

Using Manure in the Garden

By Heather Bryant, Extension Educator, Agricultural Resources

As the weather gets warmer and the gardening season approaches I have received several questions about using animal manures in the garden. Most of the manure questions have concerned food safety. By and large, animal manures are an excellent local and natural source of nutrients for your garden. They also provide organic matter which is important for good soil structure. However, there are a couple of things you want to keep in mind.

First *E. coli*, *Listeria*, and *Salmonella* bacteria may be present in fresh manure, particularly when temperatures are cool and the manure remains moist. Parasites such as roundworms and tapeworms may also be present. Plant surfaces that come into contact with these manures may then be contaminated as well.

Instead of fresh manure, a better option is to use composted or well rotted manures, and incorporate them into your soil one month before you plant your crops. Manures, even well composted manures, will stimulate microbial activity in the soil which could impede germination or plant growth in the short term. If you do use fresh manure, spread and incorporate it 120 days before you plan to harvest any crops where the edible portion may come into contact with the soil.

Also consider where the manure came from. Are the animals healthy and do you know how the manure has been handled? Keep your pets out of the garden as much as possible. Animals such as cats and dogs may carry parasites that will be more easily transferred to humans than the parasites in other types of manure. Also be aware that some manure, particularly fresh manure, will contain viable weed seeds.

Naturally, washing your hands after gardening will minimize your risk, and is a recommended practice whether you are using manures or not. Washing and peeling all the vegetables you plan to eat raw is also important, particularly if you use manures, chemical fertilizers, or pesticides.

Sensitivity to these pathogens, like the bacteria and parasites listed above, can vary from person to person, and those who should be particularly aware are pregnant women, young children, the elderly, or people with illnesses which suppress their immune system.

People in a high risk category might consider limiting their manure use to crops they will not eat (jack-o-lanterns and flowers), crops they will cook, or crops where the edible portions rarely touch the ground (peppers).

Finally, remember that using manures can, over time, lead to a build up of phosphorus in your soil. This is not harmful to your vegetables, but if the levels are high enough, the phosphorus can leach into lakes and streams causing water quality problems. If you have never done so before, or you have not done so in a number of years, consider getting your soil tested. More information on soil testing can be found at this website <http://extension.unh.edu/Agric/AGPDTS/SoilTest.htm>

Like many safety issues, awareness is your best defense. If you have further questions on this topic please call 787-6944, and have a wonderful gardening season.

Look for next week's column by our County Forester, David Falkenham.