



Manure Management Calendar

Agriculture Conservation Education



January - March

No manure is applied to frozen or saturated soils, to frequently flooded land, or on days when heavy rains are forecast. Manure is applied at low rates on land with well-drained soil and actively growing grass. In the Willamette Valley grass begins to grow in March.

June - August

Manure is applied to pastures and hay ground to match plant needs. Irrigation is used to water-in nutrients using good irrigation water management. Some animals will not graze pastures with freshly applied manure. In this situation, the manager has two or more pastures to graze animals. If the manure has not been composted to kill parasites, the deworming program is continued.

November - December

No manure is applied. Manure pile is covered. Animal yards and pastures are scouted for problem areas that have runoff, standing water, or mud.

April - May

Manure from the storage facility is tested for nutrients and applied to match plant needs. Manure buildup is removed from animal yards and is spread on pastures, cropland, and gardens. On annually tilled land, manure is applied and immediately incorporated to retain nutrients.

September - October

This is the critical time of year for managing manure in an environmentally sound manner. Soil conditions produce nitrates that may leach into water with the first fall rains and continue through the winter. No manure is applied to annual crops where growth has slowed or stopped. Some manure may be applied to growing grasses or a cover crop, according to soil test recommendations.

DID YOU KNOW?

You are responsible for managing manure to protect surface water and groundwater. Federal and state laws forbid discharging animal wastes into water. If you are selling your property, manure management facilities can be an asset and increase your property values under today's regulatory requirements.



CONTACT

OSU Ext. Service Small Farms Program
smallfarms.oregonstate.edu
971.612.0027

Natural Resources Conservation Service
www.nrcs.usda.gov
971.273.4816

Marion Soil & Water Conservation District
www.marionswcd.net
503.949.1518

Manure Management Practices



TAKE THESE STEPS FOR GOOD MANURE MANAGEMENT



COLLECT

Collect manure regularly - every 1 to 3 days - to reduce muddy areas, fly breeding sites, and polluted runoff. Use a shovel, manure fork, wheelbarrow, or tractor to collect raw manure from stalls, animal yards, and pastures.



COVER

Store and cover manure to keep nutrients from leaching away. For few animals, place a watertight tarp over and under the manure pile, on a site that's high and dry. If you have many animals, install a roofed storage structure with a watertight floor and 2 to 3 walls. Locate facilities more than 100 feet from wetlands, streams, or ditches and above floodplains.



COMPOST

Compost is a valuable resource. Composting may reduce a manure pile by half, produce a stable fertilizer, and kill animal parasites. For effective composting, build the pile to at least 3 feet tall by 3 feet wide, aerate the pile by turning it or inserting perforated pipes through the center, and water the pile until it is moist, but not saturated. You should not be able to wring water from a handful of compost. These steps should raise the temperature to 131°F for at least 3 days in a row to kill worm eggs. Finished compost will smell earthy and feel cool to the touch.



STOCKPILE

Stockpile manure from October to April when soils are saturated or frozen and potential for runoff is high. The storage area should be big enough to store all the manure until it can be used as a fertilizer.



SPACE

Estimated floor space needed for 6 months storage of average bedding in 5-ft high pile:

Livestock	Area Needed*
horse	72 sq ft
cattle	72 sq ft
sheep	6 sq ft
pig	12 sq ft
goat	6 sq ft
llama	12 sq ft

*Actual numbers will depend on bedding used, animal weight, and height of the manure pile. To calculate your manure storage facility needs, read the [Manure Storage and Compost Facilities publication](#) from Washington County SWCD.



SPREAD

Spread manure or compost for use as a fertilizer on growing plants during the growing season. You'll need a tractor and manure spreader or a pickup truck and rake to spread manure.



MATCH

Applying too much manure may result in lost fertilizer dollars, dangerous nutrient levels for animal health, and nutrients and bacteria leaching into water.

Phosphorous Needs/YR for 1 Acre Pasture*

Manure from:

- one 1,000-lb horse
- one 1,000-lb beef cow
- twelve 100-lb sheep
- three 150-lb pigs
- six 100-lb goats
- four 300-lb llamas

*Actual numbers will depend on a soil test, crop yield, and management conditions.

More manure than your land can handle?

Consider increasing your pasture production, buying or renting more land, or reducing the number of animals you own.