



Conservation Information Sheet

Tips on MANURE MANAGEMENT

Manure

Reasons to Manage Livestock Manure

- ◆ Living in manure creates an unhealthy environment for horses and livestock. Poor health may mean more vet bills and increased feed bills.
- ◆ Leaving manure on the ground creates more mud.
- ◆ Manure is a breeding ground for insects, especially filth flies.
- ◆ Internal parasites hatch from manure as often as every three days, allowing for parasite reinfestation as soon as 24 hours after worming.
- ◆ Manure problems are inconvenient for you and unpleasant for your neighbors.
- ◆ Nutrient runoff from manure has a negative impact on the environment. It contaminates surface water and ground water, is detrimental to fish and other aquatic wildlife and fertilizes aquatic weeds.



On Disposal of Manure and Stall Waste

- ◆ Collect manure from confinement areas and stalls every one to three days.
- ◆ Cover stored manure with a roof or tarp.
- ◆ Compost manure and stall waste and apply to pastures, gardens and flower beds during the growing season (April through October). Follow this general rule of thumb when applying compost to pastures: Apply about half an inch at a time and no more than three to four inches per year.
- ◆ Give away composted manure to neighbors, community gardens, local garden clubs, nurseries and topsoil businesses. Advertise by word of mouth, put up a sign, or place announcements in local newsletters and papers. You can also add your name to the King Conservation District's Manure Share program. Visit www.kingcd.org or call 425-277-5581 ext. 105 for details.
- ◆ If the options listed above don't work for you, consider renting a container from a compost facility for monthly pickup.



For Successful Composting

- ◆ Choose a storage area on high, level ground as far away as possible from streams, lakes, rivers or other water bodies. Begin by building a pile of manure and stall waste that is at least three feet tall.
- ◆ Cover the pile or area with a roof, tarp or sheet of plastic (a cover keeps it from getting too wet in the winter or dried out in the summer).
- ◆ Keep the pile as damp as a wrung out sponge — no wetter or drier!
- ◆ To get air into the pile, turn it by hand, with a tractor or by inserting a few PVC pipes into the center of the pile like chimneys. (You may want to drill holes in the sides of the PVC pipes to increase air flow.)
- ◆ When the pile gets as big as you want it for manageability, start a second pile and allow the first to continue composting.
- ◆ You can add garden waste and lawn clippings to your compost, but don't let grass clippings clump together — spread clippings out so air can permeate through them. Kitchen scraps are best managed in a worm bin so that you don't attract rats or other unwanted pests. Use only herbivore manure in your composting system. Carnivores, such as our household dogs and cats, may share similar pathogens with humans so their manure needs to be handled and treated differently.

Composting

Build A Simple Backyard Bin

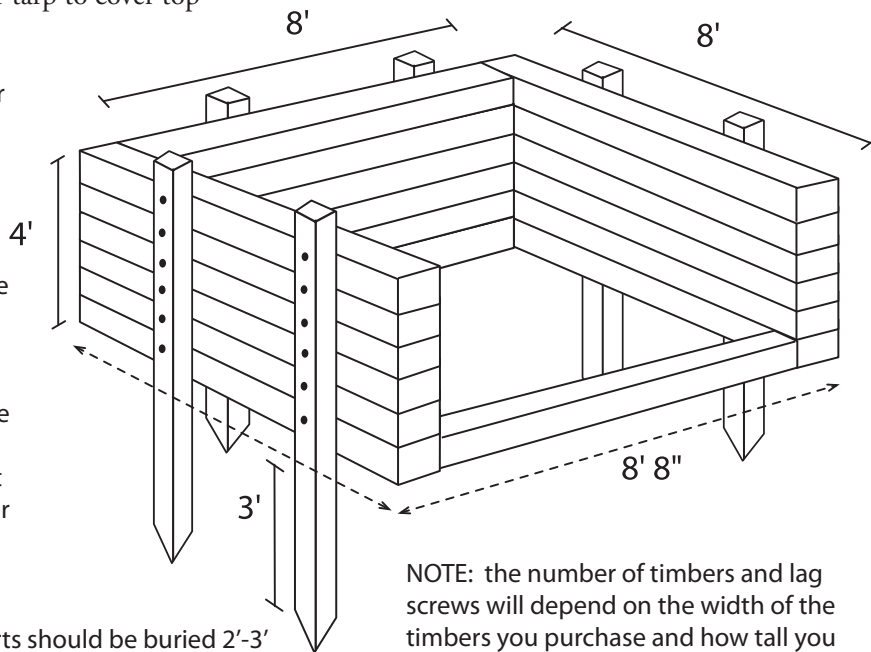
Note: This bin is not designed to withstand the impact of a tractor. Manure should be turned by hand.

For two 4' x 8' x 8' bins, the following list of supplies and equipment are needed:

- 70 - 8' landscape timbers
- 10 - 6' - 6" x 6" pressure treated posts (or similar wood)
- post hole digger
- 140 - 5/16" x 5 1/2" lag screws
- drill and bit (1/4" - 5" long)
- ratchet and socket set
- carpenter's level
- power or hand saw
- tamping rod or similar tool
- plastic sheet or tarp to cover top

Repeat design for two- or three-stage systems. Three bins will allow you to have one bin where daily waste can be stored, another which is full and in the composting stage and a third for finished compost to be used at your leisure.

Supports should be buried 2'-3' for stability.



NOTE: the number of timbers and lag screws will depend on the width of the timbers you purchase and how tall you wish to make your bins.

Three Benefits of Composting

- A well-managed compost pile will reach temperatures high enough to kill fly larvae, weed seeds, parasites and pathogens.
- Composting can reduce the size of your manure pile by about 50 percent!
- Adding compost to soil supplies nutrients and supports essential soil bacteria. It also builds good soil structure and texture, increasing the amount of air that can infiltrate and the amount of water it can hold.

REMEMBER: Your compost system should smell "earthy" and not unpleasant. Odors and flies are associated with fresh manure and once manure is part of the composting process there shouldn't be a problem. If your compost is not heating up or if it has a bad odor, it means something is not composting properly. Check to be sure it is not too wet or too dry.

It's Finished!

Your compost could be ready to use in as little as one month, depending on how often you turn it and whether it stays damp. Most likely, it will take a couple months in the summer and three to five months in the winter when temperatures slow down the microbial activity. You will know your compost is ready when it has reduced in volume about 50 percent and the material looks evenly textured and crumbly like soil.

For Help

- King Conservation District can help you choose a manure management option suitable for your situation. We can also provide you with assistance in designing a composting bin or manure storage area. Call 425-277-5581 ext. 105 or visit www.kingcd.org
- The King County WSU Extension office also has resources on composting and manure management. Their Master Gardener program may be able to put you in touch with gardeners interested in using your livestock manure and stall waste. Contact them at 206-205-3100 or visit www.king.wsu.edu
- A good source for information on agricultural composting is the On-Farm Composting Handbook, distributed by Northeast Regional Agricultural Engineering Service. They can be reached by calling 607-255-7654 or visit www.nraes.org