

# CLEMSON® PSA IMPACT REPORT - GREENVILLE COUNTY

All data reported below on Clemson University Cooperative Extension & PSA operations in Greenville County was collected from unit University reports and reporting systems for FY 2020-21.



All Clemson Public Service and Agriculture Division units maintained operations and service to the state of South Carolina during COVID-19. Where necessary, individual units implemented modified operation plans for employees to work remotely. Unit employees who could not complete their job duties remotely operated under additional risk mitigation plans to insure all PSA programs continued to protect the environment, human and animal health, and facilitate agricultural and business-related operations.

## COOPERATIVE EXTENSION

[www.clemson.edu/Greenville](http://www.clemson.edu/Greenville)

County Coordinator: Patricia Whitener  
301 University Ridge, Suite 4300, Greenville

**Program Participation\*** (an individual participating in multiple sessions of programs or different programs may be counted more than once in the total number listed below)

- 792** educational programs and workshops conducted using direct methods
- 9,167** people participating in educational programs (reached through direct methods with race, gender, and ethnicity known)
- 6,669** reporting increase in knowledge (from educational programs)
- 3,999** reporting use of information received for reported programs
- 11,105** other educational contacts (individuals receiving information by phone, office, and/or farm visits)
- 13** participants in Extension New & Beginning Farmer Program from 2017-20
- 154** media publications produced
- 10,354** contacts made through media publications

### Volunteer Information

- 85** Master Gardener volunteers
- 3,388** Master Gardener volunteer hours
- 206** Rural Health & Nutrition volunteers
- 2,714** Rural Health & Nutrition volunteer hours
- 24** 4-H volunteers (4-H information taken from ES237 federal report September 2020-August 2021)
- 144** 4-H volunteer hours (estimated at 6 hours per volunteer)
- \$159,085.62** Total value of volunteer hours worked (Volunteer value in South Carolina estimated at \$25.47 per hour. Source: Independent Sector)

**Programs:** Chronic Disease Prevention and Self-Management Programs (HED, DPP, HMP, MMB, WalkSC, referrals); Water Quality and Quantity; Management and Sustainability of Forest Resources on All Forest Lands; Urban Tree/Urban Forestry Issues; 4-H Development (Technology and Engineering; Environmental Education/Earth Sciences; Ag-in-the-Classroom; Plant Science; Leadership and Personal Development ; Foods and Nutrition; General Adult 4-H Volunteerism, not included under subject matter); Master Gardener Education and Impact; School and Community Gardening; Animal and Forage Production Systems

### PSA Expenditures and Employees

PSA Employees in Greenville County: 23  
(may include part-time personnel or split with other counties)

Federal Expenditures: .....	\$134,518.68
Other (Grants, Contracts, County Funds): .....	\$278,785.35
State Expenditures: .....	\$692,886.47
Total (includes capital, operating & personnel): .....	\$1,106,190.50

### Clemson & College of Agriculture, Forestry and Life Sciences

(CAFLS) Students & Alumni in Greenville County:

Enrolled undergraduates.....	Clemson: 2548	CAFLS: 210
Enrolled graduate students .....	Clemson: 576	CAFLS: 18
Alumni .....	Clemson: 20,186	CAFLS: 931

## LIVESTOCK POULTRY HEALTH

[www.clemson.edu/lph](http://www.clemson.edu/lph)

Clemson Livestock Poultry Health (LPH) serves as South Carolina's animal health authority, state meat and poultry inspection department, and the state's veterinary diagnostic center. LPH has a major role in protecting the health of food animals (beef, poultry, swine, etc.) and other livestock and preserves access to domestic and export markets. These critical services significantly impact economic activity in the state's agribusiness industry. Livestock, poultry, and products represent 64% of agricultural products sold in South Carolina. The state ranks 9<sup>th</sup> in the nation in sales of poultry and eggs, with a market value of \$1.6 billion (USDA 2017 Census).

### LPH Certificates of Veterinary Inspections (CVI\*): 1,616

Livestock: 314      Equine: 265      Poultry: 21,652      Other: 4,196  
Total animals included on all CVIs in county: 26,427

\*CVI are required for interstate movement of animals across state borders. Livestock Poultry Health has authority over processing and monitoring CVIs to ensure they meet all requirements in the law or regulation. One certificate may include more than one animal.

### LPH markets monitored:

Exposition or fair: 1      Livestock dealer: 3  
Miscellaneous vendor: 4      Total: 8

### LPH SC Meat-Poultry inspection department facilities inspected:

Slaughter & processing: 1      Processing only: 3      Total state: 4

**Emergency Preparedness, Response, & Recovery:** LPH is the primary agency for Emergency Support Function 17 (ESF-17) of the State Emergency Operations Plan that involves animal and agriculture emergency response. LPH partners with several support agencies to help the State Emergency Management Division and the Governor coordinate statewide resources needed to support South Carolina citizens in all hazards and disasters. LPH, Regulatory and Extension personnel manage the ESF-17 desk at the Emergency Operations Center.

LPH participated in state COVID-19 operations with the South Carolina Emergency Programs Division (SCEMP). COVID-19 impacted packing plant operations and affected plant and other food operations. Producers and the public found delays of up to six months to process their animals. COVID-19 also affected some companion and zoo animals. LPH participated in national public health agency calls, and initially reviewed approval of testing domestic and zoo animals prior to commercial tests becoming available.

## REGULATORY SERVICES

[www.clemson.edu/regulatory](http://www.clemson.edu/regulatory)

The responsibilities of Regulatory Services include the eradication and prevention of plant pests; regulation of pesticides and fertilizers; seed, turfgrass and organic certification; and inspection of shipment and sale of trees, plants and shrubs. (Source: South Carolina Code of Laws Section 46-9-10)

### PESTICIDE REGULATION

553 Licenses      165 Inspections  
365 Pesticide Sample Analysis      12 New Dealers

### AGRICULTURAL TESTING & ANALYSIS

1,767 Soil Samples  
2 Water Samples

### PLANT INDUSTRY

177 Grower Nursery Inspections      6 Dealer Nursery Inspections  
21 Nursery Compliance Agreements      32 Fertilizer Inspections

### DIAGNOSTIC CLINIC

45 Plant & Turf Problem Diagnosis      5 Insect Identification  
14 Nematode Assay      4 Molecular Plant Pathogen Detection  
1 Commercial Turfgrass Clinic

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County demographic data is from USDA NASS 2017 Census of Agriculture, unless otherwise reported. To access weblinks to stories, click on bold purple text or use QR code (patterned square). QR code requires reader app or iPhone camera.



## PRODUCER PROFILE

Total Producers: 1,689  
Male: 1,027 Female: 662

### Age

under 35 years : 131  
between 35-64 years: 876  
over 65 or 65 years: 682

### Race

American Indian/Alaska Native.....3  
Asian .....5  
Black or African American .....47  
Native Hawaiian/Pacific Islander .....8  
White.....1,613  
More than one race.....13

### Other characteristics

Hispanic, Latino, Spanish origin .....22  
With military service ..... 245  
New and beginning farmers ..... 560

## % Share of sales by type

Crops.....76  
Livestock, Poultry & Products .....24

## Greenville County Farms

Have internet..... 74%  
Sell direct to consumers..... 10%  
Family farms..... 96%  
Hiring farm labor ..... 17%

## Land in Farms by Use

Cropland .....29%  
Pastureland .....29%  
Woodland .....36%  
Other ..... 6%

## Farmland Use Practices

No till..... 6%  
Reduce till ..... 2%  
Intensive till ..... 7%  
Cover Crop ..... 8%  
Acres irrigated ..... 1,510

## PIEDMONT RESEARCH & EDUCATION CENTER (REC)

<https://www.clemson.edu/cafls/research/piedmont/>  
101 Ag Service Center, Old Cherry Road, Clemson, S.C.

**Director:** Dr. Matt Hersom

The Piedmont REC consists of all research farms located on and around Clemson University's main campus, including: LaMaster Dairy Cattle Center; Morgan Poultry Center; Musser Fruit Research Center; Simpson Station; Simpson Beef Cattle Farm; Small Ruminant Unit; Aquaculture Center; and Organic Research Center.

**Research Areas:** Dairy & beef cattle; Poultry; Small ruminants; Aquaculture; Fruit crops; Row crops; Forage crops; Vegetable crops and Organic production.

**FY2020-21 Sponsored Research Awards to REC and CAFLS Faculty assigned to REC:** \$7,308,018.50

## 4-H YOUTH DEVELOPMENT

**2,098** youth from Greenville county participated in South Carolina 4-H through a variety of activities and programs. During COVID, 4-H staff transformed camps, clubs, school enrichment, and short-term special interest programs into remote learning programs which allowed families and youth to learn together. In-person 4-H programming became available statewide in June 2021.

*4-H information taken from ES237 federal report September 2020-August 2021.*

Clemson University Cooperative Extension 4-H Youth Development uses a learn-by-doing approach to help youth gain the knowledge and skills to be responsible, productive, and contributing members of society. This mission is accomplished by creating safe and inclusive learning environments, the involvement of caring adults, and utilizing the expertise and resources of Clemson University and the nationwide land-grant university system.



## Researchers Explore Options to Control Bacterial Spot in Peaches

Clemson researchers Dr. Hehe Wang, Dr. Guido Schnabel, and Dr. Jose Payero are working with faculty researchers from the University of Georgia, the University of Florida, the University of Central Florida and the USDA's Agricultural Research Service to explore alternatives to control the bacterium *Xanthomonas arboricola* pv. *pruni* (Xap) and new strains that are resistant to antibiotics and are tolerant to copper sprays currently used to manage bacterial spot in South Carolina and Georgia **peach** orchards. The team received a \$454,996 grant from the United States Department of Agriculture National Institute of Food and Agriculture (USDA-NIFA) and will determine how current spray programs affect antibiotic resistance and copper-tolerance in Xap and how the new bacteria strains impact efficacy of current spray programs.



## Rural Health and Nutrition Extension Programs

290 individuals in Greenville county enrolled in educational sessions focused on nutrition, physical activity and prevention and self-management of diabetes and hypertension offered by the **Extension Rural Health and Nutrition** team. 44.3% reported using practices learned. 36.2% reported increased physical activity and 19.6% reporting improvement in diet quality. Participants reported improvements in both blood sugar and blood pressure control and many reported weight loss. The team also delivered the USDA Expanded Food and Nutrition Education Program (EFNEP). EFNEP taught 4 adult and 6 youth participants about diet quality, physical activity, and food resource management for food security. 100% of adult and youth participants reported improvements in diet quality. 100% of adults reported improved resource management.

## Clemson Researchers Work to Improve Soil Health

**Healthy soil** is an essential component for clean air and water, a profitable agriculture industry, and healthy forests. Scientists at the Clemson Research and Education Centers (RECs) located in the distinct soil and climate regions of South Carolina are exploring ways to minimize the use of synthetic fertilizer and improve soil health and fertility. Researchers are experimenting with a range of sustainable land-management practices to reduce environmental impacts including composting, conservation- tilling, cover- cropping, and rotational grazing.



## Using Robotics to Improve Forage and Soil Management

Clemson Agricultural Mechanization and Business faculty Dr. Bulent Koc and Dr. John Chastain are working with Dr. Matias Aguerre from Animal and Veterinary Science and Extension Livestock and Forages team leader Dr. Matt Burns to create robotic measurement systems for **precision pasture management**. Using \$423,263 received from USDA's National Institute for Food and Agriculture, the team will design and use robotics (unmanned aerial vehicles and ground rovers) to assess pasture quality and yield predictions as part of a 3-year study to determine if use of robotic systems can ensure high-quality forage for livestock and better management of soil.

