NDSU Extension's Livestock Waste Management Program -- Where Are We Headed and How Are We Going to Get There

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Background

The NDSU Extension Area Specialist-Livestock Waste Management position has been located at the Carrington REC since 1998. During that time there has been progress made in educating the producers and the general public of North Dakota about the environmental, livestock, and agronomic production issues surrounding livestock waste management.

As the issues in this area mature, the direction of the program must respond with relevant outreach and research. One response of the program was to expand in 2003 to include another area specialist in livestock waste management located at the Dickinson REC. This will allow the program to grow tremendously and will enable us to leverage each other's strengths to build a robust education and research program.

Issues

- Livestock waste management is no longer something new. To protect our natural resources and meet societal demands, livestock producers are aware that their production practices will need to meet certain criteria.

- Land application of animal manures needs to be done properly and in a timely fashion. Producers need to know how much manure to apply to meet the crop needs based on the nutrient analysis of the manure and their soil test results. The producers also must have confidence that the manure nutrient credits they are taking are factual and have been verified through university research.

- Management of producer facilities needs to be done to protect the ground and surface waters as well as reduce odors to an acceptable limit. The facility design must meet certain specifications to control runoff of nutrient laden waters. The design must also prevent leaching of nutrients or other contaminants to the groundwater.

- In addition to agricultural production needs, the Federal EPA and North Dakota Department of Health have enacted updated non-point pollution rules that affect nearly all livestock producers in the state. Most producers are not aware of what these rules mean or if they are applicable to them.

- Local policymakers at the county and township level are becoming more involved in developing ordinances and zoning policies to address farming operations. These policymakers need to know what the non-point pollution rules are and what the state has in place for a model ordinance for livestock operations. The policymakers and community members are also questioning what the long-term impacts of zoning and ordinance decisions are on the future of the livestock industry in North Dakota.

Response

To take the livestock waste management program to a new, broader level concurrent with nutrient management trends nationwide, relationship building with all interested parties is a priority. Extra effort is being made to visit with county agents, Natural Resources Conservation Service (NRCS) and watershed personnel. Through these contacts programs are being

initiated to work with individual farmers, personnel in the feed and fertilizer industry, custom manure haulers, regulators, policymakers and others that deal in nutrient management issues.

Educational programs targeted at these groups are being developed to address manure nutrient utilization; livestock feeding, housing, and management impacts on livestock waste; defining and delineating the non-point pollution rules; and the economics of proper livestock waste management.

A partnership with NRCS is being enhanced to develop training in nutrient management planning for technical service providers (TSP). Some of this has been done in the past but more emphasis is being placed on aggressively marketing the program to individuals who are interested in becoming a TSP rather than on those who already are TSPs.

Research funding venues are being investigated to answer some of the manure nutrient utilization questions being asked. Very little confirmation of manure nutrient credits for crop production has been done under North Dakota growing conditions or soils and needs to be done to foster confidence in the numbers. Being located at the Carrington REC is extremely advantageous in that it enables a more immediate local research response to address producers' questions and to verify recommendations.