

Heartland Manure Management Policy and Practice: Continuity of Efforts and Results

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Background: Intensive livestock production in Midwestern states makes manure management a high priority for controlling excess nutrients in soil and water. The Animal Manure Management issue team (AMM) of the Heartland Regional Water Coordination Initiative has targeted a regional need created by recent changes in federal regulation of large livestock and poultry facilities (concentrated animal feeding operations, CAFOs). The CAFO regulatory mandate created a need for agencies and universities to integrate their activities for the benefit of regulators, technical assistance providers and individual operators.

In 2002 the AMM leadership made a commitment to work with agencies, research and technical specialists and the livestock industry toward regionally consistent CAFO regulations and comprehensive nutrient management plan (CNMP) requirements that met public environmental and regulatory objectives while also being practical and economical for operators. They have achieved significant outcomes attributable to regional coordination, the common denominator of which is a dedicated long-term effort focused on building trust and respect, establishing relationships and utilizing regional partnerships – tasks which foster long term outcomes in spite of ongoing changes in regulations, research findings, emerging issues, and turnover of public agency personnel. **Three principal outcomes of the AMM program are described below.**

Outcome 1: Improved efficiency and effectiveness of government agencies via improved communication, coordination and access to research-based information.

- Issue team established 2003, keeps program responsive to regional priorities and emerging issues.
- Annual 4-State Agency Conference (2002-2008) maintains consistent interaction, builds relationships among invited participants, keeps environment focus.
- Website established 2003 includes 35 issues of a continuing on-line Animal Manure Management newsletter. On average 350 visitors download materials each month. www.heartlandwq.iastate.edu/ManureManagement
- Twelve regional publications since 2005.
- Annual roundtables and training include: CAFO Inspectors 2005; TSP roundtable, 2006; National CNMP Curriculum, 2005-06; "Living with your permit" for feedlot operators, 2006-continuing; Feeding ethanol by-products, 2007; Performance indicators for NMPs, 2007; TSP College, 2008.
- Focus groups and surveys document increased regional communication, improved working relations with EPA and state agencies; leveraging resources; improved program coordination. Over 250 have attended workshops and have indicated they will contact over 3,000 people with the information.

Outcome 2: Greater on-farm functionality of nutrient planning processes due to Heartland's engagement of the regulatory community in both integration of science and review of plan implementation policies.

- Regional working groups on records and NMP formats established 2005.
- CNMP format and tools published 2006, 2007.
- Feedlot operators CAFO updates 2006, 2007, 2008.
- NMP model published 2008.
- CAFO policy review and Heartland CAFO response to EPA, 2006 – strategic versus tactical (annual) plans.
- Heartland recommendations for "narrative" nutrient plan options incorporated into 2008 EPA CAFO regulations.
- NMP format adopted by Iowa NRCS, 2008.
- NPDES Permit recommendations used by Iowa DNR, 2009.

Outcome 3: Engagement of agencies in the application of the alternative technology option of the CAFO regulations specific to open lot systems of the Midwest.

- Collaboration with USDA NRCS and EPA on guidance document "Vegetative Treatment Systems for Open Lot Runoff" that was published by USDA NRCS for national use, 2006.
- Collaborative research and demonstration involving the AMM team resulted in EPA Region 7 acceptance of states' permitting Vegetative Treatment Systems for the first time in over 30 years of CAFO regulation, 2008.

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