

Snohomish Conservation District

MANAGING HORSE MANURE

You love your home. You love your property. And, of course, you love your horses. There's just one problem: the manure is piling up. It's time to start managing for manure, and we're here to help!



One horse can produce up to 50 lbs of waste a day!

WHY MANAGE MANURE?

- Reduce mud, parasite infestation, and flies.
- Prevent nutrients from washing away into nearby waterbodies and ultimately into Puget Sound.
- Protect our waterways from fecal bacteria which can harm water quality, aquaculture farming (like oysters), and wildlife.

HOW TO Manage Manure**STEP 1: COLLECT**

Pick up manure in stalls and heavy-use areas every 1-3 days.

STEP 2: STORE

Create an efficient and well-designed storage system.

- Pick a location on higher elevation, level ground, away from waterways, and near where you regularly collect manure.
 - Assume 3 8x8 bins 4' tall will hold 6 months of manure for up to 3 horses (depending on bedding)
- Build 2-3 storage bins out of your preferred materials (e.g., eco blocks, treated wood).
- Place bins on concrete, gravel, or grass.
- Cover with roof or tarps.

STEP 2.5: WHAT ABOUT COMPOSTING?

Composting is simply managing the natural decomposition process to efficiently break down your stored manure. Composting takes more effort, but it also has many benefits:

- Composting eliminates manure odors. It should smell earthy!
- High composting temperatures kill most pathogens and weed seeds and minimize fly breeding grounds.
- You can compost horse bedding with manure. Note: bedding should not be applied to pastures without this step.
- Compost is a good "slow release" nutrient amendment for pastures or gardens. This means compost releases plant-usable nutrients gradually, which reduces runoff into waterways.

STEP 3: APPLY

Fertilize your pasture or garden with manure or compost.

- Test soil to determine fertilizer needs.
- Apply ¼" per application up to 3-4" per growing season (April-Oct).

LEARN MORE

Contact the Farm Planning team at 425-335-5634 or email assistance@snohomishcd.org.



HOW TO COMPOST STORED MANURE

STEP 1: FILL BINS

Add manure (and bedding) to the first bin in storage system until full. Fresh waste can then go in the next bin.

- Composting can take 2-6 months (summer is faster than winter).
- Adding bedding, especially wood shavings, will increase carbon in your compost and slow down the process.
- Bedding that is more finely “chopped” (e.g., sawdust or pellets versus shavings) breaks down faster.



STEP 2: MANAGE CONDITIONS

Add water and oxygen as needed for microbes.

- Covering manure is critical. Waterlogged compost smells bad and decomposes slowly.
- Compost should be about as damp as a wrung-out sponge.
- Add water using a spray nozzle on a garden hose when the pile is too dry.
- Good airflow helps speed up decomposition. Add PVC pipes to the pile like chimneys and/or turn the pile regularly.

STEP 3: WATCH TEMPERATURES

Use a long-stemmed thermometer to check compost temperature.

- To kill weed seeds and pathogens the temperature needs to be at 130-160 oF for at least 3 days.
- Hot temperatures are usually at the center of the pile, so turn the pile over occasionally to move the “outside” manure into the hot center.
- Once compost has returned to ambient air temperatures it should be ready to apply.

COMPOST TROUBLESHOOTING

Problem	Likely Reason	Solution
Pile contains lots of fresh manure but won't heat up.	<ol style="list-style-type: none"> 1. Too dry—cannot squeeze water from compost. 2. Too wet—compost looks or feels soggy. 3. Outside temperature is too cold. 	<ol style="list-style-type: none"> 1. Add water. 2. Apply additional cover to protect from rainfall and turn pile. 3. Wait for warmer temperatures and turn pile as needed.
Pile is heating up but temperature falls consistently over several days.	<ol style="list-style-type: none"> 1. Pile is settling, air flow is limited. 2. Low moisture. 	<ol style="list-style-type: none"> 1. Turn pile. 2. Add water.
Pile is too hot (over 160 oF).	Too dry.	Add water.
Pile has gone through 2+ heating cycles but there's still a lot of undecomposed bedding.	Wood shavings degrade slowly.	Give more time to decompose but make sure the pile is moist. Can add old compost to speed up the process.
Pile smells bad.	Too wet.	Apply additional cover, turn pile, and add dry ingredients (e.g., newspaper, straw, bedding).
Pile is on a sod/grass base and it's growing through the compost.	The grass is using the compost nutrients.	Change pile width and placement kill grass/sod or put on an impermeable base

MEET YOUR CONSERVATION DISTRICT

Conservation districts partner with residents to steward land, water, forests, wildlife and related natural resources. To learn more about how your local conservation district can work with you, visit our website at snohomishcd.org.