Clemson University Cooperative Extension Service

Annual Report to the People

November 2016 Charleston 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.

Charleston County Clemson Extension Service

The Clemson University Extension Service is proud to deliver research-based information in the fields of agriculture, forestry & natural resources, economic and community development, food safety and nutrition, 4-H and consumer horticulture in Charleston County. The Charleston County Extension Office is home to seven County Extension Agents and two additional agents based in adjacent counties. Our Extension Agents work

to address the diverse needs of our community engaging stakeholder groups ranging from farmers to home gardeners, K-12 youth to university students, land managers to landscape professionals and During engineers. the 2015 reporting year, the Charleston County office received 2,019 soil samples and agents, office administration and Master the Gardener Office fielded thousands of phone calls, emails and in-office visits



Come visit us on the 2nd floor of 259 Meeting Street in downtown Charleston! Our office hours are Monday to Friday 8:00AM to 4:30PM.

Community Pride Inc. of Charleston

In Charleston County, the Adopt-A-Highway litter abatement program is sponsored by Community Pride, Inc., under the auspices of Clemson Extension. In 2015 across Charleston County, 4 major cleanups were conducted in February, May, September and November. Approximately 206 groups participated in the program accounting for 2,898 individual volunteers.

An estimated 64,442 pounds or 32 tons of litter was removed from 412 miles of state maintained roadsides. Volunteers donated 10,970 hours of time to make their communities more aesthetically pleasing. Based on the 2014 estimated dollar value of volunteer time at \$20.56 per hour, this provided a staggering savings of \$225,543 to the local tax payers. The Charleston County Adopt-A-Highway program is coordinated by Community and Economic Development Agent, Angela Crouch.



Photo: Medical University of South Carolina Pediatrics Connecting Local Youth to 4-H

Youth can get involved in 4-H programs year round, through community clubs, school programs or as a family. 4-H is working hard to promote local and state 4-H activities in the Charleston region and to encourage youth and family participation.

In schools, 4-H staff utilized the Disney Conservation Funds Connection Youth To Nature 4-H grant to visit 500 area 7th grade students during the 2015-2016 school year. This was many students first exposure to 4-H.

For a broad reach, 4-H worked with the 2015 Coastal Carolina Fair to display youth exhibits, 4-H information, and to host 4-H competitions and activities. 4-H staff and volunteers attended four additional community events and festivals including the Charleston STEM Festival. All total, over 230,000 individuals had the opportunity to interact with 4-H at the Coastal Carolina Fair and these additional community events.

Last but not least, 4-H and the Natural Resources Extension Team worked together to host a 4-H2O water exploration camp during the summer. Over 40 youth attended the camps and were exposed to 4-H as well as the natural world around them, with emphasis on stewardship of our shared water resources.



Charleston STEM Festival



4-H20 Summer Camp

2015 Floods

South Carolina experienced historic rains and flooding during October of 2015. As a result, many Lowcountry farmers lost most, if not all of their fall crops. Of the crops that did survive, farmers were not allowed to sell any crops due to food safety concerns. A conservative estimate of 400 million dollars' worth of crop loss was reported for the entire state of South Carolina by the SC Department of Agriculture. Clemson Extension responded by taking damage assessments in the weeks following the floods and documenting crop and financial losses. Clemson Extension urged lawmakers and policy makers to help secure funding to help out farmers. When the SC Department of Agriculture announced that 40 million dollars (FarmAid) was available to SC growers, Clemson Extension held a series of statewide workshops on how to apply for funding. A local meeting was held in Charleston where 25 Lowcountry growers attended. Once the meeting was over, local agents assisted farmers on-farm and in the Charleston County Office for weeks to help farmers correctly fill out their paperwork. As a result, Charleston County farmers re-cooped \$521,000 in relief money; accounting for 10% of the estimated loss in Charleston County. To date, no local farms have gone out of business due to the October floods.



Consumer Urban Horticulture Education School Gardening for South Carolina Educators

School Gardening for South Carolina Educators is a training and garden support program designed to help youth and their teachers grow and consume fresh, healthy vegetables on school grounds. Comprised of an interdisciplinary Extension team of horticulture and 4-H extension agents and Master Gardener volunteers, the program works in partnership with the The College of Charleston Farm to School Initiative.

Since 2013, the program, consisting of a 5-week online training course, hands-on workshops and technical gardening support, has trained over 150 teachers and installed over 60 school gardens in Charleston, Berkeley and Dorchester counties.

Hands-On Teacher Workshop focused on School Gardening for SC Educators This summer, thirteen science teachers from the Charleston County School District STEM team participated in a garden-based, hands-on professional development workshop at the Clemson Coastal Research and Education Center. Along with fellow extension agents and Master Gardeners we led the educators on a behind the scenes farm tour, demonstrated harvesting and produce washing techniques and held a plant propagation class using herbs.



Photos: Area students harvest sweet

potatoes from their school garden. Extension Agent, Amy Dabbs, works with Charleston County School District employees at the School Gardening Workshop for SC Educators.



Since January 2016, over 13, 486 Charleston area residents have received gardening information from Clemson Extension Master Gardeners. The 2016-2017 Master Gardener Training Course has 29 students enrolled this year who will volunteer in the Tri-County area.

Since January 2016, the Charleston County Master Gardeners have traveled over 95,660 miles to contribute over 13,000 hours to community service activities including:

- Staffing the Master Gardener Office at the Charleston County Clemson Extension Office.
- Participating in community outreach events including area farmers markets, Autumn on the Ashley, Charleston Horticulture Society Plantasia, Shem Dig Celebration, The Honey & Bee Expo and more.



Through an innovative public-private partnership, Clemson Extension Master Gardeners have found a new office location in the Westrock development, Summers Corner. A "community in a garden," Summers Corner is the only housing development in the state to adopt the Clemson Extension Carolina Yards program, incorporating environmentally friendly land practices into the planned landscape as well as HOA documents for residents. The new site allows Master Gardeners to serve members of the entire community throughout Dorchester County, providing gardening advice and collecting soil samples from a lovely garden setting. In the spring of 2016, the Master Gardeners installed a pollinator garden featuring native plants. In June, a kitchen garden with herbs and vegetables was designed and installed. On April 23, 2016 Team "Making It Grow" held an unplugged show onsite that was well attended. Throughout the year, the Tri County Master Gardeners have participated in the on-site farmers market and taught gardening classes at Summers Corner.

Forestry Economic Impact and the Tri-County Forestry Association

The forest industry has a total economic impact of \$18.6 billion annually and exports total \$1.5 billion. Forestry is number one in the state's manufacturing industry in jobs (90,320) and payroll (\$4.5 billion). Timber is the number one harvested commodity crop at \$759 million annually and the number one export by volume out of the Charleston port. In South Carolina, forested land accounts for 68% of the total land area which equates to 13.1 million acres of forest land; 88% of our forest are privately owned.

The Tri-County Forestry Association is a group consisting of private landowners, consultants, non-profits, government agencies and other individuals that have interest in our natural resources. The group meets quarterly and provides educational content on many subjects related to forestry, wildlife and the environment. This year topics ranged from timber markets, growing season burns, regional conservation plans, deer status and legislative changes that affect deer management were presented at the meetings. The Association covers Berkeley, Charleston and Dorchester counties and is over 100 members strong. To join the Association contact Derrick Phinney at Clemson Extension. <u>dphinne@clemson.edu</u> or 843-563-0135 x3.



Photo: Fall Forestry Association Meeting discussing impacts of forestry industry on the local economy.

Collaborative Partnerships for Healthy Waterways

Clemson's Carolina Clear program organized and administers the Ashley Cooper Stormwater Education Consortium (ACSEC). The ACSEC regional partnership includes Berkeley, Charleston and Dorchester Counties, as well as the City of Charleston, City of Folly Beach, City of Goose Creek, City of Hanahan, City of Isle of Palms, Town of Lincolnville, City of North Charleston, Town of James Island, Town of Mount Pleasant, Town of Sullivan's Island, and the Town of Summerville. The communities, working alongside Clemson Extension Services Carolina Clear program and more than twenty regional education providers, are working together to educate and involve Tri-County residents in protecting water quality. These activities also help communities meet NPDES (National Pollutant Discharge Elimination System) Phase II permit requirements for public education and public involvement.

ACSEC programming addresses pollution management through work with multiple audiences in our community, including residents and home gardeners, commercial restaurant owners, pond management and landscape professionals, youth and K-12 educators, and more.

Photos: (From Top) Participants in the Rain Garden for Professionals Training in Mount Pleasant; volunteers working the 2016 ACSEC rain barrel sale; participants take a closer look at soils as part of the Master Pond Manager course; participants install a "shorescape."







Learn more about Master Pond Manager! clemson.edu/watershed

The ACSEC 2015-2016 reporting year was a year of diverse opportunities in programming and collaboration within the Lowcountry community. A few programs of note included:

- The "Carolina Rain Garden Initiative" was launched to increase the number of rain gardens installed both locally and throughout the state of South Carolina. Rain gardens can assist residents with erosion and flooding issues in the home landscape, provide habitat for pollinators, add beauty to the community and help to protect downstream water quality. Diverse rain garden resources and tools were developed as part of the Carolina Rain Garden Initiative. The Virtual Rain Garden provides a step-by-step video tutorial for rain garden design and installation. The map of demonstration rain gardens provides information on nearby educational rain gardens in public spaces. And a list of rain garden workshops that provide participants hands-on learning opportunities. One such workshop included the fall 2015 offering of the "Rain Garden Workshop for Professionals" hosted at a Town of Mount Pleasant fire station where 15 participants installed a rain garden. Learn more about the Carolina Rain Garden Initiative at clemson.edu/raingarden
- In October 2015, Clemson's Carolina Clear program partnered with the SC Department of Natural Resources and the ACE Basin NERR Coastal Training Program to host the "Shorescaping Workshop" for pond owners in the Tri-County. There were 20 participants who took part in the half-day training on the design, installation and maintenance of native shoreline plantings for pond management. The best part of the day- a hands-on chance to install a shoreline planting that will ultimately be a demonstration site for the ACSEC.
- The 4th annual ACSEC rain barrel sale occurred in April-June 2015. With pickup sites in Charleston, Summerville and Goose Creek, the ACSEC sold more than 300 rain barrels to residents from across the Tri-County region. All rain barrels were sold at a near 50% reduced price to the general public in an effort to encourage water resource conservation and stewardship.
- Trainings for commercial audiences expanded with opportunities in training pesticide applicators, landscapers, and restaurant managers and staff through multiple one-on-one restaurant trainings through the Carolina Clear Watershed

Program and a pesticide applicator training offered in March 2015.

- Statewide programs first hosted in the ACSEC continue to make an impact across the southeast region. The Master Pond Manager and Post-Construction BMP Inspector Certification training, hybrid online and field-based training focused on water resource best management practices, have combined trained nearly 300 residential and commercial participants in stormwater pond, recreational pond, and other stormwater best management practice maintenance.
- Check us out on TV! The ACSEC launched a mass media blitz in Berkeley, Charleston and Dorchester Counties with a dancing, talking raindrop providing tips to pond owners on best practices for maintenance of stormwater ponds.

The ACSEC thanks all of our Lowcountry residents for doing their part to protect our water resources for today and future generations. To find out more, visit www.ashleycooper.org.





Learn more about rain gardens! clemson.edu/raingarden

Food Safety & Nutrition Program

Access to safe and healthy food affects everyone throughout the human life cycle. Food safety and nutrition related programs were presented to various groups in Charleston County. The variety of programs helps to address needs and interests of a diverse community.

Nutrition was the topic of lessons taught to youth attending three sessions of summer camp held at the Bishop Jerden Conference Center in McClellanville. Groups participated in age appropriate activities and discussions about sustainable eating, health or increasing intake of fruits and vegetables. The camp provided ingredients for each group to prepare or sample a healthy recipe.

4-H Food and Nutrition Contests are held annually as a part of the Coastal Carolina Fair. Youth may compete in Ways With Eggs, Kooky Cookie, Rice N Easy, Junior and Senior Pizza, Muffin Mania or Team Chili Contests. These contests have taken place during the fair for decades. Today's 4-H program focuses on Healthy Lifestyles so youth are encouraged to modify their selected recipes in order to make them healthier. Those who do so are awarded a Healthy Lifestyles prize. The Exchange Club of Charleston provides prizes for all of the contest winners.

The ServSafe® Manager Certification course is taught by Clemson Extension Food Safety Team Members who are certified as instructors and course proctors. This course helps retail establishments meet the requirement to have one certified food protection manager on duty during hours of operation.

A Tomato Canning Class was held at the request of the John's Island Rural Housing Authority. Tomatoes and jars were donated for use by the participants. The participants learned to preserve a crushed tomato recipe. Each participants received a jar of tomatoes to use at home.

The Food Safety Program is also partnering with the Trident Area Agencies on Aging by providing quarterly nutrition education programs for Senior Citizens Centers located in Awendaw and South Santee. Lessons have included "Food Safety for Seniors" and "A Few Simple Things Seniors Can Do To Improve Health."

Meet Your New Food Safety & Nutrition Agent!



Introducing the new Food Safety and Nutrition Agent for Charleston, Beaufort and Georgetown Counties! Chad Carter has a broad background in the culinary arts, food science and product development. After receiving his bachelor's degree in psychology with a minor in biology from Western Carolina University, Chad studied the behavior of ants at the Rocky Mountain Biological Laboratory in Colorado. He then attended culinary school at Johnson and Wales University in Charleston, receiving his associate's degree in culinary arts. Chad returned to the Rocky Mountain Biological Lab to lead their dining program for six summer seasons, feeding researchers from all over the world. Chad has been working in the food service industry for nearly twenty years in a wide variety of operations, from high volume ski resort restaurants to fine dining. Chad attended Clemson University to complete a master's degree in food science. While at Clemson, Chad traveled the state delivering healthy eating and cooking skills demonstrations with the "Cooking with a Chef" program. Chad's interests are in the foodways of the South Carolina Lowcountry with a focus on recipe development, food production and food safety. He believes that teaching people cooking skills empowers them to make healthier food choices and improve their quality of life.



Charleston County Extension Office 259 Meeting Street, 2nd Floor Charleston, SC 29401 Nonprofit Organization U.S. Postage PAID Permit 10

www.clemson.edu/extension/county/charleston

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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