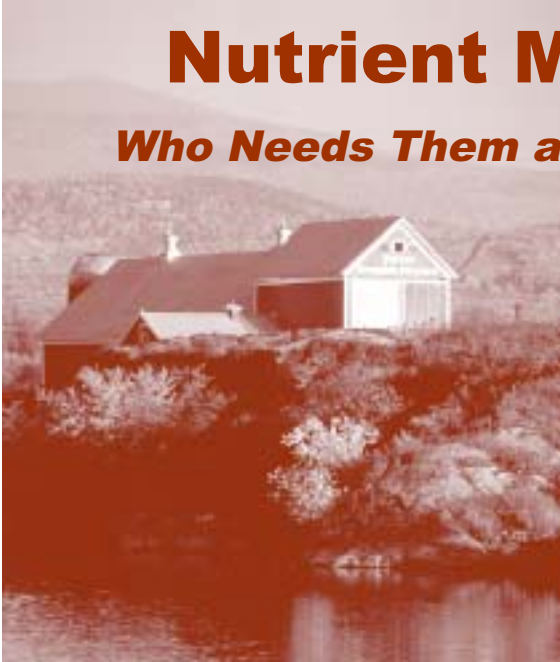


Nutrient Management Plans

Who Needs Them and How to Prepare for Your Own



*Kristin Keith, Extension Water Quality Educator
Dean Falk and Rick Norell, Extension Dairy Specialists*

What are the Components of a Nutrition Management Plan?

NMPs require several components. The following is a brief description of the information needed:

- **Facility description:** A description of the facility's operation—number and weight of animals, housing, bedding use, milk parlor operation, and water use.
- **Facility site plan:** A map of the facility that identifies structures on the property, such as milk barn, livestock corrals, piping, containment structures, etc.
- **Land Application/Resource Site Plan:** An aerial map of crop acres that identifies property boundaries, roads, dairy location, runoff pattern, fields, acreage, field slopes, etc.
- **Resource concerns:** Physical features of the land that may require special management practices to minimize the impact on ground and surface water quality. Those physical features include rock outcrops, nearby surface water, shallow ground water, sinkholes, wellheads, and injection wells.
- **Waste storage and handling:** A description of the handling and storage of all solid and liquid waste, including the export of waste. The storage pond should be large enough to provide storage for 180 days of milking center waste and for runoff water resulting from a significant storm event that has a probability of occurring only once in 25 years. The pond also should be capable of providing storage for runoff that results from a wet winter that has a probability of occurring once in every five years.
- **Nutrient management system:** A description of cropland, acreage, irrigation practices, crop rotation, crop nutrient uptake, nutrient sources (fertilizer and animal manure nutrients), soil properties, soil testing data, and nutrients produced and/or imported to the facility.
- **Irrigation system:** An evaluation of irrigation practices and their potential to transport nutrients off the property or below the root zone.

Who Needs a Nutrient Management Plan?

A Nutrient Management Plan (NMP) can help producers who use animal manure and/or commercial fertilizers as nutrient sources for their crops to optimize crop water and nutrient needs. In an effort to help minimize ground and surface water impacts from phosphorus and nitrogen, laws were enacted that require all Idaho dairies to have a Nutrient Management Plan (NMP) by July 2001; all Confined Animal beef Feeding Operations (CAFOs) must have a Nutrient Management Plan by 2005.

What is a Nutrient Management Plan?

A Nutrient Management Plan is a document prepared by a certified planner working in cooperation with producers. Plans are location-specific and are written to achieve crop production goals while minimizing the environmental impact of nutrients (nitrogen, phosphorus, and potassium). Plans take into consideration herd size, facility design, number of crop acres, soils, climate, and crop production. If a producer does not have enough acres to utilize nutrients produced from the dairy or feedlot, export of animal manure or the purchase of additional crop acreage should be considered. The Idaho State Department of Agriculture (ISDA) must approve plans written for dairy and confined beef feeding operations.

Continued

- **Nutrient Management Requirements and Recommendations:** Regulatory management practice requirements are based on the information outlined earlier and follow the guidelines of the Natural Resource Conservation Service (NRCS) Idaho Nutrient Management Standard.

How Can You be Prepared for Your Nutrient Management Planner?

Writing an NMP takes time and can be costly to the producer. You may be able to decrease the cost significantly by being prepared before meeting with your certified planner. Here are some recommendations to help minimize the cost of your planning process:

- **Have your soil tested**
At the minimum, a spring nitrogen and a phosphorus soil test is needed from each of your crop fields. Take samples from the 0- to 12-inch depth (for nitrogen and phosphorus), and the 12- to 24-inch depth (for nitrogen). If your operation is governed by dairy or beef CAFO regulations, an additional phosphorus sample from the 18- to 24-inch depth is recommended on fields with no runoff. Samples should be representative of the field. Refer to the University of Idaho Extension Bulletin #704 on the proper method to sample soil.
- **Have facility site plan and land application/resource site plan completed**
A planner can spend a lot of time creating these maps. You may have maps of your dairy or feedlot and crop acres already available. Updating those maps with the physical features listed previously may be an acceptable alternative to having new maps made.
- **Collect accurate storage pond sizing information**
Accurate information on storage pond dimensions and depth is critical. Daily water use and runoff from a 25-year storm or abnormally wet winter (as defined

earlier) is figured into the sizing of your storage pond(s). The ISDA (at <http://www.agri.state.id.us>), your University of Idaho dairy specialist, and some county agents can provide storage pond-sizing assistance or provide a storage pond-sizing questionnaire. If you have sizing documentation on existing storage ponds, make it available. Your planner will compare the existing size with calculated needs, based on water directed to the storage pond.

- **Stay involved in the entire planning process**
The purpose of an NMP is to meet crop production goals while minimizing environmental impacts. Only you know your production goals and how you want to run your operation. Your planner could write a plan that is totally different than your objectives. Or, your planner might write something that is too difficult to implement. Both scenarios could result in costly revisions. Therefore, ask a lot of questions and be involved with the entire nutrient management planning process.
- **Shop around**
Planners charge a wide range of rates to write an NMP. Some charge on a per-animal basis and/or a per-acre basis. Some charge an hourly rate. It is wise to talk to a few planners before committing to the planner you will trust to write your NMP. Some ISDA, NRCS, and University of Idaho extension personnel have been trained and certified in nutrient management planning, and may be available to assist in the planning process.

The dairy and beef feeding industries in Idaho have taken a major step by agreeing to meet waste containment and nutrient management regulations. Idaho is ahead of other states in this process. Following the guidelines of an NMP should in no way sacrifice your production goals. By preparing early and staying involved in the planning process, you can decrease the cost, assure that all of your concerns are addressed, and meet production goals while being a good steward of the land.

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, LeRoy D. Luft, Director of Cooperative Extension System, University of Idaho, Moscow, Idaho 83844. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, religion, national origin, age, gender, disability, or status as a Vietnam-era veteran, as required by state and federal laws.