

Comprehensive Nutrient Management Plan

A Comprehensive Nutrient Management Plan (CNMP) is a part of a good conservation plan for livestock operations. It's a plan to protect water quality and soil health by managing manure and the nutrients in it. There are six components to the plan.

1. Manure Handling, Transfer, and Storage



Be Safe and Protect Water Quality

Divert Clean Water

- ◆ Keep rainfall and runoff out of feedlots and storage areas.
- ◆ Adding water to manure reduces its nutrient value and adds to the quantity that you need to handle.

Prevent Leakage of Manure Storage Facilities

- ◆ Use proper operation and maintenance of manure storage facility and equipment.
- ◆ Inspect facilities on a regular basis, especially after emptying the storage facility.

Provide Adequate Manure Storage and Transfer

- ◆ Storage facilities must be large enough to handle manure and water, including any rainfall or wastewater that is not diverted.
- ◆ Manure storage must be carefully located to protect ground and surface waters.

Manure Treatment

- ◆ Spread manure to maximize nutrient uptake by plants and minimize odors.
- ◆ Manure should be handled and/or treated to reduce nutrient losses to the air.
- ◆ Stabilization methods can affect manure nutrients.

2. Spreading Manure on Cropland



Develop a phosphorus based nutrient management plan

- ◆ Test the soil and manure for nutrient content.
- ◆ Follow a spreading plan so nutrients meet crop needs without overloading any fields.
- ◆ Minimize runoff to land applied manure through conservation planning.

3. Land Management

Prevent Soil Erosion

- ◆ Use conservation practices like conservation tillage, contour strip cropping and grassed waterways.

Protect Water Quality

- ◆ Install forest riparian buffers, filter strips, field borders and contour buffer strips.

These conservation practices intercept, store and utilize nutrients or other pollutants that runoff from fields.



4. Keeping Good Records



- ◆ Keep track of how much manure is produced.
- ◆ Record the location, date and rate of application.
- ◆ Keep records of soil and manure testing.



5. Feed Management



Manure Management is influenced by the feed ration. Feed additives increase the nutrients in manure, especially phosphorous. The more phosphorous in the manure, the more acres you need to spread.



6. Other Options

If your land for manure application is limited consider:

- ◆ Changing the characteristics of the manure to allow for:
 - ◆ Composting manure to sell to landscapers.
 - ◆ Selling or trading manure solids
- ◆ Generating electrical power
- ◆ Irrigating liquids after treatment.



The goal of this plan is to set forth a range of flexible common-sense actions to minimize the water quality and public health impacts of animal feeding operations, while ensuring the long-term sustainability of livestock production in the United States.

For more information or assistance contact your local USDA Natural Resources Conservation Service Office or www.wi.nrcs.usda.gov