

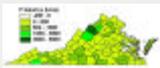
Animal Agriculture and Environmental Solutions for the Shenandoah Valley



Katharine Knowlton and Greg Evanylo, Virginia Tech; Suzie Friedman, Environmental Defense;
Ann Jennings, Chesapeake Bay Foundation; Kathy Holm, Shenandoah Resource Conservation & Development Council

Background

- Virginia livestock and poultry industries are concentrated in Chesapeake Bay Watershed.
- Poultry & livestock operations generate manure & phosphorus in excess of crop needs.



Solution: A stakeholder-organized facilitated workshop (Waste Solutions Forum) was planned and conducted.

Goal: Develop an action plan for implementation of economically and environmentally viable solutions for excess animal waste in the Shenandoah Valley by 2008.

Partners

VA State Dairyman's Association
VA Poultry Federation
VA Farm Bureau
Virginia Cooperative Extension
VA Dept of Conservation and Recreation
VA Dept of Environmental Quality
VA Dept of Health

VA Dept of Mines, Minerals & Energy
VA Dept of Agriculture & Consumer Services
Chesapeake Bay Foundation
Environmental Defense
Shenandoah RC&D
Pure Water Forum

Planning and Organization: Key Steps

1. Formed a *committed* planning committee (July 2004)
2. Sold the Dean and agency heads
3. Hired Univ. of Virginia Inst. for Environmental Negotiation as facilitators & program planners
4. Found the money
5. Fought over the invitation list
6. Developed the detailed briefing packet

Sponsors

Shared Solutions Agricultural Initiative of the Altria Family of Companies
Keith Campbell Foundation for the Environment
Chesapeake Bay Foundation
Shenandoah Resource Conservation and Development Council
Virginia Department of Agriculture and Consumer Services
Virginia Department of Conservation and Recreation
Virginia Department of Environmental Quality
Virginia Department of Mines, Minerals, and Energy
Virginia Farm Bureau Federation
Virginia Poultry Federation
Virginia State Dairyman's Association
Virginia Tech Center for Organizational and Technological Advancement
Virginia Tech College of Agriculture and Life Sciences

Waste Solution Forum

Location: Hotel Roanoke
Dates: April 28-29, 2005



Forum Participants

- 80 Stakeholders comprising:
- Environmental organizations
 - Farmers/agricultural organizations
 - Researchers & educators
 - State & local government
 - Federal agencies
 - SWCDs, PDCs, POTWs
 - Industry
 - Sponsors

Program

Day 1 (AM) Session

1. Keynote speaker
2. Background reports
 - a. Bioenergy
 - b. Value added uses
 - c. Dietary nutrient mgt
 - d. Transportation solutions



3. Invited speakers
 - a. Keys to success
 - b. Overcoming barriers
 - c. Incentives
4. Poster session: Alternative technologies



Day 1 (PM) and Day 2 (AM) Session

- Creating a waste solutions strategy:
- ◆ 4 simultaneous, repeated facilitated breakout sessions
 - ◆ Developing visions, goals, ACTIONS
 - ◆ All comments documented



Forum Results: Priorities

Research:

- Air emissions reduction
- Real time feed and manure analysis
- Waste-to-energy
- "Precision feeding"
- Emerging pollutants



Education:

- 6-10 technology training workshops in 2 years
- On-farm demonstrations
- Short courses for nutrient management planners, biomass resources, and management options
- Nutrient management training for small producers



Policy:

- Develop reliable \$\$ stream for conservation programs & innovation grants
- Executive Order: Require manure products to be used on state/federal land
- Regulations/policies and incentive and flexibility tied to performance
- Review regulations that inhibit implementation of alternative uses



Pilot Projects:

- Develop a regional waste cooperative in Valley
- Transportable pyrolysis demonstration project
- Full service litter transport coordination
- Improved feed mgt on dairy farms
- Alter procurement: require state to use manure for fertilizer



Example of an implementable plan developed during the Forum

Goal: Implement incentive program to reduce overfeeding of P on 300 Virginia dairy farms
Expected Impact: Reduce P₂O₅ losses by 2.2 million kg over 3 years

Actions	Resources	People	Timeline
<ul style="list-style-type: none"> • Identify farms with greatest need for improvement • Monitor feeding practices • Educate producers and advisors • Incentive payment program 	<ul style="list-style-type: none"> • \$300,000 needed to fund staff and develop business plan • \$200,000 needed to make plan operational 	<ul style="list-style-type: none"> • 5 organizations committed (power companies, Chesapeake Bay Foundation, agricultural organizations) • List of 7 additional people who are needed • Identify 3 leaders 	<p>7-05: Identify leader and fund staff 9-05: Start developing a business plan 12-05: Decide whether to proceed 7-06: Acquire operational funds 7-06: In operation</p>

Organized for action

Follow-up meeting (May 17):
Formed post-forum steering committee
Selected highest priorities for future group action ("low-hanging fruit")
Final report (plan) published in June, 2005
Quarterly steering committee meetings

Top 5 lessons learned

- #5 People outside of academia know stuff.
- #4 Sticky dots work.
- #3 Worth paying for professional facilitation.
- #2 Good people + Great timing = Real progress.
- #1 People outside of academia know stuff.

Immediate benefits

- ✓ State-funded P feeding incentive program (\$900K)
- ✓ Progress toward manure treatment coop
- ✓ Offers of funding
- ✓ Coordinated, funded educational programming
- ✓ New partnerships for research
- ✓ Black hats talking to the white hats
- ✓ Farmers believe VT is doing something

What was hard

- ✓ Agreeing on approach
- ✓ Conference vs. the workshop
- ✓ Invitation list

What wasn't

- ✓ Commitment of diverse interests
- ✓ Finding the money
- ✓ Developing the briefing packet

Follow-up

<http://www.agnr.umd.edu/users/waterqual/>



http://www.agnr.umd.edu/users/waterqual/VA_Waste/va_waste_solutions_forum.html