



Maryland Department of the  
Environment

## **FACTS ABOUT: Composting and Maryland's Horse Industry**

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### **MARYLAND'S HORSE INDUSTRY**

Horses have a long history of economic and cultural significance in Maryland. The State is home to the highest population of horses per square acre of any in the U.S. A 2010 Horse Census conducted by Maryland Horse Industry Board and USDA National Agricultural Statistics Service revealed the following additional facts about Maryland's horse population:

- There were an estimated 79,100 horses in Maryland; 37% of these are race horse breeds and 50% are light horse breeds.
- Horses are kept at over 16,000 facilities in Maryland. The greatest number of horses is kept at residences and other places for personal use, with boarding, training or riding places second and race-related places third.

Maryland is also home to 485 licensed stables offering services to the public, as well as 7 major racing places (5 tracks and 2 training centers). Baltimore, Montgomery, and Frederick counties have the greatest numbers of horses and licensed stables.

### **HORSE MANURE GENERATION AND CURRENT PRACTICES**

Though exact amounts will vary, an average 1,000 lb horse generates 45 – 70 lbs of manure and bedding each day. At 60 lbs of waste per day, this would equal almost 11 tons per horse, per year, or 784,000 tons per year for all horses in Maryland (excluding ponies and donkeys). This is a significant source of compostable material; in comparison, about 950,000 tons of food scraps were generated in 2012 and 880,000 tons of yard trimmings.

One method of managing these materials is composting. Composting decreases odors and reduces volume by 40 – 60%. It also yields a stable finished product that releases nutrients slowly over time. Compost can be used as a soil amendment in landscaping or on pastures and crop fields. Quality compost also has value to homeowners and landscapers; horse owners may be able to sell their compost, turning a waste into an asset.

A 2008 survey from Montgomery County indicated that 70% of responding stable or horse farm owners had a need to manage horse manure and bedding, either through hauling off site, recycling, or giving away. While some respondents already composted



manure, 14% gave it away and 25% had it hauled off site, almost always at a price. Most respondents (61%) stated that they would participate in a free manure recycling program and most of these stated that they would or might still participate if a small fee was charged. This information suggests that there is additional need for both on- and off-site options for composting horse manure.

## **COMPOSTING HORSE MANURE**

The composting process works best when the pile has the optimal moisture, oxygen, and carbon to nitrogen ratio. Horse manure is successfully being composted in Maryland and throughout the U.S. The material is generally fairly dry and high in carbon due to the wood or straw bedding. To speed the composting process, some horse owners may wish to add materials higher in nitrogen, such as food scraps or grass clippings.

### *Typical C:N of various feedstocks*

Horse manure	15 – 20:1
Wood chips (bedding)	700:1
Straw (bedding)	80:1
Stable waste (typical mix of manure and bedding)	50:1
Mixed food scraps	15:1
Ideal ratio for composting	25 – 30:1

The following resources provide more information on determining the best option for managing horse manure and beginning a composting program:

- Maryland Department of Agriculture, [Horse Manure Management](#)
- Maryland Department of Agriculture, [Composting Horse Manure](#)
- Washington State University Cooperative Extension, [A Guide to Composting Horse Manure](#).

NOTE: Before spreading manure or compost at an agricultural operation, be sure to consult MDA's nutrient management regulations and your nutrient management plan. Additional information about nutrient management requirements is available at the [MDA Nutrient Management Program Website](#).

