

## Manure Happens! Helping Horse Owners Manage Manure

Throughout America, horses have galloped their way into many of our hearts and homesteads. Ohio has made its mark on the map as one of the top states in horse populations, and here in Geauga County, we are estimated to have well over 8,000 horses. In the utopia ranges of the west, wild horses might roam up to 25 miles a day in search of food, water, and shelter. This continual movement over miles of landscape allows their manure and urine to quickly dissipate. But confined within our fences, domestic horses can chew down, tear up, and compact a piece of land like no other in record-breaking time. Soon their green pastures become laden with waste, mud, and sediment. The commonality of every horse owner is the challenge of managing manure. Regardless of the stable size or situation, there are always steps we can take to improve the health of our soil and water by better managing our horse manure.

### Manure Mathematics

The average horse produces about 60 pounds of manure and 2.5 gallons of urine every day. Once soaked into the bedding this waste can double or even triple, leaving you with nine tons of waste per year. That's 25 cubic yards per year for one horse, which is equivalent to a ten foot by ten foot room of horse poop nearly seven feet high. Now that's a bunch of horse manure! Weather can also intensify the problem. Case in point - this year's winter wonderland has been replaced by a season of sogginess. The unfrozen ground continues to bring the challenges of saturated soils and muddy mayhem into our horse properties and pastures. Though it may seem overwhelming and often falls to the bottom of the list, planning for (and paying for!) manure management is an essential part of owning horses. As horse lovers and land stewards, let's pull up our muck boots and revel in the wisdom of two fitting proverbs: a little planning goes along way and practice makes perfect!

### Potential Pollutants

What we do on our property indeed affects our neighbors and the health of our nearby streams, lakes, and rivers. This is because as rain and snowmelt flows across the land, this "stormwater" picks up nonpoint source pollutants in its path as it travels to the nearest stream or as it soaks into the ground. Water that flows across horse properties picks up nutrients, ammonia, salts, and bacteria from manure and sediments from bare soil. These excessive nutrients, sediments, and pollutants in runoff can cause undesirable plant growth, harmful algal blooms, decreased oxygen levels, fish kills, and other potential animal and human health risks in nearby freshwater bodies. Making small changes to our operations and behaviors can help capture stormwater, filter pollutants, improve soil health, and ultimately keep our water safe and horses healthy.



***Properly managing manure and reducing erosion and runoff from horse properties also promotes horse health, chore efficiency, clean water, good neighbor relations, and property aesthetics.***

## The Golden Rules

The good news is that planning for manure not only protects our soil and water resources, but ultimately benefits *you*! The more you effectively manage manure, the more you will also be improving chore efficiency, preserving better pastures, protecting horse health, improving your property aesthetics, decreasing pollutants, eliminating complaints, and ultimately saving your time and money. Throughout the process of evaluating your equine facility and developing a practical, functional manure management plan, let the following golden rules guide your decisions:

**1. Keep clean water clean.** Use the natural flow and topography of your property along with grass ditches, berms, and gutters to divert clean runoff from your paddocks, barn, manure storage, and heavy use areas. Capture clean roof water in gutters and use downspouts to route it away from barnyard mud and manure. Management of clean water is especially important near streams and drainage ways.

**2. Keep your heavy use areas high and dry.** Review your land's slopes, drainage, soils, vegetation, and proximity to streams, neighbors, wells, and waterways. Keep confinement areas out of floodplains and use buffer strips to separate paddocks, barnyard, and manure storage areas from waterways.

**3. Manage contaminated runoff.** Ensure runoff from manure areas does not enter creeks and streams by diverting it to low-gradient vegetative buffers, keeping manure piles covered, and removing manure regularly.

## We're Here to Help

As you begin to "pick through" to the countless options for handling and managing manure, remember that the planning component is critical. Step back and attempt to evaluate your operation through a new set of eyes. Research options and explore ideas. Then, most importantly, ask others for help! Geauga Soil and Water Conservation District and USDA Natural Resources Conservation Service staff can offer technical assistance, advice, and property recommendations at no cost. They are happy to share their knowledge, resources, and experience to provide you with some practical solutions to help you better manage your resources. You can contact the District at 440.834.1122 or [geaugaswcd.com](http://geaugaswcd.com). Remember that implementing new practices doesn't need to be excessively costly. Sometimes a slight change will achieve the desired result. Consider doing things in steps or phases and don't get discouraged if you can't afford the "Cadillac" version. Perhaps the "Dodge Omni" option will get the job done for now. Commit to doing the best you can with what you have and accept that horse ownership is a journey. The District is here to help you manage manure so you'll be enjoying happier trails!