Fall is a Good Time to Think about Erosion Control

By Heather Bryant, UNHCE Agricultural Extension Educator

I lived in Madagascar for several years and my first glimpse of the island is burned into my mind. I looked out the airplane window and saw a giant red ring around the island. You can see it from outer space too, and in fact one astronaut said it looked like Madagascar was bleeding. The ring is not blood of course; it's actually red soil that has eroded into the ocean because of a steep landscape coupled with deforestation and agricultural practices that cannot adequately hold the soil. In some parts of Madagascar if you clear a piece of land today, you can expect to grow crops for 2-3 years before the soil is completely worn out. In that way the ring is a little like blood; the soil that erodes into the ocean takes with it the nutrients and organic matter that the crops need.

New Hampshire, like many places, is luckier than Madagascar in this regard; erosion is a concern here, but it works more slowly and we have developed options for minimizing it. In fact if you live near a farm you might have seen erosion control measures and not even noticed them. Once you understand them you can use scaled down versions of these measures in your own gardens and yards saving you the time and money it will take to repair problems down the road.

Many farmers have been out plowing and planting in the last couple of weeks. They are planting winter cover crops. Cover crops do just that, they cover the soil, protecting it from hard rains and slowing the process of erosion. Their roots trap sediments and nutrients that might otherwise run from the field into nearby streams and lakes. Often the crop is a "winter annual" like winter rye. Winter annuals are planted in the late summer or early fall, grow quickly for a short period of time and then die over the winter, leaving behind a crop residue that the farmer can chop up and incorporate into the soil in the spring. This residue can then provide organic matter and nutrients for the regular crop decreasing fertilizer costs next spring.

Cover crops are also commonly used to control erosion and improve the nutrient status of the soil during times the farmer intends to leave the field fallow or out of production. Mulches are used in much the same way around crops that are getting established or where the farmer wants to control weeds with less tillage or without tillage entirely. You may have noticed that not all fields are plowed in straight lines. The farmer is plowing along the contour lines rather than up and down hills to minimize the amount of erosion that will occur after tillage.

Logically, the water's edge is a place with greater risk of erosion. Farmers leave or install riparian buffers of grasses or shrubs between a field and a body of water to minimize erosion and trap any field runoff before it gets to the water.

So how does this apply to your gardens and yards? If the garden is large, consider a winter cover crop, just remember to mow over it to chop up the long pieces of grass before you try to rototill next spring. Use mulches around your plants. Winter is a good time to think about garden and yard planning for next year. Plan your beds so that you are not rototilling up hills. Look for ways to minimize soil disturbance near areas that are steep or appear to have been eroded in the past. Steep sections near your driveway, for example, are a good possible location for shrubs. Your local garden center can recommend plants that have strong root systems that will hold soil. And always make sure you are aware of applicable laws and good practice recommendations before you do any landscaping on waterfront property.

If you have ever tried to buy topsoil you know how expensive it can be. Good planning in regard to erosion and soil management can be much cheaper and give you a better result.

For more information feel free to call me at the UNH Cooperative Extension office in North Haverhill (603-787-6944).

Look for next week's column "Food Plots - Part II" by County Forester David Falkenham.