

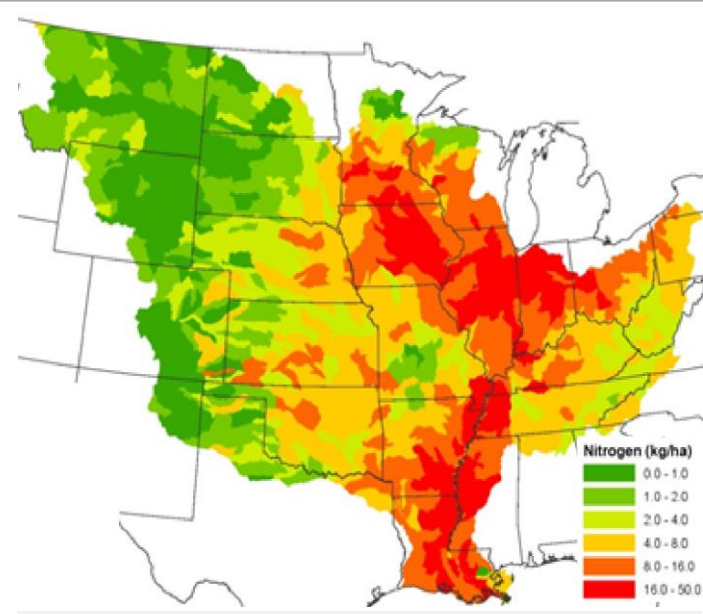


Agro-Environmental Systems Modeling

The mission of the GSWRL agro-environmental systems modeling research is to simulate agricultural management practices and aid decision-makers in pursuing more sustainable systems around the world. These models contribute significantly to the formation of national conservation policies, including those outlined in the Farm Bill, enabling the strategic and responsible use of taxpayer funds for agricultural sustainability.

The Grassland, Soil and Water Research Lab, along with Texas A&M Blackland Research Center and the NRCS CEAP Modeling Team, developed the SWAT+ and APEX models. SWAT+ focuses on large, complex watersheds, while APEX offers more detailed simulations on field and farm scales.

Models provide vital information on soil and water conservation planning, nutrient management, offsite environmental effects, and impacts of land use and climate change. Using local field-based research, enhanced computing techniques, and stakeholder input, models are continuing to be refined to ensure their relevance and effectiveness in advancing environmentally responsible farming practices.



Current Modeling Research:

- Conservation Effects Assessment Project (CEAP)
- National Ag. Model
- Conservation for Wildlife Recovery
- Legacy Phosphorus
- Pollution Impacted Communities
- Water Availability and Quality

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