Managing Manure

This factsheet is one of a series developed for livestock owners with small farms. Each factsheet focuses on an area of management that will benefit the health of your animals, as well as the health of your property’s natural resources.

Best Management Practice Factsheet

Proper storage and use of manure is important on small farms & commercial farms. Good manure management is necessary to optimize use of manure as fertilizer and to prevent nutrients and bacteria from entering a stream or ditch. Clean water, less mud, and healthier animals are the result if you follow these manure management recommendations.

Cover manure piles from October 1 to March 15 to prevent oversaturation.

Where to Locate your Manure Pile:
- At least 100ft from wells, all surface water, and wetlands
- On high, dry, level ground

Livestock parasite life cycles involve leaving the host animal via manure and then re-infecting a new host through manure contact. Manure and urine soaked bedding is also a perfect medium for the proliferation of bacteria and flies. Regular collection of manure from stalls, paddocks and winter confinement areas is essential to the health of your animals. Use aeration to reach temperatures of at least 131° F for at least three days to kill most parasites and weed seeds.

Tips for Success:
- Remove manure every 1-3 days from stalls, paddocks and other confinement areas or deep bed with chips or straw for less regular clean outs.
- Match carbon in bedding to Nitrogen in manure for 25:1 ratio.
- Spread on pastures in the growing season.

How much storage do you need?

<table>
<thead>
<tr>
<th>Livestock Type</th>
<th>Manure Produced per 1000 lbs of animal/day</th>
<th>Bedding Used/day</th>
<th>Storage Required for 5 Months (Nov-March)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horse</td>
<td>0.7 cu. ft/1000 lbs</td>
<td>0.4 - 0.8 cu. ft</td>
<td>6 cu. yrd</td>
</tr>
<tr>
<td>Beef Cattle</td>
<td>1.1 cu. ft/1000 lbs</td>
<td>0.25 cu. ft</td>
<td>7.5 cu. yrd</td>
</tr>
<tr>
<td>Swine</td>
<td>0.5 cu. ft/1000 lbs</td>
<td>0.20 cu. ft</td>
<td>4 cu. yrd</td>
</tr>
<tr>
<td>Sheep/Goats</td>
<td>0.65 cu. ft/1000 lbs</td>
<td>0.35 cu. ft</td>
<td>5.5 cu. yrd</td>
</tr>
</tbody>
</table>

Roll tarp around wood post and secure with nail.
Which manure storage option is best for your farm?

**Stockpiling**
- Pile manure and soiled bedding at least 100’ from surface water.
- Use a tarp to cover the pile; reduce runoff concerns, odors, and flies.
- Improved base and 3 walls makes manure easier to access and to cover.
- Spread on pastures in growing season.

**Composting**
- To compost manures add air to pile through mechanical turning or passive aeration.
- Stabilizes available nutrients, kills pathogens & weed seeds, reduces odor and volume.
- Aeration can be achieved with tractor, or with blower and pipe on grade or built into a slab.
- Cost = moderate to high depending on the complexity of the facility.

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**Field Application Guidelines for Solid Manure**

Apply manure to pastures in a manner and application timed to prevent pollution of streams and ditches and/or groundwater. Observe the following practices:
- Apply manure when fields are dry and not saturated, frozen or snow covered.
- Apply manure at a rate that does not exceed crop requirements. (Talk to a WCD planner to help you determine this rate)
- Apply manure between March 16th and September 30th.
- Sept 1st through March 15th: apply manure 100 feet back from streams and ditches
- March 15th through Sept 1st: apply manure 25 feet back from streams and ditches and then only if a vegetative filter strip is present.