

Treating On-farm Manure

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Will you be treating or processing the manure from your animals in the future? You may be. Here's why.

1) Society has recognized that animal agriculture can lead to excess nitrates in the ground water, pathogens in the drinking water and excess nutrients, BOD, and sediment in surface water.

2) To avoid these problems manure will increasingly be spread on dry soils in fields where the chance of runoff and leaching are low.

3) Manure storage will be standard procedure on most farms to avoid spreading manure on wet soils.

4) When manure is stored it starts to decompose anaerobically. The by-products of incomplete anaerobic decomposition are very smelly.

5) Society objects to bad odors as much if not more than dirty water. Treatment for odor control will become much more common on farms.

Here are other reasons to treat manure besides odor reduction:

✓ Reduction in mass. Less total material to haul to far away fields and less soil compaction.

✓ Nutrient reduction. Reduced amounts of nutrients would mean less land would be needed for disposal.

✓ Pathogen control. Eliminating animal and human pathogens from manure would improve biosecurity issues.

✓ By-product sales. Processes that produce feed, energy or salable organic matter could help pay for the treatment process or in some cases add an income stream.

There are a wide variety of farms. They vary in their resources and their manure management concerns. Some farms have access to more capital, skilled labor, management ability, nearby land resources, water resources, and markets than other farms.

Some farms are under more severe constraints to control odors, nutrients, or pathogens. Below are different manure treatment and handling methods that may match the resources and needs of different farms:

Separation of the manure solids mechanically can produce a "solid" portion (15-30% DM) and a "liquid portion" (4-8% DM). Liquids are easier to handle. Solids can be recovered for bedding, soil amendment, or exported off the farm.

Composting dryer manure directly, or by adding bed-

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- Nutrient Management Planning
- Optimum Economic Yields
- High Quality Crops
- Fertilizer and Pesticide Efficiency
- Environmental Stewardship

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