

**Report from the Greenhouse Gas and Volatile Organic Compounds Sub-Committee  
of the Agricultural Air Quality Task Force  
November 28-30, 2006**

Chairman:

Charles Rice

Members:

Cynthia Cory  
Jerry Hatfield  
Brian Lindley  
Charles Rice  
Sagar Krupa

NRCS Liaison:

Roel Vining  
Laura Haynes

At the charge of the AAQTF Chair, the Greenhouse Gas and Volatile Organic Compounds Sub-Committee discussed and identified the important issues related to agricultural emissions and uptake of GHGs and VOCs. After a spirited discussion, the Sub-committee identified several important GHG and VOC issues that should be addressed by the AAQTF; however, the following recommendation was decided to be the most important for the AAQTF to consider:

- The Sub-committee recommends that the Task Force request that NRCS, in conjunction with ARS and university scientists, conduct an evaluation of minimum standards acceptable for measuring, monitoring, and verifying GHG sequestration and emissions in agricultural operations for the purpose of marketing and trading GHG credits to be considered in the FY07 Farm Bill.
- Along with this evaluation, the Sub-committee recommends that the Task Force request that USDA shall lead development of an auditing protocol for verifying emissions (or uptake) and develop a coordinated method to uniformly apply predictive technologies across they array of agricultural systems, climates, and soils across the country and international.
- To identify the uncertainties in GHG emissions and mitigation, the Sub-committee recommends that the Task Force request that NRCS coordinate with ARS and university scientists an evaluation of spatial and temporal variability in data availability and quality of GHG emissions and mitigation, and VOC emissions data and consider incorporating this information into the NRI. NRCS should then provide back to the Task Force a report on their findings.

In addition to the above recommendations, the Sub-committee recommends that the following items be addressed if time permits:

- Evaluate current GHG emissions and mitigation policies and practices
  - Expand CEAP to a more holistic review approach →including air quality issues
  - Review NRCS programs in regards to GHG emissions and mitigation
  - Review effectiveness of reducing GHG and VOC emissions through current EPA regulation
- Identify and promote critical research needs to USDA and EPA on GHG sequestration, emissions, and mitigation practices.
- Develop the conservation management strategies (practices) that support the environmentally safe use of pesticides.
- AAQTF needs to promote a system based approach of GHG mitigation, not concentrate on individual gases. Need to investigate the interactions between carbon and nitrogen in agricultural systems.
  - In particular, need to promote further investigations into the dynamics of nitrous oxide (N<sub>2</sub>O) emissions.
- Clarify definitions of no-till, strip till, mulch till, and other types of tillage and cropping systems. For example, burning of wheat residue, a common practice across the Plains, does not provide the benefits of no-till.