks, and essential life skills through planned “learning by doing” experiences.

Clay County Cooperative Extension plans to continue programs already in progress. Recycling (Elementary and Middle), ESMMWL, 4-H Camp, 4-H Camp Challenge, 4-H Horse Club, 4-H Presentations, Friends of Extension, and Families ESMM.

Future plans are to:

- Organize a new Livestock 4-H Project Club - plan to meet with potential leaders week of March 10th.
- Continue with and expand Financial Fitness activities (already mentioned in document)
- Support Walking Program with monthly educational lessons (already mentioned in document)
- Hopefully conduct Dining With Diabetes - Cooking School Series to support the efforts the Health Department is doing in Diabetes Education
DEVELOPING RESPONSIBLE YOUTH

**Objective 4H-1.1:** Youth will adopt behaviors that will contribute to their total health and well-being.

**Objective:** Youth increase life skill knowledge, subject matter and leadership skills.

Saddle-Up 4-H Horse Club – Organized Fall 2006, 2 adult leaders and 19 youth. Club meets monthly and is conducted by youth leaders. Club meetings consist of: Educational Programs, Fund Raising, Community Service Projects, and Recreational Activities

Being painfully shy, Rose Goyette has problems that limited her success in school, making friends and many other avenues of everyday life. Last fall Rose became president of the new 4-H Horse Club in Clay County. Officer Training, gave Rose the skills and confidence to led her club through multiple learning experiences and fundraisers. A major milestone was, Rose agreeing to do a presentation at 4-H District Activity Day. Rose won 2nd place and immediately began planning for next year. Rose's mother was so proud and says, “Rose has gained skills and confidence in public speaking and leadership and will only improve with practice and the positive experiences, such as 4-H provides.”

District 4-H Horse Clinic – 2 youth from the Horse Club attended the district Horse Clinic and learned horsemanship skills to utilize with their horse and club.

4-H District Activity Day – 3 youth confronted their fear of public speaking and presented presentations to their peers and then at 4-H District Activity Day. Two of the youth received 1st place and one received 2nd place at the district competition.


Camp Challenge Leadership Camp afforded 16 high achieving, limited income youth from Clay County the opportunity to attend summer camp. These youth from across NC worked together and gained skills that better prepared them to be our future leaders. The experience gave these 16 youth their first real taste of the world around them. Not only did the children develop leadership skills that will ensure their future success but it also provided the
experience of interacting, working, learning, socializing and living with children and young adults from diverse backgrounds, races, and physical abilities (particularly the deaf) which is seldom available in rural/remote Clay County.

Recycling Adventures Education – All Hayesville Elementary School students, their parents, teachers and assistants gained knowledge in recycling and solid waste management. Educating over 550 students as to the importance of recycling on our environment and future, while providing parents with information encouraging their participation and support, creates awareness to the issue and realization to the need.

Recycling Adventures Education and Practice – With the guidance of Cooperative Extension and the education these students have received all through elementary school, Hayesville Middle School began an in school recycling program. With the support of Hayesville Middle School Jr. Civitan, Hayesville Middle School administration, teachers and students, each room in Hayesville Middle School is recycling paper and #1 plastics. Plans are to measure the recyclables collected and report what impact this effort has made to Clay County.

Good Sportsmanship, Sports Safety and Becoming More Physically Active was the theme of Goodie Bags distributed by Cooperative Extension to the 303 youth who participated in Hayesville Little League 2007. Youth and parents received information and samples on nutrition, the importance of physical activity on weight and health, nutritious snacks, sun and sports safety, hydration, and good sportsmanship at Opening Ceremonies, in a effort to get the season off to a good and safe start.

Programs Specific to Clay County --2007

4-H/Discovery – Farm to the Table – 60 youth, ages 5-10, attended workshops throughout the summer on health, nutrition and fitness. The workshops encouraged eating more fruits, vegetables and nuts and being more physically active. The grand finale was a fun-filled Farm Day where all the children learned about farms and the importance of farming to our food supply and health.
Model Rocketry - 29 youth, ages 11-13, learned the Newton's Law of Motion and how they relate to rockets. Each child built and launched their own rocket.

“Summertime Cookin’ With Clyde” is composed of six educational programs designed to improve and re-enforce children and their families healthy eating habits: They eat less fast food; prepare and eat their nutritious main meals as a family together at home at least five times per week, and increase their families physical activity. The success of this program during 2007 has led to securing $10,000 in grant funding to support continued youth education during 2008.

In Home Breast Feeding Support is a joint effort between the Clay County Health Department and Cooperative Extension. Research has proven that significant lifetime health benefits result from breastfeeding infants. Support has traditionally come from mothers and grandmothers, relying on personal experience in child rearing. In our current mobile society this link is often missing. Working with families of Clay county to encourage breastfeeding and specialized training in techniques to encourage and support these mothers has allowed our program assistant to achieve the highest number of infants still breastfeeding at six months of age in the far west counties. The Clay county WIC program was given an award for the highest percent of infants still Breastfed at six months of age.

Volunteer efforts are a necessity within any community. Clay County is no different and we certainly want to take every opportunity to show our appreciation to those who give of themselves so sacrificially. On Monday, January 29, the Clay County Extension Service hosted the county's 18th annual Community Awards Banquet. There were approximately 110 in attendance to celebrate the efforts of 29 outstanding volunteers for their accomplishments throughout 2006. As one volunteer mentioned, "This really makes me feel like I'm apart of something special." It truly is our opportunity to help make all of our volunteers feel appreciated for all they do. We've been made aware of the success of this program by many such comments from our volunteers and by the continual growth of the program each year. This spirit of appreciation has continued to encourage our volunteers on to faithful service within our community.
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