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HORSE MANURE COMPOST

Why compost? Learn more about the benefits of better manure management and get essential tips for reusing manure in ways that benefit you, your horses and the environment.

A Best Practices Guide for Manure Management



SAN MATEO RESOURCE CONSERVATION DISTRICT



BENEFITS OF ONSITE COMPOSTING

Horse manure is a valuable resource! It can be turned into nutrient-rich compost for farms, gardens and home landscaping. Composting manure can help horse owners, waterways and wildlife by:

- Decreasing waste volume by up to 50 percent
- Keeping nutrients on site to build soil, pasture and crop health
- Reducing the potential risk of surface and ground water contamination
- Decreasing the amount of waste going to the landfill
- Reducing parasite transmission between horses
- Cutting down on odors
- Reducing fly breeding grounds

TIPS

KNOW YOUR VOLUME

• Measure how much waste you have so you know what kind of composting system to use -- a 1,000-pound horse creates about 0.75 cubic feet of manure and 1 cubic foot of bedding each day.

CREATE LESS WASTE

• Use pelleted wood or mini shavings to reduce the volume of bedding needed and disposed of.

MIND YOUR MATERIALS

• Composting is most successful with the right balance of carbon (hay, bedding) nitrogen (manure, fresh grass clippings, food scraps), water and air. Horse manure is generally well balanced for composting. Depending on how much bedding is added, more nitrogen-rich materials may be needed.

TEST FINISHED COMPOST

• When getting started it can be helpful to send your finished compost for a lab analysis to better understand the levels of various nutrients and to make sure you have a healthy compost.

Contact the San Mateo Resource Conservation District to learn more about how you can improve your manure management.

sanmateorcd.org/project/manure-management | 650-712-7765 | info@sanmateoRCD.org

BEST PRACTICES

WATER

The ideal moisture level is between 50-60 percent, like a wrung-out sponge. Keeping it in this range is key to a successful compost pile. Add water if needed.

AERATION

Turning the pile is necessary to add oxygen. Piles can be turned up to three times a week to help speed up the decomposition process.

TIME

Compost is finished when it reaches ambient air temperature, smells earthy and is relatively even textured. This can take from four to eight weeks or more.

TEMPERATURE

The ideal temperature is between 122-145°F. If the pile reaches 140°F+, it should be turned before it gets any hotter. The pile will heat up as decomposition starts. Insert a compost thermometer to monitor the temperature daily.

REGULATIONS

Be aware of required setbacks from creeks and streams as well as other manure management rules.

PLACEMENT

Put compost on a concrete pad or area of compacted soil, and avoid steep slopes or highly erodible areas.

EQUIPMENT

Depending on the

quantity of

manure, you may

need a tractor with a bucket.

FUTURE NEEDS

Build a system that can accommodate any future increase in horse numbers.

PROTECT WATERWAYS

Cover manure and compost piles to prevent nutrient and pathogen runoff.

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TYPES OF COMPOST SYSTEMS

Volume matters in determining what system will work best for your operation.

These work best for smaller operations



- A **pile** is a mound of manure with no confined edges nor a confined structure.
- A manure **bunker** is a physical structure with three sides, and sometimes a roof.
- A three-bin system is a type of manure bunker with three separate stalls for different composting stages.

Because larger operations generate more manure, these systems are helpful for managing larger volumes of manure.

- A passively aerated pile has a PVC pipe with holes drilled throughout to circulate air into the center of the pile on top of it. The PVC pipe will stick out on either side to allow air flow in and out. The pile may still need to be turned occasionally.
- Passive piles such as these must be reviewed by the Department of Environmental Health to prevent odor and fly breeding problems.
- A forced aeration static pile has a blower that forces air through pipes into the pile when triggered by an attached thermometer.
- A windrow is a long, narrow pile between 3-5 feet wide and no more than 12 feet tall. Either a front-end loader or a windrow turner are required to turn it consistently.

Piles and bunkers need to be at least 3 feet square to maintain proper temperature.

TOO MUCH MANURE TO MANAGE?

LOCAL HAULING OPTIONS

- Green Truck Debris Box Service
- American Debris Box
- Peninsula Debris Box (serves the bayside of San Mateo County and takes manure to Wheeler Farms)

OFFSITE COMPOSTING

If you don't have the space for onsite compost, consider sending it to a local facility that can keep it out of the landfill and put it to good use.

- Wheeler Farms / Equine Waste Management (San Gregorio)
- Greenwaste (curbside/roadside pick-up in Woodside and Portola Valley)

NEED MORE HELP?

Check out our Horse Manure Management webpage at sanmateorcd.org/project/manuremanagement.

Call or email us with questions. info@sanmateoRCD.org (650)712-7765

*This guide has been adapted from "Compost Horse Manure" written by Gibbs Ferris and published by the Council of Bay Area Resource Conservation Districts.

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