

## **Southeast Agriculture Adaptation Workbook: A Hands–On Tool for Extension Agents, Land Managers, and Growers**

**Lee, John<sup>1</sup>**, Steve McNulty<sup>2</sup>, and Dan Dostie<sup>1</sup>

<sup>1</sup>*USDA Natural Resources Conservation Service*

<sup>2</sup>*USDA Forest Service*

The favorable climate in the southeastern United States allows for the production of multiple types of crops using a variety of management systems. The region also has a significant number of poultry, swine, and cattle operations in practically every state, along with vast acreages of forestland managed by both private landowners and large commercial paper mills. This base of working lands provides a lot of opportunities to reduce greenhouse gas emissions by storing carbon in the soil, as well as other greenhouse gases such as ammonia, nitrous oxide, and methane through fertilizer and manure management. Unique to the region, rice farmers can improve water management practices to reduce methane and nitrous oxide emissions.

With this in mind, an effective method to educate landowners, farmers, and the extension community about adaptive management for climate change is being developed from the Forest Adaptation Workbook. The Southeastern Agriculture Adaptation Workbook provides a model for adopting sustainable adaptive agricultural management practices that are based on sound, scientific, unbiased evidence. The Workbook uses a five–step planning process to identify climate impacts and consider management responses: 1) defining specific management goals; 2) assessing potential impacts from climate change and increasing climate variability; 3) evaluating those management goals and objectives in the context of climate changes; 4) identifying a range of adaptive management approaches and tactics; and 5) monitoring the effectiveness of the practices that landowners choose to implement. The Workbook includes guidance on using the NRCS Soil Health Planning Principals to mitigate climate change by promoting good soil management practices, along with nutrient, pest, and water management plans.

After introducing the Workbook, a brief demonstration of the tool will provide a hands–on tutorial for the audience. The presentation will conclude with a question and answer session to collect feedback about the tool’s strengths and weaknesses and inform the Climate Hub staff and liaison about future tool development priorities.