“The agent in the field of the Department and the college is to be the mouthpiece through which this information will reach the people — the man and woman and the boy and girl on the farm. You cannot make the farmer change the methods which have been sufficient to earn a livelihood for himself and his family for many years unless you show him, under his own vine and fig tree as it were, that you have a system better than the system which he himself has been following.”

Asbury Francis Lever, co-author of the Smith-Lever Act of 1914

A land-grant university, established by the Morrill Act (1862), gave states federal lands for the establishment of colleges offering programs in agriculture, engineering, and home economics as well as traditional academic subjects. In 1914, the Smith-Lever Act provided for the development of the Extension Service using land-grant universities. Administered under the United States Department of Agriculture, the Cooperative Extension System is composed of more than 100 land-grant universities across the US. In South Carolina, the Extension Service is based at our two land-grant institutions, Clemson University and South Carolina State University, in all 46 counties, and at five Research & Education Centers.

The Extension Service “classroom” is the farm field, the timber stand, the church social hall, the playground or the neighbor’s kitchen. While the mission of the extension service is to transfer research and academia to practical application - to bring the resources of the University to people where we live and work - quite often, the teacher is not identifiable. The Extension Agent often teaches, but more often facilitates learning. All of us, as we plant cotton varieties, tour and observe practices of fellow forest landowners, research food safety issues, build rabbit hutchs or program robots, learn from each other cooperatively.

As time changes, issues change, lifestyles change, technology makes rapid changes in the way we as Americans live and do business, therefore Extension changes. Programs and activities for youth now include computer programming and resource conservation. Service projects have international scope. Citizens look to the Extension Service for education on maximizing financial and natural resources in Master Gardener, Forest Landowner and Naturalist programs. Businesses look to Extension to train and certify employees in the latest food safety practices. The automated and internet-based Home and Garden Information Center as well as the extension website are internet-based systems which give clients round-the-clock access to trustworthy, balanced views of specialized information and education on a wide range of topics. The number of local extension offices has declined over the years, and some county offices have consolidated services. It is our hope, though, that this Report to the People, will reflect to you that the core mission of Extension continues to be to strive to meet public needs at the local level.
4-H Shooting Sports Teaches Life Lessons
Morgan Judy - 4-H, Home Horticulture & Master Gardener

The Orangeburg County 4-H Shooting Sports program has become one of the largest, most popular 4-H programs in the county. Mid-Carolina 4-H Shooting Sports Club meets locally at Mid-Carolina Gun Club on Kennerly Road near the Orangeburg/Calhoun County line. With 38 enrolled members from Orangeburg and surrounding counties, the club continues to grow and recruit new members. There are also 20 4-H certified shotgun instructors. Depending on the time of year, the club meets weekly or bi-monthly. Certified instructors are always present to teach youth about gun safety and the principles of the various shotgun disciplines. Shotgun disciples taught include trap, skeet, and sporting clays. Instruction is very hands-on and it focuses on the 4-H “Learn By Doing” teaching method. Competitive opportunities are available for those who are interested in testing their skills against other shooters. The Mid-Carolina 4-H Shooting Sports Club has competed in numerous tournaments state and nation-wide and the club has been very well represented. Another aspect youth learn in the Mid-Carolina 4-H Shooting Sports Club is leadership. The club has elected officers who lead and conduct their regular meetings. This club is open to anyone who has an interest in learning gun safety, the various shotgun disciples, and the principles of 4-H. Youth interested in 4-H Shooting Sports are not required to own their own shotgun as the club has guns available for use. Shotgun shells are also provided at a minimum cost. For more information on joining the Mid-Carolina 4-H Shooting Sports Club, please contact the Orangeburg County Clemson Extension office.

Photo Caption: Orangeburg County 4-H member Alex Ahlin competing at the SC Youth Shooting Foundation Sporting Clays Championship while Coach Bernie Till looks on (May 8, 2010).

Photo Caption: Will Till and John Cuttino with medals won at Partridge Creek Skeet and Trap event on Feb 27, 2010. The 4-H Junior varsity team, consisting of John Cuttino, Daniel Settana and Will Till, won first place with a squad score of 166 in the 4-H Junior division and first place in the SC Youth Shooting Foundation Intermediate Advanced division. Will Till won High Overall in both divisions with an individual score of 81 on the 100 target course.
4-H Helps People in Need
Leigh Walker, 4-H Agent

A hallmark of any comprehensive 4-H project is service and leadership. 4-H members pledge to use what they have learned to teach, lead and to serve others. The Singletary family has a heritage of working as missionaries to Haiti. Though having been in Orangeburg County for a number of years, many of the Singletary’s friends remain in Haiti. When the earthquakes struck in January 2010, senior 4-H member Michael Singletary was moved to action. Working with missionaries to Haiti, he found out about specific needs of the residents. He developed his senior-level 4-H service and leadership project around filling those needs. Michael created a presentation on the geography, history and culture of Haiti and showed it to schools and community groups in six counties. He organized a medical supply drive and was overwhelmed by the response. Entire schools, churches, 4-H clubs, businesses, doctor’s offices, and many individuals donated thousands of large and small medical supply items and equipment: cotton balls and band aids, examining tables and an EKG machines. Michael and his family packed the supplies and hauled them to Kansas where they were then shipped to Haiti, via Friend Ships, a non-profit, charitable shipping line.

That was the first shipment. Since then, Michael continues to collect and organize donations and plans for another shipment in the very near future. Included in this second shipment will be lap quilts for 20 children. Michael and his mother, Marilyn, led a 4-H sewing class in July. Thirteen 4-H members learned to sew using a machine and by hand. Twenty quilts were completed. Sewn on the corner of each quilt was a 4-H patch and members wrote patch personal notes to the Haitian children who would receive the quilts.

Michael’s 4-H service project was featured on a Columbia area television station and his family was recognized by Columbia Metro Magazine and the Central Carolina Community Foundation in their first annual Philanthropy awards program.

Members of the Green Angels 4-H Book Club like to read and they share their enthusiasm with others. Led by Debra Wade, members participated in “Operation Paperback,” a national non-profit initiative that “gives our troops the opportunity to escape into a good book.” Club members designed collection boxes and put them in their respective schools and churches. Soldiers made specific requests for various genres of books. 4-H members collected hundreds of books over the course of several weeks, and then sorted, packaged and shipped them to soldiers in Kuwait, Afghanistan, Saudi Arabia and the Philippines.

Other ongoing 4-H service projects throughout the year are: the neighborhood litter pick-up by members of the Eutawville Community 4-H Club and Calhoun County 4-H Club’s annual canned food drive that benefits Calhoun Cares.
Teaching Landowners how to Optimize Tree Growth through Proven Thinning Techniques
Beth Richardson, Extension Area Forester
Calhoun, Orangeburg, Clarendon, Richland, Lexington and Aiken Counties

Forestry is the number one industry in South Carolina adding dollars to the average wage earners income. Ergo, it is the forest landowners of South Carolina that are providing the bulk of the wood going to the forest industry mills, whether it be pulpwood, sawtimber or poles. Many forest landowners have only one harvest in a life time; thus, they have not been interested in managing their woodlands. However, some landowners look at growing trees as an investment that is important to diversifying their portfolio.

One of the most important forest management tools is thinning the trees so that the remaining good trees can grow larger. Over the years, as the bobtail trucks fell into the past and with mechanized logging, thinning trees has been reduced to a simple pass of taking out every third row.

Through the research of Ralph Amateis, VPI has proven that taking out every third row and nothing else, does not promote diameter growth. When looking at a volume chart, there is more volume in a 14-inch diameter one-log tree than in a 10-inch diameter tree with three 16 foot logs. Thus, growing diameter is very important.

The first Conservation Reserve Program (CRP) trees were thinned in 1999 at ages 10 and 11 years old. At first, it was thought that trees that small could not be commercially thinned. However, with the advent of whole tree chipping, several stands in Clarendon County were the first CRP stands to be thinned in the United States. These stands had to have a thinning between ages 10 to 13 so that they would be eligible to stay in the CRP program. A company out of Georgetown, SC, Low Country Forest Products, began thinning the stands in January, 1999. The stands were thinned every 5th row and most of the bad trees were taken out in between the 5th row, down to a basal area of about 50 square feet. All of the CRP tracts were planted with SCFC non-genetically improved seedlings.

Dr. David Dickens measuring total tree height, stand age 10, after 1st thinning on the Plowden Tract February, 1999.
After the initial thinning, the landowners agreed to have their trees managed for timber production. Ergo, when the average tree total crown ratio began hitting 35%, they were thinned again (in 2006).

The Benbow Tract after 2nd thinning 2006.

The stands were thinned so that all of the smaller diameter wood was taken out as well as all trees that would not make a sawtimber tree. Over all the tracts cut, there were only 3 loads of chip-n-saw cut with the Plowden Tract not having enough chip-n-saw to make 1/3 of a load.

By the time the stands grew another 3 years, it was clear that all of them needed another thinning, thus, a 3rd thinning was planned.

3rd generation, Sharon Coleman, standing in the woods (that her grandfather planted) for the first time with a timber buyer. More ugly trees, like the forked tree on the left, were removed from the stand. (Benbow Tract)
At age 21, the tracts were thinned for the 3rd time and nothing but sawtimber or potential sawtimber was left in the stands. Absolutely no pulpwood trees remain.

SC Forestry Commission Forester, Guy Sabin stands in front of a tree on the Benbow Tract, SI5080, Fuquay sand, age 22 (herbicide treatment is controlling competition).

Coring the tree to see the results that thinning has on tree diameter.

The tree is growing 6 years per inch, thus, every 6 years, it is growing 2 inches. The rings show that the tree was slowing down before the second thinning.

The McCutchen Tract age 22 (to receive herbicide treatment in 2011). The goal is to produce 10,000 to 12,000 board feet per acre by age 26. This can be accomplished by having 80 to 90 of the best trees per acre (14 to 16 inch diameter at breast height with 1.5 to 3-sixteen foot log trees).
In summary, these demonstrations are to show landowners how to get the best growth response by using good silvicultural thinning practices proven through research that optimizes the growth on the very best trees. These thinning methods are yielding an internal rate of return (IRR) up to 22%. All of this can be accomplish with no genetically improved seedlings and no forest fertilization. However, all stands had an herbicide release at ages 21 through 23. This information is disseminated through tours and county forest landowner association meetings.

Sixty people attend the Lexington Forest Landowner’s Association meeting to learn more about thinning loblolly pines.
Services to the county:
- Write nutrition articles for local newspapers
- Family and Community Leaders Organization—Serve as (FCL) Advisor
- Certified Serve safe Educator---Food Safety and Nutrition Programs
- Nutrition Programs------County
- Special Program—“Vacation Family Retreat” program (annually)Fitness & Nutrition
- Teach Serve Safe Employees classes

Program:
The School Nutrition program in County provides meals that meet the school-day nutritional needs and promoted the long-term health of children and youth. According to the State Department of Education, it is the largest program serving over about 1 million meals daily to school children.
The State Department of Education requires every County School Nutrition Program Director to provide annual continuing education for foodservice workers. Young children are among most at risk for food-borne illnesses form poor food handling practices.
Serving safe food is a critical responsibility for school foodservice and a key aspect of a healthy school environment. Keeping foods safe is also a vital part of healthy eating and a recommendation of the Dietary Guidelines for Americans 2005. When properly implemented, HACCP-based food safety programs will help ensure the safety of the school meals served to children across the Nation.

Extension Role:
Family and Consumer Science Extension Agents are a primary resource for School Nutrition Education programs in various locations.

Impact:
Of the school foodservice employees who completed the ServSafe employee training, 100% improved their food handling knowledge. The comparison of pre and post test score indicates that the school foodservice employees who completed the ServSafe employee training significantly improved their food handing knowledge in all major areas of food safety namely recognizing hazardous situations, receiving and storing foods, preparing and serving food safely, preventing, contamination, personal hygiene, cleaning and sanitation. After training, 100% of the participants expressed their preparedness to follow recommended food handling practices.
Nutrition:
Health, Wellness and Fitness is very important in our everyday living. Eating right, cooking healthy meals and physical fitness plays a major role with our health. Every year thousands of deaths, hospitalizations, and millions of illnesses occur and some caused by food borne illness within the United States. Of course, it takes only one incident of food borne illness to occur without the proper training. This can cause major damage to the image of business, result in legal battles and fees, increase insurance premiums, and close the establishment doors forever. Providing educational nutrition programs and ServSafe training classes to the consumers helps improve their knowledge in healthy meal preparation, at least 30 minutes of fitness and also being trained in Servsafe course which includes topics such as, An introduction to Food Safety, Personal Hygiene, Using Thermometers and keeping Temperature Logs, Receiving and Storing Food Safely, Preparing and Serving Safe Food; and Cleaning and Sanitizing.

COOKING HEALTHY, EATING SMART—educational nutrition project conducted, an eight-lesson curriculum designed to teach rural, older adults who have limited resources about how to make safe and healthy food choices, use healthy and simple food preparation practices, and safely handle food.
Cotton Variety Trials Help Farmers Make Better Decisions
Charles W. Davis, Jr.
County Extension Agent
Calhoun/Orangeburg/Richland Counties

Cotton farmers are faced with many decisions about which varieties will do best on their farms. Most of these decisions will be based on yield data. Until recently these decisions often were made based on yield data that was generated in another state or region of the country.

At the urging of local farmers and cotton industry representatives it was decided to initiate a series of county cotton variety trials, all using the same varieties. This would give farmers in our state a look at 7-10 plantings of the same varieties across the state and indicate how effective these varieties would be for our area. This required the cooperation of not only farmers in 7-10 different counties, but input from the cotton seed industry, who would be asked to donate $20,000 to $30,000 in seed each year. Each company was allowed to put their top two varieties in the trial.

The county cotton trials are entering their fifth year. Support from farmers and the cotton industry have been outstanding. Farmers are asked to plant strip trials of each variety and manage it as they would the rest of their cotton. The plots can be either dry land plots or irrigated. At the end of the season, yield data is taken with the assistance of the local cotton industry representatives. The participating companies are given access to the yield and fiber quality data, and the state’s farmers are provided the same data to help make their planting decisions.

The data is used in conjunction with the state Official Variety Trials which are conducted by Dr. Mike Jones, State Cotton Specialist.

The County Cotton Variety Trials have been popular with both farmers and cotton industry representatives because they generate local data, and because they are done under farmer control and conditions. Farmers get to look at the industries top varieties, side by side, and cotton industry representatives get to put their best products on the line. The value of these trials can be expressed in several ways. The cotton industry gains by showcasing their varieties. Clemson gains by increasing farmer interaction in field research, and farmers gain by having access to information that helps them make better decisions. The total acreage of cotton in Calhoun, Orangeburg, and Richland counties in 2010 was 49,490 acres. Based on research data, the information
provided by the County Cotton Variety Trials helps farmers make variety decisions that conservatively gain them 150 pounds of cotton per acre, by allowing them to see and get yield data from the top cotton varieties available in the marketplace and grown in their area. The value of this effort to the farmers in these three counties alone is worth $4.23 million dollars at the cotton loan rate of 57 cents per pound. Considering the high price paid for cotton this fall (over $1.00 per pound), the value of Extension efforts for cotton farmers in the Calhoun/Orangeburg/Richland area increases to $7.42 million, broken down as below:

Calhoun County Value: 21,438 acres x 150lbs x $1.00 per pound = $ 3.21 Million
Orangeburg County Value: 26,881 acres x 150lbs x $1.00 per pound = $4.03 Million
Richland County Value: 1171 acres x 150lbs x $1.00 per pound = $ 176,000.
Extension Workers Creed

I BELIEVE in people and their hopes, their aspirations, and their faith; in their right to make their own plans and arrive at their own decisions; in their ability and power to enlarge their lives and plan for the happiness of those they love.

I BELIEVE that education, of which extension work is an essential part, is basic in stimulating individual initiative, self determination and leadership, that these are the keys to democracy and that people, when given facts they understand, will act not only in their self-interest but also in the interest of society.

I BELIEVE that education is a lifelong process and the greatest university is the home; that my success as a teacher is proportional to those qualities of mind and spirit that give me welcome entrance to the homes of the families I serve.

I BELIEVE in intellectual freedom to search for and present the truth without bias and with courteous tolerance toward the views of others.

I BELIEVE that the Extension Service is a link between the people and the ever-changing discoveries in the laboratories.

I BELIEVE in the public institutions of which I am a part.

I BELIEVE in my own work and in the opportunity I have to make my life useful to mankind.

Because I BELIEVE these things, I am an extension worker.