

# Annual Report to the People

November 2012  
Calhoun County



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## Mission Statement

The mission of the Clemson University Cooperative Extension Service is to provide sound, scientifically based information to South Carolinians and help them use that information to improve the quality of their lives.

## South Carolina Extension Agents Host National Conference

### Charles W. Davis, Jr. - County Extension Agent

During the week of July 13-19 the South Carolina Association of County Agricultural Agents hosted the 2012 Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents in Charleston. The conference culminated 4 years of planning by the South Carolina agents and was the first time in history that the conference was held in South Carolina.

In Charleston, 1360 NACAA active members, spouses, sons and daughters and life members were in attendance. This is one of the largest attendance numbers at our recent meetings. Extension agents came from as far away as Hawaii and Alaska.

Professional development opportunities were many. There were 155 posters displayed highlighting Extension programming and research from across the United States. More than 110 NACAA members presented over 80 hours of professional improvement to attendees during the meetings. One of the highlights of the conference was tour day. South Carolina agents arranged and led over 20 tours of agricultural operations and businesses on the last day of the conference. Two tours were conducted in Calhoun County - one a row crop tour and the other, a sustainable agriculture tour. Over 100 county agents from across the country participated in our local tours.

The row crop tours focused on cotton and peanuts and visited the farms of Kent Wannamaker, John Hane, and Perrow Farms. The opportunity to discuss agriculture with local farmers was one of the most anticipated events at the national conference. The sustainable agriculture focused on organic production and visited local farms of Ray Oliver and Tris Waystack.



Fort Motte farmer John Hane explains how a cotton plant grows to 75 members of the Row Crop Tour as part of the National Association of County Agricultural Agents meeting in July.

# Powering the Future – Calhoun County 4-H

**Leigh Walker – Area 4-H Agent**

In September 2010, the President’s Council of Advisors on Science and Technology stated in a report to the President: “As the world becomes increasingly technological, the value of (ideas and skills of the population) will be determined in no small measure by the effectiveness of science, technology, engineering, and mathematics (STEM) education in the United States. STEM education will determine whether the United States will remain a leader among nations and whether we will be able to solve immense challenges in such areas as energy, health, environmental protection, and national security.”



Mrs. Betsy Elliott’s 4<sup>th</sup> grade scientists at St Matthews K-8 work as a team designing, building and testing a wind turbine in the 2011 National 4-H Science Experiment.

4-H National Youth Science Day is the premier national rallying event for year-round 4-H STEM programming, bringing together youth, volunteers and educators from the nation’s 111 land-grant colleges and universities and the Cooperative Extension System to simultaneously complete the National Science Experiment. During the fourth annual (2011) 4-H National Youth Science Day, new partnerships were formed with Orangeburg and Calhoun 4-H and Orangeburg-Calhoun Technical School to implement this year's experiment, “Wired for Wind.”

Twenty members of the Calhoun County 4-H Club, led by Mrs. Jacque Fogle and Mrs. Michelle Avent as well as Mrs. Betsy Elliott’s sixty-five 4<sup>th</sup> grade students at St. Matthews K-8 joined 4-H members across the nation to become scientists for the day.

In this three-part experiment, these young scientists became engaged in the engineering design process of renewable wind energy technology. Teams of youth designed and built their own wind turbines. They learned to use a multi-meter to measure output and they played with blade pitch variables to increase efficiency and output. Youth discussed energy consumption and ways we can reduce dependence on traditional energy sources.

Students and teachers noted factors that effected efficiency, impacts on the environment, and the difference between renewable and non-renewable resources. Teachers noted, in general, increased enthusiasm for hands-on science projects, curiosity and further educational connections.

Backyard chicken flocks and egg production increased in Calhoun County as 152 students at St. Matthews K-8 and 24 kindergarten students at Calhoun Academy incubated, candled and hatched dozens of eggs. Incubators were set up in four classrooms and two labs so that students and teachers could experience, monitor and nurture the beginning of life.

Fertile eggs, donated by a local producer, were taken to the classes on the day they were laid. For the next 20 days, students and teachers monitored the incubators and maintained correct temperature and humidity levels. Actual photographs of the embryo development on each day of the 21-day incubation period were provided. Candling was done at weekly intervals. Candling is done in a darkened room with the egg held before a light. The light penetrates the egg and makes it possible to observe the inside of the egg. Before the chicks were hatched, students observed blood vessels, feathers and beaks during progressive stages.

After hatching, students waited for the chicks to dry and then carefully moved them to a brooder (a cardboard box). Students fed and watered the chicks and cleaned the brooder for 3-4 days. After 3-4 days, the chicks are sent to their pre-designated home.



Members of the Calhoun County 4-H Club, Rebekah Haigler and Izabel Haigler, work as a team to design, build and test a wind turbine in the 2011 National 4-H Science Experiment.

# Peanut Production - Calhoun County

**Charles W. Davis, Jr.**  
**County Extension Agent/Row Crops**  
Calhoun, Orangeburg, and Richland Counties

Over the past nine years, peanut production in South Carolina has increased from 8,000 acres to around 105,000 acres in South Carolina making us the 5th largest peanut producing state in the country. Calhoun County peanut acres have increased from 0 to 11,578 acres in the past nine years. With the increase in acreage comes a need for grower education. The most critical part of peanut production occurs at harvest when all of a grower's care and hard work can be easily lost by making poor harvest decisions. Harvesting too early can mean lost yield potential as well as poor grades when the peanuts are sent to the buyer. Harvesting too late can mean that peanuts become over mature and are subject to coming off of the vine when harvested, greatly reducing yield. Peanut harvest timing is critical for maximizing profitability for producers.



Row Crop Extension Agent Charles Davis checks the field with farmer Dargan Culclasure to assess overall field conditions.



Charles Davis and farmer Dargan Culclasure prepare a peanut sample for a maturity check. Mobile pressure washing system is in the background.

Peanut maturity is determined by removing the outer hull layer of the peanut to expose the middle layer or mesocarp. As peanuts mature, the color of the mesocarp changes from yellow, to orange, to brown, to black. Peanuts can be manually checked by scraping the hull with a pocket knife or they can be blasted with a pressure washer to remove the outer hull. Under normal weather conditions, most varieties reach maturity at around 135 days after planting. One aspect of my work with peanut growers in the Calhoun, Orangeburg and Richland areas, where over a third of the state's peanuts are grown, is helping producers determine optimal digging dates for their fields.

Using a gasoline powered generator, a pressure washer and water tank placed in the back of his pickup truck, Davis is able to be very mobile in my ability to help producers make in-the- field maturity decisions. The ability to check the peanut samples in the field greatly improved the efficiency of my time!



Row Crop Agent Charles Davis uses the pressure washing system to remove outer peanut hull.

During the critical harvest season with this system, Davis can check samples in the field and show the producers the results, as well as discuss with them the reasons for delaying or advancing their digging operations. Weather conditions vary across his three peanut counties, so digging peanuts by the calendar date is often not a wise choice. With the ability to cover many acres in a day with the truck mounted system, he was able to save many producers from making severe financial mistakes. Conservatively, Davis estimates that I assisted producers with making digging decisions on 7000 acres of peanuts in the three county areas, easily saving them 250 lbs. of peanuts per acre, which equates to a value of \$612,500.



Maturity colors begin to show.



Showing the mesocarp or under layer of the peanut after pressure washing. Black indicates mature, brown indicates nearly mature and white is immature. Producers want at least 70% of the sample to be in the orange to black color range.

# Combining Forest Management and Forest Economic Return Through Educational Demonstrations

**Beth Richardson – Area Extension Forester**

Forestry is a very important agricultural crop to South Carolina and all of the southern states. When times are financially hard, people often turn to selling their timber for that needed income. This is why it is so important to always optimally manage the timber so that when the money is needed, the forest landowner has good quality trees to place on the market.

Without a doubt, thinning method, timing of thinning, and logging crews chosen are three of the most important parts of forest management for any landowner. By optimizing growth through thinning and always taking out the ugly and uglier trees, the very best trees are given more room to grow. By age 24, all of the Conservation Reserve Program demonstration stands were producing pole timber. Poles are valued at about double the value of saw timber.



**The pole company, Koppers marked the 25 to 50 foot poles which were the last trees to be harvested.**



**Koppers marked the poles, 35 foot to 50 foot poles are shown in the photograph. The Poles are cut last in this stand.**

During this past year, the stands were toured by two groups. The first tour was the Pee Dee Tree Farm tour. The thinning methods and number of thinning on these stands generated much discussion. Some landowners realized that they had chosen a thinning method that did not optimize their timber growth and financial return.



Tree Farmers admiring the 24 year old saw timber stand. US Tree Farmers of the year, Walt and Bill McPhail are in the foreground.

The second tour comprised of employees from the SC Forestry Commission, the State Forester, Gene Kodama, and a few landowners who were unable to attend the first tour. The conversation turned to when is a stand financially at its peak? When is a stand mature? Would it be better to wait until stumpage prices rise or would it be best to cut the stand when the timber is mature?

With the assistance of Dr. Straka, and using the forest economic calculator that he assisted in developing FORVAL

(<http://www.cfr.msstate.edu/forval/>), several different scenarios were run to determine if waiting for higher prices would be better.

The Scenarios were:

- a. clear-cut at age 24 at \$1,635.00 per acre (actual value),
- b. clear-cut age 26 at \$2,500 per acre, and
- c. clear-cut age 28 at \$3,000 per acre.

(The higher values given at age 26 and age 28 are wishful thinking timber prices.)

The answer is sell the timber stand at the earliest age when it is mature. The quicker one can turn

over a stand of timber, the higher the Internal Rate of Return and the Annual Equivalent Value. To achieve this, forest landowners should thin early and thin often to maximize the return on their investment.



SC Forestry Commission foresters and landowners.

# Master Gardener Volunteerism

**Morgan Judy – Home Horticulture Agent**



Orangeburg County Master Gardeners volunteering at the Midlands Plant and Flower Festival on 9/29/12. Front row L to R: Sue Daniels, Martha Emily Shirer, Sheryal Zissett, Kim Porter; Back row L to R: Lamar Daniels, Steve Branham and Kenneth Buck.



Orangeburg County Master Gardeners volunteering at the Orangeburg Festival of Roses in May 2012. L to R: Colleen Atkinson, Magzie Huntley and Lucia Hill.

Six years have passed since the Master Gardener program in Orangeburg County was begun in 2007 and the program is growing more and more each year. Throughout its duration participants in the program have been from Orangeburg, Calhoun, and Bamberg counties. Currently the program has trained 82 students with 53 participants who have gone on to become Certified Master Gardeners. In order to become “Certified”, one must complete 40 hours of volunteer service within the first year after completing the course. In 2012, Master Gardener volunteers reported a contribution of 630 hours in Orangeburg, Calhoun, and Bamberg counties. Volunteer projects consisted of teaching Master Gardener initial training classes, speaking to garden clubs, coordinating information booths, landscaping highway medians, and maintaining a garden at a local retirement community. These are just a few of the many projects in which the Master Gardeners have participated. Along with volunteer service, Certified Master Gardeners are encouraged to continue learning and earn 10 continuing education hours each year. In 2012, the Master Gardeners earned 127 hours of continuing education credit. These continuing education experiences help them expand their knowledge and expertise which they can then share with clients of the Clemson Extension Service. With the help of the many generous Master Gardener volunteers in Orangeburg County, the reach of the Clemson Extension Service has greatly increased. The future of the program looks bright as the program continues to train new and enthusiastic volunteers.

[www.clemson.edu/extension/county/calhoun](http://www.clemson.edu/extension/county/calhoun)

*The Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, sex, religion, national origin, disability, political beliefs, sexual orientation, marital or family status and is an equal opportunity employer.*

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## McCall Farms, Inc. Expands Production Facility

**Tony Melton**

Horticulture Agent, Tony Melton, assists and advises commercial cannery, McCall Farms. McCall's is the nation's leading canner of southern vegetables and peanuts. In addition, Melton assists the growers that are contracted through McCall Farms with growing quality crops for canning and freezing. At present McCall Farms cans approximately 4 million servings per day of more than 40 different products under Margaret Holmes, Glory Foods and Peanut Patch brands, as well as private-label and foodservice products. They also freeze approximately 1 million servings a day.

Representatives of McCall Farms, Inc. recently announced expansion and growth plans for the company's manufacturing facility in Florence County. This includes a capital investment of \$10.6 Million. This investment will add 80 jobs over the next three years, create more than 50,000 square feet of new space for production capacity, increase quality, and allow for 24-hour-a-day operation of the facility. With expansion, McCall Farms will be able to produce increased quantities of all its brands – Margaret Holmes, Glory Foods and Peanut Patch – due to more efficient production, guaranteeing customers that a greater amount of their fruits and vegetables will be available for enjoyment year-around.

McCall Farms cultivates and processes tomatoes, okra, corn, squash, beans, peas, peaches, peanuts, greens and other produce. Some are grown on its 2,000-acre farm located in Effingham, S.C., while some 10,000 additional acres are grown by farmers all over S.C. including Calhoun County.

