Coastal Plain Experiment Station (CPES)

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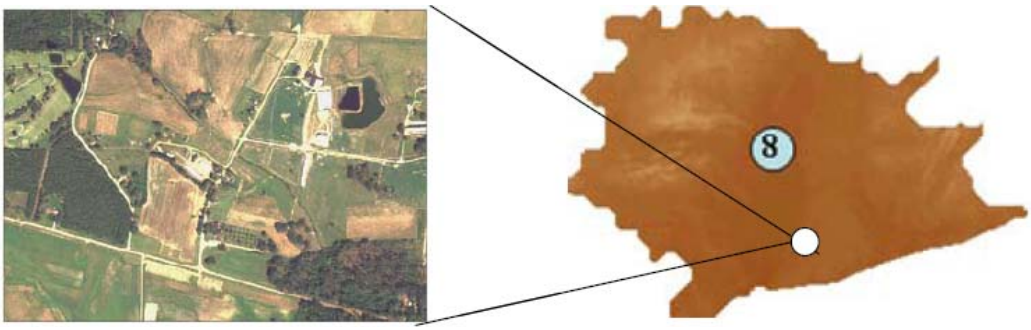
Web Page: http://www.msstate.edu/dept/cmrec/cpes/
Location within Domain: 32.3214 N, 89.1432 W



History: The Mississippi State University Coastal Plain Experiment Station (CPES) was established in1946 in Newton County, Mississippi, as a site for dairy farm research. Primary emphases now are dairy management, nutrition, animal health, reproductive physiology, and year round forage systems. Research with major row crops (cotton, corn, soybean, and small grains) address soil fertility, plant needs variety development, and tillage conservation management. It is also currently a National Oceanic and Atmospheric Administration (NOAA) Climate Reference Network (USCRN) site.

Key Characteristics: Existing vegetation (pasture and row crops) is typical of Domain #8 agricultural settings. Climate and soil types are characteristic of the southern part of Domain #8. This setting can be used to address climate, land use change, invasive species, and coastal instability (hurricane inland effects) NEON response themes. The CPES represents a common agricultural landscape in the coastal plain physiographic province and the southeastern mixed forest ecoregion, both dominant geographical regions in Domain #8. Elevation ranges from 116-150 m, and it is located ~ 180-200 km north of the Gulf of Mexico. CPES is a Mississippi Agricultural and Forestry Experiment Station administered through Mississippi State University.

Existing Infrastructure: As an Agricultural Experimental Station, CPES supports research in forage, grain crop, wildlife, and waste management. As a NOAA USCRN site, it provides future long-term observations of temperature and precipitation coupled to long-term historical observations for the detection and attribution of present/future climate change. The site instrument suite includes a standard set of sensors, data logger, and satellite communications transmitter to measure air temperature, precipitation, solar radiation, wind speed, surface temperature, and relative humidity. Sensors are on a 3 m tower at 1.5 m above ground. Also, a flux tower outfitted with soil measurements designed by Dr. Tilden Meyers will be placed at the site starting in January 2007. (http://www.ncdc.noaa.gov/crn/programoverview.html). To best serve the NEON response themes, the relocatable unit for this site should include at a minimum advanced met instruments, radiometric measurements, soil sensors, flux instrumentation, unless already onsite.

Facilities: Besides the foundations and structures needed for the USCRN instrumentation, CPES has permanent buildings to house offices, vehicles and farm equipment. Accommodations for visitors are available in the nearby town of Newton, MS**.**