Livestock Waste Management

2000

The Situation

The livestock industry, particularly the dairy industry, continues to grow in the Magic Valley. Since 1978, the number of dairy cows in Gooding, Jerome and Twin Falls counties has grown from 28,000 to nearly 200,000 milking cows. During the same period of time, local communities also were experiencing growth. People have been expressing increased concern about the environmental impacts of livestock waste. Increased numbers of animals producing waste, a lack of concern for neighbors by some members of the industry, and a lack of understanding by people in the communities began to create problems for regulators and for the dairy industry. Negative and often incorrect information about the dairy industry became common in the local press.

The Response

County faculty and specialists performed a number of studies to provide factual, scientific data on the chemical composition of waste held in lagoons and seepage from waste lagoons. County faculty then provided this information to local planners. Extension faculty served on local planning and zoning boards in six counties and provided factual information regarding the concerns and benefits of livestock waste that would assist in orderly and environmentally sound growth of the dairy industry.

Extension provided workshops to dairymen, educating them on the aspects of livestock waste management, including containment and application of liquid and solid waste. Workshops were also provided to lenders, contractors and realtors to increase understanding of the waste concerns and to provide a coordinated effort in the design and construction of waste facilities.

Extension faculty have been involved in the development of the Memorandum of Understanding between US EPA, Idaho Department of Environmental Quality, Idaho Department of Agriculture and the United Dairymen of Idaho. Extension faculty have further been involved in the preparation of the rules for the application of livestock manure to cropland as a means of disposal. Additionally, Extension faculty members have been involved in the development of the nutrient management planning program, which is a requirement for all dairy and beef operations.

Extension faculty, including four in District III, have received training in the development of nutrient management plans. Currently, one of the faculty members is a certified nutrient management planner and is becoming a certified assessor with the On Farm Odor/Environmental Assessment program, which is sponsored by America’s Clean Water Foundation and the National Pork Producers Association.
Achievements
In the past two years, 71 livestock producers have received assistance from Extension to prepare a waste system plan, determine water requirements, prepare a preliminary nutrient management plan or to develop a comprehensive nutrient management plan which will insure compliance with the State of Idaho requirements. The Idaho Department of Agriculture, zoning departments, realtors, lenders, contractors and dairymen are now working together to properly design and install waste management facilities that will meet the needs of the community and the environment. There currently are a number of individuals who have been trained to be nutrient management planners who are working with producers to develop nutrient management plans that will meet the state standards and will offer protection to the environment by insuring that the application of livestock manure will not exceed the ability of the plants to use the nutrients provided.

As a result of these efforts, all of the new operations being planned are required to include a preliminary nutrient management plan as a part of the information submitted for permit consideration in Twin Falls, Jerome and Gooding counties. The requirement applies not only to the dairy industry but has also been extended to beef and feedlot operations. This requirement will help to insure that new facilities have the necessary land base needed to operate with a minimal impact on the environment, specifically surface and ground water.

The Future
Research and demonstration projects will be needed to develop new technologies that can be used by producers to comply with regulations, which are sure to continue to become more stringent. The use of existing technologies, such as double cropping to increase the uptake of nutrients on an annual basis, will also be necessary to assist producers in maintaining a balance of nutrient usage.

Determining the correct crops to maximize uptake is another area that will need to be explored in the future. Proper irrigation to reduce leaching and runoff will also be imperative to reduce environmental impacts of livestock manure use in agriculture.

For More Information
Robert Ohlensehlen – Extension Educator
University of Idaho
Twin Falls County Cooperative Extension System
246 3rd Avenue East
Twin Falls, ID 83301
Phone: 208-734-9590
Fax: 208-733-9645
Email: boohlens@uidaho.edu

William F. Hazen – Extension Educator
University of Idaho
Gooding County Cooperative Extension System
202 14th Avenue East
Gooding, ID 83330
Phone: 208-934-4417
Fax: 208-934-4418
Email: bhazen@micron.net

Richard Garrard – Extension Educator
University of Idaho
Cassia County Cooperative Extension System
1451 Overland, Room 2
Burley, ID 83318
Phone: 208-878-9461
Fax: 208-678-9109
Email: cassia@uidaho.edu

Dean Falk - Extension Dairy Specialist
University of Idaho
Twin Falls Research and Extension Center
P. O. Box 1827
Twin Falls, ID 83303-1827
Phone: 208-736-3600
Fax: 208-736-0843
Email: dfalk@uidaho.edu

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