

# Drought Mitigation Practices in Production Agriculture in the Southeast

Gordon Mikell

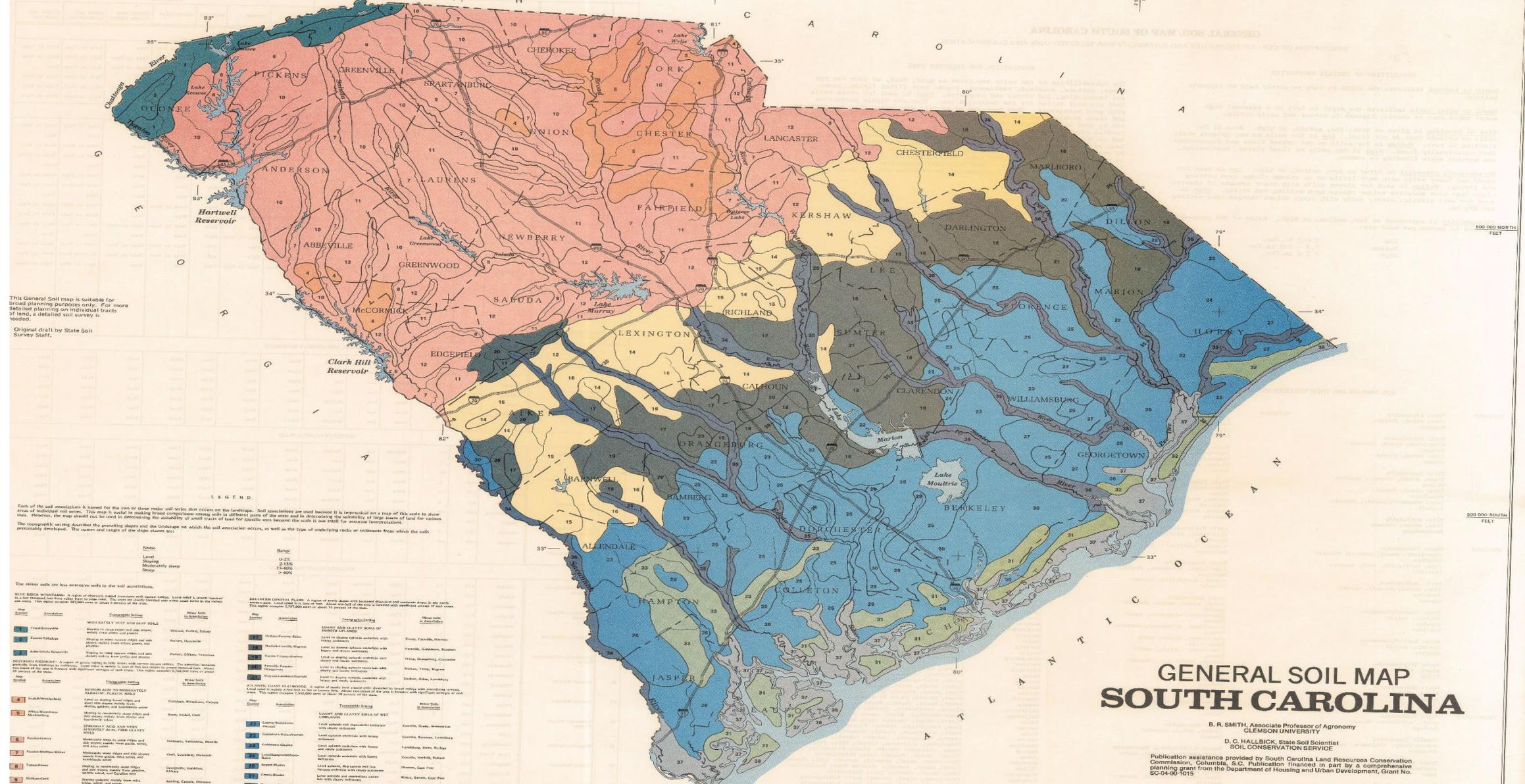
Conservation Agronomist USDA/NRCS

Certified Crop Advisor



**“Helping People Help the Land”**





This General Soil map is suitable for broad planning purposes only. For more detailed planning on individual tracts of land, a detailed soil survey is needed.  
Original draft by State Soil Survey Staff.

Each of the soil associations is named for the town or stream which it covers on the landscape. Soil associations are used because it is impractical on a map of this scale to show areas of individual soil series. This map is useful in making broad comparisons among soils in different parts of the state and in determining the suitability of large tracts of land for various uses. However, the map should not be used in determining the suitability of land for specific uses because the scale is too small for accurate interpretation.  
The geographic setting describes the prevailing slopes and the landscape on which the soil associations occur, as well as the type of underlying rocks or sediments from which the soils presumably developed. The names and ranges of the slope classes are:

LEGEND

Slope	Range
Level	0-2%
Slight	2-10%
Moderately steep	10-25%
Steep	>25%

The major soils are less extensive soils in the soil associations.

WET FLATLANDS: A group of alluvial, mixed association with heavy soils. Level soil is covered by a thin layer of water during the rainy season. The water is about 10 inches deep in the rainy season. The water is about 10 inches deep in the rainy season. The water is about 10 inches deep in the rainy season.

Soil	Association	Topographic Setting	Major Soils in Association
1	Freeport	Wetlands in low areas with high water table	Freeport, Sumner, Saluda
2	Forestville	Wetlands in low areas with high water table	Forestville, Sumner, Saluda
3	Adrian	Wetlands in low areas with high water table	Adrian, Sumner, Saluda

WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
4	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
5	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
6	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS

Soil	Association	Topographic Setting	Major Soils in Association
7	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
8	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
9	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
10	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
11	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
12	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
13	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
14	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
15	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
16	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
17	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
18	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
19	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
20	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
21	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
22	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
23	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
24	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
25	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
26	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
27	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
28	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
29	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
30	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

WET SANDY SOILS OF WET FLATLANDS (continued)

Soil	Association	Topographic Setting	Major Soils in Association
31	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
32	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda
33	Wetlands	Wetlands in low areas with high water table	Wetlands, Sumner, Saluda

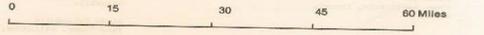
# GENERAL SOIL MAP SOUTH CAROLINA

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SOIL CONSERVATION SERVICE

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SCALE 1:750,000

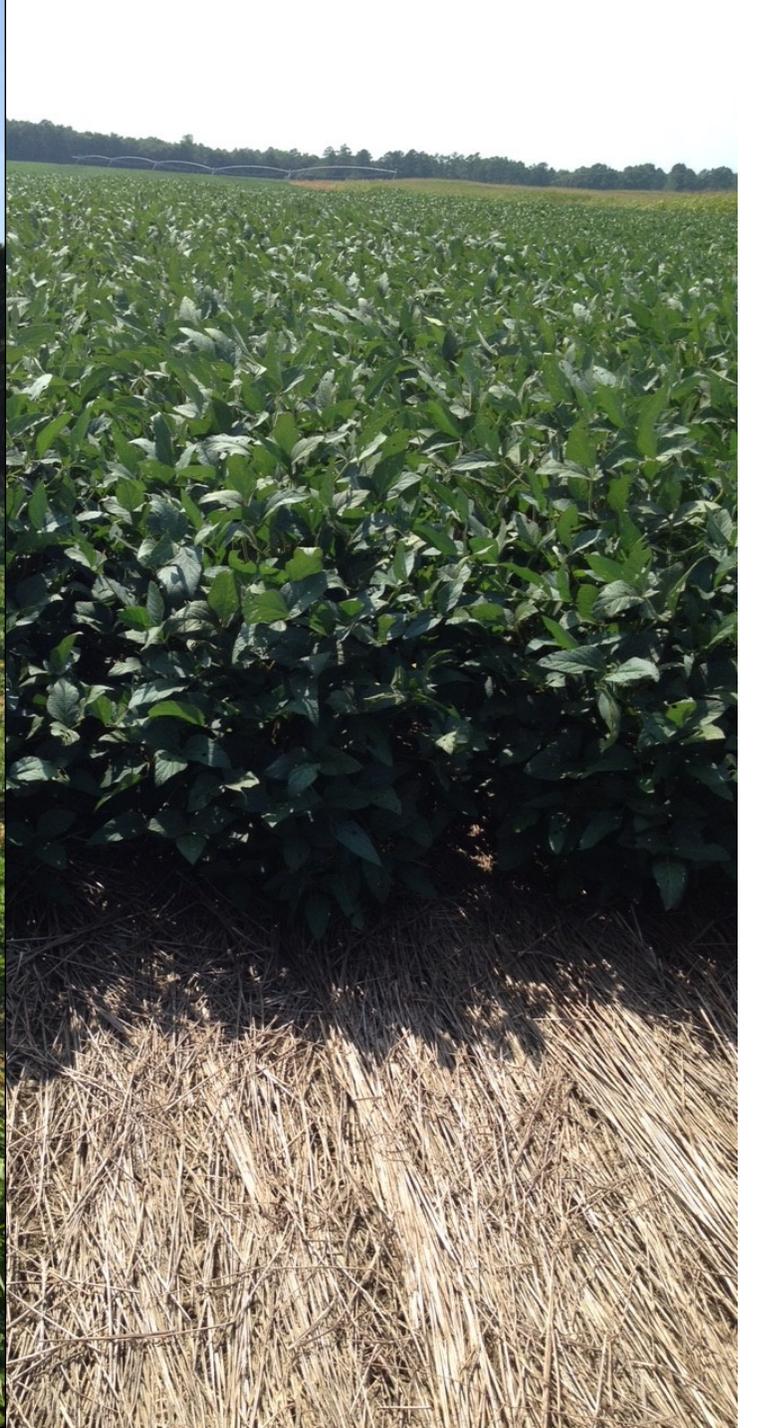


Base compiled from South Carolina State Base Map (Lambert Conformal Projection) and grid ticks from South Carolina State Plane Coordinate System North and South Zone by Soil Conservation Service, U.S. Department of Agriculture.

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# How is SC USDA/NRCS addressing drought and water resource concerns ?

**Technical Assistance:** soil interpretations, walking the land with producers, offer suggestions to improve the resource or make it more efficient

## **Environmental Quality Incentives Program (EQIP)**

~ 3 year contracts

Ex: 400 acre farm has leaky center pivot irrigation system or impact sprinklers

Resource concern: Inefficient use of irrigation water

Solution: Replace pivot or replace impact sprinklers with low pressure drop nozzles

Also would recommend a soil moisture sensor to help producer learn when the irrigation system needs to be turned on

## **Conservation Stewardship Program (CSP)**

- 5 year payment program

- rewards producers for good conservation, requires an enhancement

Ex: 1,000 acre farm practicing Strip tillage and has a nutrient management plan

enhancement: farmer may decide to implement cover crops on 200 acres



Irrigation Water Management	Clemson University	On-Farm Demonstration and Evaluation of Cloud-Based Soil Moisture Monitoring Technologies for Irrigation Scheduling to Enhance Farm Profitability and Environmental Quality	\$497,189	SC
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## Conservation Innovation Grants (CIG)

### 2020- Mobile Irrigation Lab (MIL)

NRCS, Aiken SWCD, Clemson, SCDA,  
SCDNR, Farm Bureau

-Before and after calibration of center  
pivots

- Hope to produce water savings  
information to State legislators

Utilizing Deep-rooted Cover Crops to Enhance  
Water Quality, Soil Health, and Farm Profits  
While Reducing Soil Compaction in Coastal Plain  
Region



Project Lead: Clemson University  
Project Location: GA, SC  
Funding Amount: \$499,544  
Award Category: Water Management



**Thank you**  
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