Having a soil sample test each year is the best investment anyone can make in their landscape. Both commercial and homeowners can benefit from yearly soil sampling. A soil sample test cost $6.00 dollars for the standard test thru the Extension Service. The analysis includes the pH of the soil and nutrient value of the soil. The analysis also includes recommendations for the crops being grown. The pH of the soil indicates the acidity or alkalinity of the soil. The pH of a soil has a profound impact on the growth habits of a crop. It can be used to limit the incidence of diseases and disorders in some specialty crops. Soil pH is also tied to nutrient availability for plant uptake. If the pH is too high, it can severely limit the uptake of some micronutrients. If the pH is too low, aluminum toxicity can become an issue. Soil samples also indicate if nutrients are present in sufficient levels. This helps to prevent excess nutrients from leaching into the surrounding ecosystem by making recommendations that take present values and crop needs into account. A soil sample acts like a road map, letting the grower know where they are and advising what is needed to achieve satisfactory result. Beautiful plants begin with a healthy soil. Balanced soil chemistry tailored to crop needs is a crucial component of soil health.

In an effort to make Clemson Extension more accessible to the citizens of Richland County, Jackie Kopack Jordan has partnered with local garden centers to provide free standing soil sample collections sites. The free standing kiosks are located at three local garden centers. Woodley’s Garden Center has a Richland County Clemson Extension soil kiosk at both their Irmo and Northeast
locations. Gardner’s Outpost is close to downtown, located at Woodrow St. and is the third location of the soil sample kiosks. Partnerships with the local garden centers are a natural choice. As garden center staff, discuss landscape options with customers it is easy for them to point out the value of a soil sample. The soil sample kiosks save their customers money in many ways. First, it helps to prevent costly landscape losses due to inadequate nutrient levels and secondly, it saves time and money by offering a convenient drop off location. This partnership allows Extension to reach a broader audience with their outreach. Conserving South Carolina’s natural resources is an important goal for Extension and making soil sample testing more available to the general public is another tool in making Richland County more sustainable.

Jackie Jordan is an Area Horticulture Agent in Richland, Fairfield and Kershaw Counties. She has job responsibilities in Consumer Horticulture (Richland) and Commercial Horticulture and Specialty Crops (Fairfield/Kershaw), where she will develop, implement and conduct programs. She will serve as the advisor to the county Master Gardener Associations and a resource to the community.

**Recognizing Businesses for Protecting Clean Water**

Mary Caflisch, Carolina Clear Agent

A new program from Carolina Clear is encouraging Richland County businesses to do their part to protect local rivers and streams. Partners for Healthy Watersheds are a recognition program for businesses, non-profits and congregations that want to help clean Richland County waterways clean. Program participants select ten actions from a check list that they will commit to maintaining at their work places. These actions range from keeping dumpsters areas litter-free to installing pet waste stations to reducing fertilizer use in their landscaping. Participants must also complete a bonus action, such as installing a rain garden to capture polluted runoff or volunteering for a litter cleanup. They also agree to train their staff on pollution prevention once per year. Participants receive a certificate and a window decal for their front door. They are also recognized in press releases and on the Carolina Clear website, www.clemson.edu/carolinacllear/rcsc. Clemson Extension provides them with training materials for their employees and resources to help them reduce pollution at their place of business.

Thus far, Partners for Healthy Watersheds has three participants. They are Forest Lake Presbyterian Church, Tree of Life Congregation and Intertape Polymer Group. All three are located within the Gills Creek Watershed, a large urban watershed within Richland County that is polluted with bacteria, mercury and sediment. These three partners are helping to make the Gills Creek Watershed cleaner for fish, wildlife and the surrendering community.
4H2O Exploring the Congaree Watershed

Leona Parr, 4-H Agent
Richland and Lexington Counties

This past June and July, 35 youth participated in the 4H2O Exploring the Congaree Watershed Camp and Exploring Lake Murray Camp. These camps allowed youth to be exposed to a variety of National Resource Activities and Water Safety and Quality programs. The camps met at the Harbison State Forest, Lake Murray Recreation Site and other various locations on the Congaree Watershed. The activities the youth participated in ranged from touring the SCE&G Power plant, hiking the boardwalk at the Congaree National Park, Hiking the Harbison State Forest, seining for fish, kayaking, and swimming on Lake Murray. This was the 16th year for the Lake Murray Program and the 5th year for the Congaree program!

Pictured are 4H'ers that participated in the 4H2O program.
Richland County Ag Science Assistants Activities

Donald McInnes and Don Carter
Agricultural Science Assistants

During the 2013–2014 fiscal year, the Richland County Extension Office Agricultural Assistants responded to over 2,400 questions submitted by phone, e-mail or in person. We provide research-based, unbiased information in the area of consumer horticulture. We received 386 questions about lawn care. 170 questions involved identifying an insect or a plant. We answered 146 questions pertaining to vegetable gardening; 100 on growing fruit and nuts. We answered 78 questions about chemicals. We also answered 244 questions on shrubs, 249 on trees, 101 on growing other plants, and a whole lot we categorize as “miscellaneous.”

We processed and sent to the Clemson campus over 1,950 soil samples for analysis—by weight that’s more than a ton! We also accepted nearly 200 samples of plants and turf for disease and abiotic problem diagnosis. We also accept other sorts of samples for analysis, including plant tissue and animal feed for nutrient analysis; animal waste; irrigation water; compost; soil for nematode assays; and plants, insects and other organisms for identification.

We also helped out at Sparkleberry Fair, manning the “Ask A Master Gardener” booth.

The diversity of questions and meeting the people that ask them is what makes our job so interesting. After answering a question of how to best plant a tree, we might be making recommendations on how to eliminate ants from someone’s kitchen, how to keep deer from eating prized roses, how to water a new lawn, which peach varieties grow best in our area, trying to identify what’s been eating the leaves of an okra plant, or discussing organic methods of weed control. We always look forward to the next question.

Expanded Food and Nutrition Education Program (EFNEP)

Linda Green
EFNEP Nutrition Educator Assistant (NEA)
Richland County

The Expanded Food and Nutrition Education Program conducts lessons to 4H age children in Richland County. The EFNEP program has made an impact on these students for better health, food safety, and fighting “BAC” against germs. Students are also made aware of the nutritional facts when choosing their own snacks. The EFNEP program encourages students to make better food choices. Students enjoy the physical activities and hands on demonstrations. These programs are given by NEAs – Nutrition Educator Assistant.

On October 16, 2014 four classes at Forest Heights Elementary watched a Sesame Street video called “Lead Away”. The Sesame Street characters had a very important message to help students avoid lead poisoning by always washing their hands. Lead can be found in toys, toy jewelry, cold water, candies imported from Mexico, sandboxes and many other sources.

Lead prevention week is October 19-25, 2014. Today childhood lead poisoning is considered the most preventable disease among children, yet an estimated 250,000 children in the U.S. have elevated blood lead levels reported by the CDC.

The students enjoyed the video that prepared them for a lead check-up. Some of the students gave their experience of having their test done. Each student was given lead information to be taken home to parents or guardians.
Commercial Horticulture
Timothy S. Davis, PhD., County Extension Agent/Commercial Horticulture Richland County

County Agent, Timothy Davis is a co-host of the Clemson Your Day “Got Bugs” which airs on the third and fifth Tuesdays each month at noon on South Carolina Public Radio. He, Eric Benson, and Charlotte Holt field call-in questions regarding insect/arthropods. A statewide media platform like this provides a significant out reach for Clemson Extension. Further, it is just plain fun.

Davis has also developed a partnership with the SC Department of Corrections and the Federal Housing Authority. He conducts regular training programs for their maintenance staff. The focus is on management issues face on their various campuses, which includes horticulture as well as pest management. For example, a spring session on vegetable production, including pest, disease management as well as best production practices was conducted. Participants actually grow a large portion of the food used in the system. A session is scheduled for November on pruning and pest management in ornamental trees and shrubs.

Davis has also built an educational program to help individuals that are taking the commercial pesticide applicators exam. He has worked with landscapers, pest control operators, and land/property managers. To date he has conducted this program for about 60 +/- people. By offering this program the success rate for these individuals has increased. This usually means a monitory raise within their organization. From my perspective it builds a relationship with applicators for continued education. With better information they will have fewer pesticide violations; they will use fewer pesticides, and will use them more effectively, lessen environmental hazards, and overall increase their bottom line.

Davis is one of the original members of what is entitled a Pioneer Community of Practice (COP) with fire ants through eXtension. He is also a member of the urban pest management COP. The fire ant COP is where many of the new innovations for eXtension programs are tested. The COP has an active Facebook page and peer reviewed website. It conducts program such as a monthly webinar series. At the recent National Association of Agriculture Agents Davis spent a significant portion of three days at the eXtension display answering and educating County Agents from across the county about fire ant management strategies. Interested persons may join the discussions on the eXtension fire ant page at http://www.extension.org/fire ants or on the fire ant Facebook page visit https://www.facebook.com/fireantinfo?ref=hl

Davis plans to conduct a program with Stan Perry on invasive species as part of an in-service training for a approximately 65 local elementary teachers. Davis has conducted farm visits on most vendors for the Sandhill Farmer’s Market and contributes regularly to their newsletter. As the mission at Sandhill REC continues to evolve he hopes to use many of the skills that he learned in Afghanistan to work with small urban, sustainable farms.

Davis also spends a significant amount of time working with one the larger Rotary Clubs in SC as they marked and improved the educational value of the walking trails here at Sandhill REC. The trails system can help the community to learn more about the values of the Sandhill REC from an ecological/biological aspect. It also provides a place to improve the physical and mental health of the community.

You may join Davis on his Facebook page entitled the County Agent Almanac where he features interesting articles and information in urban pest management.

https://www.facebook.com/CountyAgentAlmanac?ref=hl
The mission of the Clemson Extension Master Gardener Program is to select, train, and utilize knowledgeable volunteers to facilitate the educational work of the local Consumer Horticulture Agent, by delivering research-based information to citizens of the state.

Master Gardeners in Richland County contributed a total of 9,783 volunteer hours to South Carolina Master Gardener endeavors during Fiscal Year 2013-2014. The Richland County Master Gardeners drove 21,373 miles to conduct Master Gardener business. Richland County Master Gardeners delivered Clemson Extension program to over 27,573 people.

Richland County Master Gardeners provided services and programs unique to Richland County. Master Gardeners made presentations at the Richland County Public Library branches, garden clubs, the Shepard Center of Columbia, other clubs and special events. 58 presentations were given. 29 different Master Gardeners gave presentations that were attended by 751 participants. The Richland County Master Gardeners participated in several special events, such as the Midlands Plant and Flower Festival at the State Farmers’ Market, The Summer Celebration of Water at Riverfront Park and Sparkleberry Fair.

Richland County Master Gardeners also man an “Ask a Master Gardener” booth at the Sandhill Farmers Market weekly during the 29 weeks that the market is open. Over 370 people had horticulture questions answered by volunteers.

Richland County Master Gardeners contribute greatly to the success of the Annual Fall Festival at Sandhill REC. Master Gardeners managed three educational stations at the festival and 2,836 student form Pre-K thru the second grade. The children were taught about pumpkins, corn and the history of the station.

Master Gardeners have partnered with two local churches to teach residents of Transitions, a downtown facility for homeless, how to grow their own food in 19 raised garden beds.

The Historic Pond House Trail at Sandhill REC. was restored thru funding by a grant from the Richland County Conservation Commission. A kiosk and signage was installed to inform the public of the trial. Brochures of the history and identified native plants are available as well as picnic tables and benches, all to increase enjoyment of the trial.
It can be difficult to relate how forest landowners can make money from a 25 plus year crop. After a meeting, this came up for discussion with the speaker, Thomas Mede, Klausner Group. He recommended that Dr. Brooks Mendell with FORISK be contacted as a speaker for a meeting on forest finance. FORISK is a forestry consultant group that researches what forest management practices decreases rotation age and improves the rate of return on the timber investment. To achieve this meeting, the Extension Area Forester partnered with the SC Tree Farm, SC Forestry Association, and SC Forestry Commission. Through the use of direct mailings, announcements at different forestry meetings across the state, the use of websites by different state agencies and FORISK, the SCFA Journal, the meeting was advertised.

To encourage landowners to bring their spouse and children, the cost was $40.00 plus $25.00 for each additional family member. People attending for professional credits paid $80.00 per person. These fees charged did not cover 50% of the cost.

Funding had to be raised to offset the true cost so that it would be an affordable meeting for forest landowners. Three grants were applied for. The SC Forestry Commission had an initiative called “20X15”, which is to increase forestry to a $20,000,000,000 industry by the year 2015. One component of the initiative was landowner education. Erog, the SCFC granted funds to pay for 98 books for the meeting at a cost of $2,450.00

Clemson Extension offered a one time for which $1,031.00 was applied for to offset cost of additional mailings across SC and more books. A third grant was applied for through the Plum Creek Foundation in Oregon for $3,000.00. This grant was to directly offset the cost for individuals to attend the meeting. 86 people pre-registered for the Forest Finance meeting. This was the largest one day seminar FORISK had every undertaken, both foresters and forest landowners learned more about how forest finance works.
With 64 members representing the 5 clubs, Richland County Family and Community Leaders are always up to great projects and activities. The eight lessons used from the Education Lessons furnished by SCFCL Education Committee were: “How to make New from Old”, “Chair Exercises for Seniors”, “Asbestos and Lead”, “Gluten Intolerance”, “Southern Barbecue”, “Environmental Safety and Hazards”, “Eating the Rainbow”, “Foods for Christmas”, and “A Homemade Christmas”. These Educational Lessons are knowledgeable and keep members up-to-date with the latest trends and information.

The spring Council Meeting, was held jointly with Lexington County and a “Show and Tell” of Pam Hanflands’ trip to Chennai, India was shared.

One of the favorite activities of the year is to host a Friday Lunch for the international students at USC for over 30 years. Each club prepares their favorite sandwiches and cookies to serve to approximately 200 students from countries all around the world.

Richland County FCL Monthly activity information reports:
- making of toiletries for the homeless
- paper products for Sister Care
- State Fair contest winners for baking
- Salvation Army teddy bears custom dressed for children at Christmas
- Campbell soup labels for school sports equipment
- pop tops to Ronald McDonald House
- box tops for Education
- toilet paper rolls for Riverbanks Zoo
- FCL Yards and Neighborhoods project and lots, lots more.

Pat Breznay, County President is also the National Volunteer Outreach Network (NVON) Vice President and Chair for their “Water Around the World” International Project. She has been busy promoting this project along with the 7 other NVON member states and coordinating this activity around the world. She recently presented her project to attendees at the NVON Conference in Indianapolis, Indiana where she announced that over $66,000.00 had been collected since January 1, 2013 to purchase water filters to be sent to less fortunate countries so that children and families might have clean drinking water.
Farmers Get Farm Bill Update

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

With the passage of the 2014 Farm Bill comes many changes to the government side of agricultural production. Cotton is no longer a program crop, crop yield records need to be updated, base acre assignments need to be reallocated, and program coverage needs to be chosen. The 2014 Farm bill is over 900 pages in length and is without a doubt one of the most complex Farm Bills ever written. In an effort to help farmers begin to understand the complexities of the Farm Bill and to be aware of the decisions that will have to be made, Clemson Extension partnered with UDGA Farm Service Agency and South Carolina State University to present a series of 6 educational meetings across the state. The Calhoun/Richland Row Crop Extension Agent coordinated the first meeting with was held on October 28th in St. Matthews and drew farmers from Calhoun, Richland, Orangeburg, Clarendon, Sumter, and Dorchester counties. Over 170 farmers attended the three hour meeting and received information on signup deadlines, base acre reallocations, how to make yield updates, the Cotton Transition Payment (CTAP), and the three coverage programs outlined in the Farm bill. Clemson Row Crop Agents will be trained on the Texas A&M decision making program in December and will available to assist farmers with determining which of the three coverage programs best suits their farming operations. Farmers will until March 31, 2015 to make their final decisions which will be locked in for the next 5 years.

www.clemson.edu/extension/county/richland

Livestock and Forages in Richland County

Travis Mitchell, Area Livestock and Forages Agent
Richland, Saluda, and Lexington Counties

Clemson Extension continues to deliver programs on livestock and forage systems through the Richland County Cattlemen’s Association. This active organization is an affiliate member of the S.C. Cattlemen’s Association and offers many educational opportunities to people interested in beef cattle and forage production. Program topics include pasture management, hay production, and soil health. We also deliver programs covering selection, production, and marketing of beef cattle herds. Clemson Extension also supports the citizens of Richland County by use of an Area Livestock and Forages Agent to assist producers in livestock and forage production. This agent aids with weed identification and fertilization requirements for hay fields and pastures. He also helps livestock producers with management decisions that influence the overall success of their herds.

We are seeing record high prices in the beef cattle industry and it is extremely important that we make the right investments in our pastures and cowherds during these good times to keep us sustainable in the future.

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.
Clemson Cooperative Extension Service Celebrates 100 Years!

2014 marked the 100th anniversary of the Smith-Lever Act, which formalized the Cooperative Extension Service, a state-by-state national network of educators who extend university-based knowledge to the people.

The “Clemson Model” of Extension became the basis for the Smith-Lever Act, authored by Georgia Senator Michael Hoke Smith and South Carolina Representative A. Frank Lever. Lever, a Clemson life trustee, was devoted to the needs of agriculture and farming interests across South Carolina and the United States. He chaired the House Agriculture Committee from 1910-1919, served as a member of the Federal Farm Board (1919-1922), organized the First Carolina Joint Stock Land Bank (1922-1929) and was strongly affiliated with the Farm Credit Administration (1933-1940).

For 100 years, the Smith-Lever Act has stimulated innovation research and vital educational programs for youth and adults through progressive information delivery systems that improved lives and shaped a nation.

Clemson Extension Service: How Did It All Begin?

The legislation for which he is best remembered is the Smith-Lever Act of 1914. This established extension services at state agricultural colleges to aid the farmer with new techniques of farming. The Lever Act also helped transform the face of agriculture from 19th century modes to more modern and scientific 20th century modes of farming.

Today, the Clemson University Extension Service is proud to deliver research-based information in agriculture, natural resources, food safety and nutrition, economic and community development, and 4-H youth development in 46 counties in the state.