

A Recap on Two Years of Assessing Waste Management Systems for Livestock Operations

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NDSU's Livestock Waste Management and Technical Information program was initiated early in 1998 to offer producers guidance on whether their manure and runoff management system meets the requirements of state and federal regulations and, if not, suggest suitable options for upgrading that system. Since that time, over 70 livestock producers have requested an on-farm visit.

The objective of this review is to summarize the most common challenges that have been found during those assessments so that other producers may better assess their own situation. These challenges are listed in order of emphasis on the part of the producer:

1. Uncontrolled runoff from uncovered feeding areas. The runoff from feeding areas has to be controlled and isolated from clean runoff – usually by means of diversion banks and a storage pond or a bermed infiltration area.
2. Needing technical assistance to plan a new waste management system. NRCS, the South-Central RC&D Best Management Practice Team, the NDSU Extension Service or private consultants are all able to offer producers help in developing a plan for a manure management system. Cost share programs are available through NRCS and the Department of Health.
3. Lack of a nutrient management plan. Land application of manure remains the most cost effective way to utilize manure nutrients but regulatory requirements require producers to plan application rates according to crop requirements and keep records of the amount of manure spread and of which fields received it.
4. The operation has outgrown its waste management system. Between 1978 and 1998, cattle (beef and dairy) numbers in North Dakota increased from 93 to 127 head per farm on average while swine numbers increased from 67 to 235 head per farm. Some older manure management systems no longer have the capacity to handle the increase in the volume of manure or runoff produced.
5. Poor drainage in pens. Site selection and up-front design remains the best way to avoid the performance penalties and odor resulting from drainage problems and excess mud. Sites that are too flat (<2%) to ensure adequate drainage may have to build mounds and/or improve the pen surface with geotextile and gravel, coal ash or even concrete.
6. No “approval to operate.” There are operations in the state that meet the criteria requiring a Department of Health permit (those with more than 200 Animal Units) and do not have one. Those operators need to be aware that the general public will not be satisfied that the state's natural resources are being protected until the majority of livestock producers are complying with all regulatory requirements.