

USDA Regional Climate Hubs: Southeast Regional Vulnerability Assessment Summary



Climate Vulnerabilities in the Southeast

Regional Description:

Southeastern agriculture and forestry remain central economic drivers for the region. Cotton, peanuts, and citrus are considered southeastern staple commodities, but the range of agricultural products has expanded in recent decades to include new specialty crops. Concern over the decreasing supply of groundwater in the West and Midwest are driving discussion on the need to irrigate more southeastern corn and wheat land. After a lull during the mid-20th century, concerns over endangered species and sustainability in the Pacific Northwest have led to a greater dependency on southeastern timber and pulp wood supplies. All of these changes are occurring within the pressures of the nation's fastest growing population. This vulnerability assessment addresses forests, cropland, and livestock vulnerabilities and adaptation options.

Climate Related Hazards and Vulnerabilities:

- **Signals of change in important climate drivers** include: 1) Days with daytime temperatures above 95°F are expected to increase by up to 50 days annually, 2) nights below freezing are expected to decrease by up to 20 days annually, and 3) coastal working lands are vulnerable to sea level rise and saltwater intrusion.
- **Reduced farm productivity** may result from altered rainfall patterns and increased frequency and severity of extreme events
- **Rising temperatures may increase risk of heat-stress** for livestock and crops and increase production costs
- **Reduced forest productivity and carbon sequestration** may result from increasing climate variability

Adaptation and Mitigation Strategies:

- Increased diversity, redundancy, and flexibility in cropping systems increases resilience
- Cover crops and increases in soil organic matter content buffer against drought and flooding
- Animal production adaptation options include increasing shade, identifying heat-resistant breeds, controlling disease for unconfined species, and improving cooling for confined species
- Forest adaptation options include thinning, prescribed fire, and planting diverse and genetically adapted seedlings

Regional Priorities:

- Forest adaptation options include thinning, prescribed fire, and planting diverse and genetically adapted seedlings
- Outreach and education to extension, consultants, and conservationists to communicate climate information through trusted sources to land managers

To learn more about the USDA Climate Hubs visit: www.usda.gov/climatehubs

To read the full Vulnerability Assessment visit: <http://go.usa.gov/3eEVd>