

Why is a Discussion About Horse Manure Important?

By Peter Moon, P.E.

Many years ago, I was involved with an agricultural waste management study conducted by King County, Washington. This study had several objectives – to estimate the:

- Number of horses in the county,
- Types, quantities and characteristics of bedding used,
- Volume of waste generated;
- Methods employed to manage this waste; and
- Nature and magnitude of environmental impact that resulted from these practices.



At first glance, this seemed to me to be a relatively straightforward study, however it quickly became apparent that the answers were illusive and not forthcoming. Several methods were employed to determine the answers, including an extensive telephone survey of horse owners, a windshield survey in known horse communities, and direct sampling and laboratory testing of manure piles where permission to access the pile was (seldom) granted.

In the end, the results were very fuzzy with an estimated 30,000 horses in scattered areas throughout the county, mostly bedded on shavings (with a growing awareness of wood pellets as an alternative) and with manure mostly “piled out back”. While the environmental impact was difficult to measure, it became clear that virtually every watershed in the county was adversely impacted by nutrients originating on horse farms (i.e., non-point source pollution).

This study brought to my attention a critical need in the equine community, and from this was borne the early concept for the O2Compost Training Program. The Training Program took roughly ten years to conceive, develop, test and refine, and many people were directly and indirectly involved in this process. Historically, the O2Compost Training Program has been conducted remotely on a one-on-one basis. This year, we are pursuing our vision to conduct Group Training Programs at host facilities located in six regions throughout the country.

What brings all of this to mind is a recent study conducted by the American Horse Council that estimates the total number of horses in the United States to be approximately 9.2 million (<http://www.horsecouncil.org/ahcstats.html>). How this number was determined is anyone’s guess, but let’s – for the purpose of this discussion – assume that it is reasonably accurate. Given that one horse produces roughly one cubic yard of manure each and every month, it stands to reason that the total volume of manure produced in the United States is on the order of 9 million cubic yards per month. And this does not include the volume of bedding which can easily double or triple the total volume of manure depending on the type of bedding used.

Aside: For those not familiar with the “cubic yard” as a unit of measure, it is equal to a cube that is 3-feet wide by 3-feet long and 3-feet high. One cubic yard equals 27 cubic feet. A standard pick-up truck will hold 2 cubic yards, if mounded.

Now, I find a volume of 9 million cubic yards hard to imagine in real terms, so I did some internet research and learned that the Rose Bowl in Pasadena, California, would hold over 84 million gallons of water if filled to the brim. Given that there are approximately 200 gallons in a cubic yard, you could fill the Rose Bowl roughly 22 times with horse manure each month, or 265 times a year.



Another way to look at it is this: if a year's worth of horse manure were to be stacked vertically on a football field, from end zone to end zone and sideline to sideline, the pile would stand 10 miles high – that's higher than commercial airliners fly. Now I think you'll agree, that's a lot of manure.

Add to that the amount of bedding used and you can begin to see the order of magnitude of the problem – or opportunity – that we face. This volume of manure also represents a tremendous quantity of nutrients that can either be mismanaged and allowed to impact our fresh water resources and aquatic wildlife, or properly managed and utilized in a wide array of applications that help heal the earth.

The message that I am trying to leave you with is this:

Each of us impacts the world we live in, either negatively or positively.

This is especially true for those of us who own horses and other livestock. Properly managing horse manure is our responsibility! The impact from horse manure can be negative if we disregard our responsibilities to the earth. Alternatively, the impact can be positive and financially rewarding if we view manure as a resource and an opportunity. Composting is easy, when you know what you are doing, and with the O2Compost Training Program your success is guaranteed.

Composting, in my opinion, is the most effective and profitable means to properly manage horse manure, to support sustainable agriculture, and to leave the world a better place for the generations that will follow ours. I invite you to begin composting - to be part of the solution.

**To learn all about horse manure composting,
visit www.o2compost.com or call 800-611-3718.**

O2Compost specializes in compost system design and operator training for those who are committed to properly managing their organic wastes. We can show you how to 1) take the guess work out of learning to compost correctly; 2) mitigate impacts to the environments and resolve regulatory compliance problems; and 3) convert an operating expense into a new profit center for your farm or business.

Aeration is the key to successful composting and is considered by most regulating agencies to be the **Best Management Practice** of choice. This web site introduces the basic concepts of aerated composting and provides numerous examples of systems installed throughout the USA, Canada and abroad. It also provides discussions on alternative animal bedding products, benefits derived from using high-quality compost, and rapidly increasing product-market and compost-business opportunities.