

Composting Livestock Manure

BMP Factsheet

Regular collection of manure from stalls, paddocks, and confinement areas is essential to the health of your animals. Wherever there is manure, there are parasite larvae. The life cycle of all livestock parasites involves leaving the host animal via manure and then reinfesting a new host. The combination of dung and urine soaked bedding is a perfect medium for the proliferation of bacteria and flies.

For livestock owners, composting is an excellent manure management technique. Benefits of composting include:

- Reduction of parasite reinfestation of your animals. The heat generated in the composting process kills worm eggs.
- Elimination of fly breeding ground and corresponding reduction of number of flies.
- Production of an excellent fertilizer. Composting reduces the volume of waste, makes nutrients more available to plants and increases organic material in soils.



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 (BMP) Factsheets

Livestock Confinement	Pasture Management
Reducing Mud	Fencing-types and costs
Roof Runoff Structures	Water source options
Filter Strips and Buffers	Weed management
Manure Storage	Streamside plantings
Composting	Wetlands

- Pollution risk reduction. Regularly collecting and composting livestock waste reduces the chance of runoff from your property becoming contaminated and contributing to pollution of local surface and groundwater.
- Aesthetic improvements. Regularly collecting and composting livestock waste helps your property be more pleasing for you and your neighbors to look at and enjoy.

A high, level area of your property should be selected for your compost operation. Don't collect your livestock waste in a low lying area or it will turn into a soggy mess. A location that's convenient to your stall and paddock areas will make the chore of cleaning up easier and less time consuming.

A three-pile compost system works best; one ready to spread, one in the process of decomposition, and one to which fresh manure is being added daily. Bins should be built to contain the piles. Landscape timbers work well for this purpose.

By following a few simple management techniques, composting of livestock waste can be greatly enhanced. Optimum composting rates can be attained by ensuring that proper moisture, carbon, and oxygen needs are met in order for the microorganisms to break down the manure into a

soil-like material. The compost should be moist enough that it is easy to ball up in your hand, but not so moist that it drips. Cover your compost pile with a tarp to prevent it from becoming too soggy in the winter or too dried out in the summer. A tarp also prevents rain from washing out valuable nutrients, which, when allowed to leach out, can contribute to surface and ground water contamination.

During dry summer months, you can use a water hose to apply extra moisture to the pile. Regular turning of the waste pile ensures that sufficient oxygen throughout the pile feeds the beneficial microorganisms that work to decompose the pile. Without a front-end loader, it is not easy to turn a large compost pile. One solution is to insert perforated PVC pipe into the pile while it is being built, so that oxygen is able to penetrate to the middle of the pile.

Depending on the management of the pile and the factors discussed, the process of decomposition of your manure pile can take anywhere from two weeks to three months or more, and the quality of the resulting product will vary.

For more information on composting and bin design go to www.whatcomcd.org
or call 360-354-2035 x3.



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