

Real-world Information on Managing Manure.

“Last year was the first year we tried the tow-hose system for applying manure on our fields. The manure is pumped from the ponds right out to the chisel plow and directly into the ground. We saw a 30-bushel increase on corn yield where the manure was knifed-in versus where it was applied on top of the ground and chiseled in later.”

Steve Lammers, Roberts County, SD



“Since installing my system, my feedlots stay drier and the cattle are cleaner because of the improved drainage. The system also does a great job of containing the manure and lot runoff.”

Dwight Scott, Aurora County, SD

In rangeland areas where livestock confinement is less common, manure management opportunities include moving livestock wintering locations away from river and stream channels.



“For a rancher, one of the simplest conservation practices is to avoid overgrazing the land. The river is an inviting place for a cattle herd. But livestock also break down the fragile riverbanks and eat the vegetation that holds the soil in place. Wells away from the river and artificial shelterbelts made of thick posts and corrugated tin provide what the animals need.”

Clint Caldwell, Stanley County, SD

For more information or assistance with *management options*, contact your local :

- Conservation District,
 - Cooperative Extension Service,
 - Natural Resources Conservation Service,
- or any of the following:

South Dakota Assn. of Conservation Districts
P.O. Box 275
Pierre, SD 57501-0275
(800) 729-4099
FAX: (605) 895-9424
www.sd.nacdn.net
consvrSD@cam-walnet.com

USDA Natural Resources Conservation Service
Federal Building
200 Fourth St. SW
Huron, SD 57350-2475
(605) 352-1200
FAX: (605) 352-1270
www.sd.nrcs.usda.gov

South Dakota Department of Agriculture
Office of the Secretary
Foss Bldg., 523 E. Capitol
Pierre, SD 57501
(605) 773-3375
FAX: (605) 773-4003
(800) 228-5254
www.state.sd.us/doa

Cooperative Extension Service
South Dakota State University
Department of Agricultural and Biosystems Engineering
Box 2120, SDSU
Brookings, SD 57007
(605) 688-5144
FAX: (605) 688-6764
ullery.charles@ces.sdstate.edu

Department of Plant Science Box 2207A, SDSU Brookings, SD 57007
(605) 688-4772
FAX: (605) 688-4667
gerwing.james@ces.sdstate.edu

For more information or assistance with regulatory requirements, contact:

SD Dept. of Environment and Natural Resources
Surface Water Quality Program
Foss Building, 523 E. Capitol Ave.
Pierre, SD 57501-3182
(605) 773-3351 • FAX: (605) 773-5386
(800) GET-DENR
www.state.sd.us/denr

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Straight Talk on manure



why, how and where to get help

South Dakota

Managing Nutrients...

“The best aspect of my ag waste system is that it has given me better control of my manure and has helped my lots stay in better shape. Knowing what I know now, I would definitely go through the planning process again and I recommend it to other farmers.”

Greg Wellhouse, Hamlin County, SD

Specialists can help put together a nutrient management plan tailored to your operation that addresses:



- The amount of manure produced by your livestock.



- How to sample liquid and solid manure to learn nutrient content and use the lab reports.



- How to collect soil samples and use the lab reports to determine the fertility level of your fields.



- Manure storage and application options that include new technology for reduced and no-till cropping systems.



Straight Talk on Manure.....

Manure as a Resource

Manure is a valuable resource that can provide:

- Nitrogen, phosphorus, potassium and micronutrients for plant growth.
- Organic matter that improves soil structure and water holding capacity.
- Methane gas to heat buildings and generate electricity.

Health and the Environment

The environment is everyone's responsibility.

Potential risks related to manure:

- Microorganisms present in manure can cause human and animal diseases if consumed in food or water contaminated with manure.
- If nitrates from excessive land application of manure reach an aquifer, wells may become unusable as a source of drinking water.
- Runoff from land treated with manure can contain excessive levels of nitrogen and phosphorus that can cause algal blooms in lakes and streams.

State and federal laws and local zoning ordinances in some counties regulate manure handling systems by requiring:

- Manure handling systems that protect public health and the environment.
- Establishment of pollution prevention, inspection and reporting requirements that assure appropriate manure handling systems and practices are utilized.
- Proper siting of the new and expanding livestock operations to minimize pollution and protect public health.

Why and How Do Nutrient Management Regulations Affect Me?

The likelihood that manure from a livestock operation might pollute surface or ground water or effect public health is related to the location and size of an operation.

South Dakota uses these factors to determine when a livestock operation is required to obtain a permit.

In South Dakota:

- All livestock operations must prevent surface and ground water pollution.
- All permitted facilities must contain the runoff from a 25-year, 24-hour storm event on site and implement a comprehensive nutrient management plan.

What is an AFO?

A feedlot or production facility is an animal feeding operation (AFO) if it:

- Stables, confines, feeds or holds animals in an open or closed lot for 45 days or more in any 12 month period.
- Does not maintain crops, forage, vegetation or post-harvest residues during the growing season.

Two or more AFOs under common ownership are considered one unit if they:

- Are located within one mile of each other.
- Use a common area or system for manure disposal.

Specific information about laws and ordinances is available. See contacts listed on the back page.

What is a CAFO?

In South Dakota, AFOs that hold more than 1,000 animal units (refer to Table) and smaller operations that discharge pollutants that impair a stream or other surface water are concentrated animal feeding operations (CAFOs).

All CAFOs are required to obtain a permit that outlines the manure management practices that an operator must follow to prevent water pollution and protect public health.

1,000 Animal Unit Equivalents

1,000 Slaughter or Feeder Cattle

700 Mature Dairy Cattle

2,500 Finisher Swine

10,000 Nursery Swine

2,130 Production Sows

270 Sow Farrow-to-Finish Unit

500 Horses

10,000 Sheep or Lambs

30,000 Chickens

55,000 Turkeys

5,000 Ducks

5,000 Geese

Do I Need a Permit?

A South Dakota Livestock Permit is required if an operation is:

- A new or expanding CAFO holding more than 1,000 animal units.
- An AFO found by the SD Department of Environment and Natural Resources to be polluting or having the potential to pollute surface or ground water resources.
- A new or expanding operation that county zoning ordinances require to have a permit.

Would Obtaining a Permit be to My Advantage?

Even if an operation is not required to obtain a permit, it may still be in the owner's best interest to obtain one. A permit:

- Signifies that the manure handling practices used comply with environmental regulations.
- Limits exposure to nuisance lawsuits and pollution claims under state and federal law.
- Places an existing operation in a better position to expand.
- Promotes good relations with neighbors and local government.

The information in this publication is general in nature. For more specific information in determining if a permit is needed or selecting resource management options for your operation, contact the assistance providers listed on the back panel of this publication.