#### **EnivroHorse**

# The Real Poop: A Discussion of Horse Manure on Trails By By Cyla Allison, Ph.D

Remember bathroom jokes?

Those of you who have small children know that bathroom functions are the source of much hilarity to 7-year-olds and reaches its peak joke status with 4th graders who live in what I refer to as the Age of Farts. The importance of bathroom humor then faces a steady decline (for most of us) until talking about poop degenerates to a steady chuckle for the rest of our lives. If you talk to a sociologist about this culturally pervasive preoccupation, he will probably explain that the phenomenon serves a purpose: We learn to hide our bathroom functions, dispose of our excretions and build a whole industry around keeping ourselves clean because human excrement can spread disease.

But the poop taboo hurts equestrian activities when socially appropriate responses to humans and dogs and cats is applied to horses. And because bathroom hygiene is inculcated into us so completely, we find it difficult to understand that horse manure is not the same. Our society is so far removed from interaction with large animals that when a person sees a horse in a parade or on the trail, he is likely to have a strong reflexive response. He reverts to YUK!

The YUK! Reflex is one of the hardest attitudes to combat in our lives as horse people. The fellow non equestrian trail user is likely to say, "My mind is made up; don't you go and try to change it with those facts of yours."

But we are going to try anyhow.

#### Here are some facts to look at:

Livestock volume in the U.S.

Cows 104 million Swine 60 million Sheep 8 million Poultry 7790 billion Horses 6.9 million

If we look at the United States, we can see how much manure this country has had to recycle. And we are not counting the more than 286 million people who also live in this country. Furthermore, we can only use our imagination to try to comprehend all of the birds, deer, bear, moose, squirrels who go about pooping wherever they want on the ground as well as fish, turtles and crustaceans who leave their excretions behind in our rivers, lakes and oceans. When we give the topic a good think we can see that horse manure on a trail is a drop in the bucket when it comes to poop.

## FACT: All living things make manure

-even trees drop their leaves and needles and flowers die back to biodegrade. People make manure; millions of sparrows make manure and everybody you will see today makes manure. In fact, if a living being stops making manure, he is soon dead.

All horse manure is biodegradable-if you leave it on the trail long enough it becomes dirt. But mankind leaves behind another kind of debris that will not biodegrade, even if it is left on the trail for years. That kind of debris is our trash, our abandoned cars, our plastic "pure" water bottles, our used tires. We fill up huge landfills; invest millions studying what to do with our garbage. For example, we have a major problem with disposable diapers taking up precious landfill space. The baby's poop is not so bad enough, but the means we use to catch it is even worse. Interesting conundrum is it not?

Horse manure on a trail is so much simpler!

Remember your 4th grader who was snickering about bathroom functions? He is now a grown up hiking or biking on the trail. He is applying what he learned about his own excrement (YUK!) to horses (which seems logical to him) and is not interested in the

# FACT: horse manure is recycled grass.

He does not think that, unlike a plastic bag, if you leave manure on the ground, it will quickly dry out and disappear with no intervention on the part of mankind. The human excrement of debris and trash never goes away and cannot recycle itself as can horse manure.

#### Some more FACTS:

## One Horse

In one full 24-hour day (of which he never is on the trail)
Excretes 10 lbs. (2 gallons) of urine of which 7.5 lbs (1.5 gallons) is water
The 2 quarts of active solids are composed of the following:

# MANURE PRODUCTION & CHARACTERISTICS Per 1000 lb Live Animal Mass per Day

Total Manure	51 lbs
·Urine ·Density ·Total Solids ·Volatile Solids	10 63 15 10
·Orthophosphorus ·Potassium ·Calcium ·Sulfur	0.019 0.25 0.29 0.044
·Sodium ·Chloride and Lead ·Iron ·Boron	0.036  0.016 0.0012
·Molybdenum ·Zinc ·Copper ·Cadmium	0.00083 0.0022 0.00053

·Nickel	0.000051	
·Kjeldahl Nitrogen	0.00062	
No Ammonia Nitrogen	0.30	

This chart tells you what is in the urine and manure; I doubt we could be so sure what is in dog poop or people manure. Horses eat a limited diet; they are strict vegetarians and turn up their noses at anything more exotic than a carrot. Compare that to the diet of your average yellow Labrador or male couch potato. It is certain that what comes out cannot be different from what goes in. Horse poop is simply recycled grass.

Compare this fact to what we humans do to our lands and water. Where I live is a shallow river near Brookhaven National Laboratory. The river is polluted with radioactive waste; we are warned not to eat any deer that have eaten the grass or drunk out of the stream nearby. (Newsday, Editorial Feb. 20, p. A30) This is human pollution that can really make our children and us sick.

#### **Another fact:**

ONE HORSE in one full 24-hour period excretes 50 lbs of manure of which 12.5 lbs is active solid. The rest is water - the contents are the same as in the chart above.

At first 50 lbs. seems too much to have out there-then we find that we are talking about 12.5 lbs. because the rest is water. Of the 12.5 lbs. the contents are the same as in urine. Remember, obviously, no horse is on the trail seven days a week, 24 hours a day. So only a small measure is ever deposited on a trail.

If you are still not convinced, go to your local nursery or large hardware store. You will see stacks and stacks of bagged fertilizer for sale. You will see hundreds of bags of topsoil. Those bags of topsoil and fertilizer start out as manure; then Scotts or some other company age it up, concentrate it, add some chemicals to it, put it into big plastic bags so you feel close to nature when you reach your hands right in there and spread it around your houseplants or gardens. I've called Scotts many times to try to get them to tell me a little more about what was in their topsoil and fertilizer products, but they were not willing to give out much information. The largest listed ingredient in their "Turf Builder" is urea. Urea is-you guess it-a major ingredient in urine and manure. Urea is made up of those ingredients we showed you in the chart a couple of pages back. Scotts has instructions to tell you what to do in an emergency-- if you get their fertilizer in your eyes or inhale it. Compare instructions about how to handle this newly hazardous material to the raw stuff you started out with. Inhale horse manure or got it in your eyes? No toxic danger whatsoever.

Nevertheless, some people still feel that our big equines must leave pollution behind. They forget that Mother Nature knows how to handle the natural stuff.

**FACT:** One inch of rain on one acre of land provides 27,116.9 gallons of water. If we dilute the manure or urine a horse might deposit on a trail in the amount of rainwater deposited on that trail, we can see that our equine's natural contribution is simply the proverbial drop in the bucket.

Look at those cute nature photographs we love. You will notice that they feature the dog, the squirrel, the moose and other animals eating. Eating is ok. Our attitudinal problem becomes evident when we see that processed food pass out the other end.

Take this as an example: According to the Department of Environmental Conservation, between 5,000 and 10,000 deer live 24 hours a day on a property of about 9.4 square miles on Long Island. Compare their poop density to the manure left behind by a few trail riders a few times a week. I have not heard anyone saying we should ban the deer from there-and these Bambi's are running all over the woods and in the streams where they drink dropping their little poop pellets willy nilly. The deer don't even need a permit from the DEC or anybody. In Missouri on the Jack's Fork River, a state study found high bacteria levels in the water during the summer holidays. At first, the locals blamed the "rootin'-tootin'-poopin'" trail rides. An independent study funded by the Missouri Equine Council identified humans, not horses as the likely pollution source. The findings raised uproar with the canoeing industry.

Fact: "While E. Coli from a number of species, including humans, can cause intestinal disease under certain conditions, those of equine origin have not been shown to do so. 'On concentrated reflection, I can come up with no explanation why the horse should be singled out as a likely source of human disease. On the contrary, among domestic animals the horse is perhaps the least likely to play such a role." (Adda Quinn, "Does exposure to Horse Manure Pose a Significant Risk to Human Health." Envirohorse, quoting Dr. Wayne O. Kester.) What Dr. Kester is talking about is the Yuk! Factor. Yuk! has nothing to do with fact.

**Fact:** Horse manure does not spread disease. Horses are dead end hosts, just as are humans, for EEE, WEE and West Nile Virus. They do not spread Salmonella, Giardia or Cryptosporidium (see same article). As an example of extreme exposure to horse manure, consider the large animal veterinarian who often is "armpit deep under a horse's tail. Nevertheless, there has never been a documented case of veterinarians contracting illness as a result of this rather extreme exposure to horse manure." (Adda again) Deer, however, do spread the deer tick that is responsible for Lyme disease.

As horse enthusiasts, we have to remember that the general public does not experience horse manure the way that we do. If our horse takes a dump we observe the color and consistency and feel happy that the whole fragile system is working. Non-horse people are possessed by the YUK! Factor and identify horses as a major culprit. People don't see that they themselves are "dirty" and likely to infect themselves. They don't see how their own non-biodegradable plastic and metal debris as well as their own poop poses a real danger to the trail and environment.

#### The Pitch

Let's try to educate others to stop being so anal about horse manure. It is a clean, natural product used by landscapers, vineyards, farmers and big companies like Scotts to provide topsoil, fertilizer and other gardening products. Poop is part of the natural cycle of life. Take a look around the produce section of your grocery store or eye those huge beautiful pumpkins in the field where our children seek out the best Halloween example, and know that they were grown in poop. Know that the best rejuvenation for your roses is a spade full of horse manure. The tomatoes and dahlias from my garden have been wowing people for years. Guess what I fertilize with?

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