



University of Maryland
Penn State University
University of Delaware
Virginia Tech
West Virginia University

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Delaware State
Virginia State University
West Virginia State

Mid Atlantic Agricultural Ammonia Forum

Background:

There is awareness by the agricultural community of the ecological problems associated with nutrient over enrichment, specifically nitrogen, in coastal and estuarine waters. Historically, outreach and technical assistance on nutrient management has focused attention on losses of soluble nitrogen from manure and fertilizer directly to ground and surface waters. However nitrogen, primarily in the form of ammonia, is also lost to the atmosphere where it can deposit back to land and water surfaces. Studies in Delaware Bay, Chesapeake Bay, Albemarle-Pamlico Sounds, and Tampa Bay have indicated that ammonia emissions may be a significant (and growing) source of nitrogen loadings to nutrient-enriched ecosystems.

In November 2000, the Chesapeake Bay Program, the EPA Great Waters Program, the National Oceanic and Atmospheric Administration, and the Mid-Atlantic Regional Air Management Association sponsored a two-day workshop in Dewey Beach, Delaware that examined the ability of existing research and modeling efforts to support the development of policies for managing ammonia. Two primary conclusions from that meeting were: 1) additional research was needed on ammonia quantification and control strategies, and 2) significant public outreach to the agricultural community was needed regarding the importance of ammonia and its role in air and water quality. Since this meeting, several technical forums have been held to address advances in our scientific understanding of ammonia.

The Mid Atlantic Water Quality Program – a cooperative effort of nine Land Grant Universities in Delaware, Maryland, Pennsylvania, Virginia and West Virginia, the Chesapeake Bay Program, EPA Region 3, and the Chesapeake Bay Estuarine Research Reserve Program have joined together to sponsor two forums, in the Shenandoah Valley in Virginia and the Eastern Shore of Maryland, to begin the process of public education regarding the role of ammonia in nutrient pollution, agricultural sources, and emerging control technologies.

Anticipated Outcomes include:

- An awareness of the role agricultural ammonia emissions play in nitrogen pollution to air and water,
- An understanding of the pathways and processes by which ammonia is released by agricultural activities, and
- An understanding of emerging best management practices to contain or reduce ammonia emissions.