

Statement of Pearlie S. Reed, Chief
Natural Resources Conservation Service
U.S. Department of Agriculture
before the House Agriculture Committee
Subcommittee on Forestry, Resource Conservation and Research
and
Subcommittee on Livestock, Dairy, and Poultry
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Mr. Chairmen, Members of the Subcommittees, thank you for inviting me to represent the Department of Agriculture (USDA) and discuss the issue of animal waste management. I am Pearlie Reed, Chief of the USDA Natural Resources Conservation Service.

USDA knows that the issue of pollution from Animal Feeding Operations (AFOs) is of great concern to Members of Congress and the public. Family farmers share with everyone a common interest in protecting and improving our nation's natural resources and it is important to work with them to set goals and develop plans to solve these problems, and we are committed to doing that. Before I begin the substance of my remarks, I would like to thank Mr. Combest, and Mr. Pombo for holding this hearing and for bringing attention to this important issue.

Background

Animal agriculture is an important factor in the U. S. economy. Poultry, beef, dairy, and swine convert forage and grain into value added products. These products are important components of our domestic food, fiber, and pharmaceutical industries. Animal products are the most rapidly growing segment of our agricultural export market, allowing

the U. S. to export value added animal products rather than lower value grain. Production, processing, and marketing animal products for domestic and export markets also represents jobs for U. S. workers.

The past two decades have seen a substantial change in America's animal production industries, largely due to market forces, technological advances, and institutional changes. These forces have promoted shifts in geographic locations where specific species of animals are produced; expansion of confinement production techniques; integration of production, processing, and marketing activities; geographic concentration of much of the industry; and geographic separation of animal production and feed production operations. Most livestock today are produced in total or finished in animal feeding operations (AFOs).

Manure is an important by-product of these operations. Some view manure as a resource and some as a waste. As a resource, manure can provide nutrients for crop growth and organic matter to maintain soil health. As a waste, manure is a disposal problem operators have to deal with on a daily basis. If manure is not managed properly it can cause water pollution and pose health problems for communities. AFOs are an environmental concern because of the potential contamination of water resources by nutrients, organic material, and biological organisms; transmission of disease to humans; and odor. Conflicts between livestock producers, rural neighbors, and communities over AFOs often arise as a result of these and other environmental issues.

Data produced by the NRCS indicate that several areas of the United States have a supply of nutrients that exceed crop nutrient requirements. This is largely due to the concentration of production in a few geographic areas, effectively separating areas where the animals are fed from areas where the grain is produced. In areas where the nutrients in

manure exceed crop needs, an accumulation of elements in the soil create a potential for surface and ground water pollution.

The potential for environmental problems arising is dependent upon the nutrients that are present in the soil and the manure, and the rate, timing, and method of application. In the past, as nutrient management plans were developed, nitrogen was our main concern because it not only leaches into groundwater, but also runs off into surface water. Therefore, we focused on establishing a nitrogen balance based upon what crops actually needed. We presumed that phosphorus would attach to soil particles and therefore, if we controlled erosion, we would prevent phosphorus leaching. However, this proved not to be the case because new research indicates that soils are showing phosphorus saturation. The studies indicate that if excess phosphorus is added to soil, it will not be absorbed, and is likely to run off into waterways. As will be explained later, NRCS now proposes to change its nutrient management information and practices to reflect these findings.

While most attention paid to animal manure focuses on environmental impacts, it is important to note that the organic matter and nutrients produced in confined animal operations has had many positive effects. Row crops and forage production in the Southeast has increased because manure applied to the land increased soil organic matter and supplied needed nutrients. The organic matter in manure benefits soils that have inherent productivity problems such as being shallow, or those with a high sand or clay content. Animal manure has also been used as a bioremediation tool on soils affected by naturally occurring chemicals, chemical spills, and mining.

Our challenge, and a goal of the Department, is to address the environmental issues while at the same time sustaining the positive attributes of animal agriculture.

Current Activities

USDA is fully engaged in developing effective solutions for the environment and our farmers. As USDA moves forward, we will examine existing initiatives to determine how they can assist farmers to better achieve environmental goals. I am proud of our work in this area, which I would like to summarize:

- *Secretary's Review of all USDA activities regarding animal waste* -- Last year, Secretary Glickman directed all USDA agencies to prepare a status report of their work that may relate to animal agriculture. Our objective was to go beyond conservation activities and programs that relate directly to planning, technical, and financial assistance with operators, and look also at how research, rural development programs, and other Department programs interact. The review was completed in December and has helped shape our approach and strategies for assisting producers improve their environmental stewardship.
- *Nutrient Management Policy and Standards* -- NRCS has reviewed its nutrient management policies and technical standards to make sure they are consistent with new science and new realities of animal agriculture. NRCS published a draft nutrient management policy in the Federal Register on April 22, based on that review. The policy will guide the agency's field staff who develop nutrient management plans as part of the conservation planning process. It establishes technical references, clarification of technical terminology, and identifies factors and variables that must be considered when assisting animal agriculture operations. We want to ensure that nutrient management plans are sound, and that they follow a set of consistent guidelines. The draft policy will be revised based upon the comments we receive from the public and will be finalized later this year. We feel it is an important step toward

providing the operators of animal feeding lots the very best technical assistance available.

- *Pork Dialogue* -- USDA was a key participant in the National Environmental Dialogue on Pork Production (NEDPP) that was convened in May of 1997 by America's Clean Water Foundation. The purpose of the dialogue was to create a national framework designed to promote sound environmental performance by the pork production industry. The forum endeavored to construct a framework to: 1) ensure that the environment is protected; and 2) provide pork producers with more certainty and consistency in regulatory programs. The NEDPP was an excellent forum for sharing knowledge and expertise on existing and emerging issues. Through the dialogue, participants developed recommendations on how the issues should be addressed. We are now participating in a similar dialogue initiated by the poultry industry. We will use what we have learned from our participation in these dialogues as we develop our strategies to assist AFOs to meet environmental goals.
- *Summit on Animal Waste* -- USDA participated in a National Summit on Animal Waste Issues hosted by Senator Harkin on May 5, 1998. The forum was an opportunity for USDA and EPA to discuss the Administration's efforts to develop a unified national AFO strategy, and to listen to the views of several agricultural organizations, environmental groups, and state agencies.
- *Implementation of EQIP, Buffer Initiative, and WRP* -- As part of our efforts in conservation on private lands, we continue to offer assistance and programs to producers who want to participate. Demand for the Environmental Quality Incentives Program (EQIP), established by the Federal Agriculture Improvement and Reform Act of 1996 (1996 Act) is nearly three times what is available. The program offers

planning and financial assistance to solve a broad range of animal agriculture problems. Half of the program assistance must be devoted to livestock issues, including those faced by AFOs. Also, the Department's Conservation Buffer Initiative is moving forward with great success and seeks to achieve 2 million miles of buffers by the year 2002. We also seek to enroll 975,000 acres in the Wetlands Reserve Program (WRP) by 2002. This program protects the important functions and values of wetlands, many of which contribute toward solving water quality issues associated with AFOs.

- *Technical Assistance and FY'99 Budget Initiative* -- We also continue to promote local planning on a watershed basis to help solve water quality concerns. The Department's budget request for FY'99 contains \$20 million for partnership grants designed to comprehensively improve water quality. The partnership grants will enable State and local organizations to hire watershed coordinators to assist in locally-led watershed planning. An additional \$3 million has been requested to improve natural resource inventory evaluation, which will enable NRCS to have the best data available to assist farmers and communities. These budget initiatives are needed to enhance technical assistance at the local level.
- *Technology and NRCS Institutes* -- NRCS institutes bring together experts in individual disciplines to a center which is dedicated to excellence in that area of technology. This allows a particular institute to service the agency on a national basis, and provides a single resource for field staff on technical information. In addition, institutes serve as a single point of contact with the research community. This enables NRCS to keep fully apprised of the latest developments in research and technology and support useful application for NRCS field staff.

On Animal Feeding Operation issues, the Watershed Science Institute, Social Sciences Institute, Grazing Lands Technology Institute, and the National Water Management Center have performed key functions in providing technical resources to staff and customers alike. Examples include contributing to the revised policy for nutrient management planning, revision of the Animal Waste Management Handbook, development of guidance and practice standards for the Conservation Buffer Initiative, development of the Phosphorus Index and other tools to assess problems that may be associated with phosphorus build-up in soils. National training workshops have also been conducted in support of the buffer initiative and new training materials have been developed for nutrient management.

- *Technology Transfer* -- A technology application team has been formed with staff from different technology Institutes and Centers to focus on four core conservation practices on cropland. These practices are nutrient and pest management to ensure that the right amount of manure, fertilizer, or pesticide is applied; conservation tillage to reduce the risk that any material applied will move to the edge of the field; and conservation buffers as insurance to capture any pollutants that move off of the field. This team is available at a state's request to assist in planning efforts, to provide training, and to help evaluate results.
- *Research and Education* -- The Agricultural Experiment Stations and the Cooperative Extension Service system, coordinated by USDA's Cooperative State Research, Education, and Extension Service (CSREES) and headquartered at State land grant universities, along with the USDA's Agricultural Research Service (ARS) have been very active in technology development that applies to AFOs. ARS recently held a nationwide conference to assess current research work being done by the agency, to improve coordination among research efforts, and to plan future activities. Fourteen Land Grant Universities have formed a nationwide research and extension consortium

to focus on animal manure management issues. Most state extension programs have developed handbooks, training materials, and offer training on manure management for AFO operators.

- *Contract work with outside vendors* -- On April 22, 1998, NRCS signed a memorandum of understanding (MOU) with the American Society of Agronomy Certified Crop Advisers (CCA). Certified CCA members will provide assistance to the nation's farmers and ranchers in nutrient, pest, and residue management, mostly to prepare nutrient management plans. These plans will become part of the overall conservation plan for a given agricultural operation. The vendors will work closely with NRCS to ensure that the assistance they provide meets appropriate agency technical standards and specifications, as well as policy requirements.
- *Unified National Strategy on AFOs* -- One of USDA's most important AFO-related efforts is our ongoing work with EPA to develop a unified national strategy to address the environmental and public health impacts of AFOs. The unified strategy will set out the roles and responsibilities and operational details for both USDA and EPA programs dealing with animal feeding operations. USDA's primary role will focus on voluntary, incentive based technical assistance provided to landowners at their request, while EPA's primary role will be the effective implementation of programs called for in the Clean Water Act. An important expected result of the strategy will be defining the relationship that exists between the voluntary and regulatory programs in a way that results in complimentary efforts to help AFOs meet environmental goals. The strategy will also address ways that USDA and EPA can cooperate and coordinate research, education, technical assistance, and data gathering. USDA and EPA have convened a working group to draft a document for public comment by early July of this year. We are making steady progress toward that date. Some of the ideas may require a

considerable amount of time to fully implement. We will reach out to stakeholders and other parties as we continue to work with EPA developing this process. After public comment, a final Strategy will be produced by November 1998.

I look forward to working closely with the EPA Administrator and others in the development of this strategy. I also welcome input and ideas of the House Agriculture Committee.

Issues

I must alert you that the challenge of providing assistance to the number of AFOs is a daunting task. A large share of this task is providing technical and financial assistance that implements national conservation policy, but also ensures the viability of production agriculture. USDA has a good record of providing research based technology, education, and voluntary, incentives-based technical assistance that nurtures agricultural productivity. It is my hope that as we continue in the process of developing strategies on animal feeding operations, the needed technical and financial resources will be available to assist farmers.

The potential Animal Feeding Operation workload poses an enormous challenge to USDA to meet the research, education, and conservation assistance needs of livestock producers across the Nation. There will be need for expanded Extension Service assistance, training, as well as research into innovative ways to handle manure on the farm and process manure in areas where land application is not feasible.

We received the letter from the Committee dated May 7, 1998 requesting an assessment of the specific impact that the animal feeding operation strategy will have on USDA's staffing workload. We have the necessary analysis underway and will provide our findings to the Committee as soon as possible. Even at this stage, it is clear that the

potential workload would require significant budget support from the Administration and Congress.

Conclusion

Given necessary resources, USDA can assist farmers with manure storage facilities, nutrient management plans, management of land where manure is applied, and to comply with the regulations and permit requirements at the national, state, and local levels.

In addition, USDA will maintain conservation policies and practice standards that are technically sound and provide technical review of policies developed by other agencies. USDA research laboratories and the land grant universities will also provide the research-based knowledge necessary to support the goals, standards, and rules that are developed, and the Cooperative Extension System will help disseminate it through effective technology transfer programs.

I want to again thank both Subcommittee Chairs for their interest and leadership in addressing issues associated with management of AFOs. No doubt, this is an issue that will require our continued dialogue, exchange of information, and concerted effort. I would be happy to answer any questions that you might have.