As morning frosts creep into our daily routine, most vegetable and flower gardens are also tucked away for the season. While it may seem that garden chores are finished for 2009, there are several ways in which to prepare for the future growing season during our remaining window of pleasant fall weather.

**Garden Sanitation**
Any diseased plants should be completely removed from the garden. If diseased plant parts are left in the garden over winter, they will likely increase the pathogen’s ability to infect next year’s crop. So play it safe and remove affected plants. While it may be tempting to throw these plants into the backyard compost pile, be aware that most home composting systems don’t reach internal temperatures high enough to kill all plant pathogens.

Healthy plants whose foliage has died due to frosts and cooler temperatures can easily be added to the compost pile. Remember that many native plants, such as coneflowers, Black Eyed Susans, asters, and coreopsis, have nutrient-rich seed heads that are important food sources for birds during the fall. Many people choose to leave these plants in the garden until the seed heads have been eaten, removing them only after the birds have exhausted this food source.

**Mulching**
Perennials, shrubs, and trees can all benefit from mulch applications, and there are many options of mulching materials to use. Compost, pine bark, pine straw, aged hardwood mulch, and shredded leaves are all good choices for organic mulch materials. These materials will break down and will add organic matter to the soil as they decompose, so they will periodically need to be reapplied in order to retain a 3 to 4-inch mulch layer. Be aware that on windy sites, shredded leaves will often need to be covered with another organic mulch material so as to keep them from blowing away. Also be sure if using hardwood mulch to make sure that it is aged, as freshly shredded hardwood mulch (and sawdust) can interfere with the available nitrogen your plant needs to stay healthy.

Inorganic mulch materials include stone pebbles, lava rocks, and landscape fabrics. Some types of stone can leach nutrients into your soil that may alter the soil pH, which could negatively affect acid-loving plants like azaleas. Many sources recommend these inorganic mulches as a 12-inch border around home foundations to discourage insect pests like spiders, millipedes, and ants from entering the home. Organic mulches around the foundation of a home can increase the moisture levels in surrounding areas, which naturally attracts insects.

**Soil Testing**
One of the easiest ways to assess future garden sites is to conduct a soil test. North Carolina residents are eligible for a FREE soil testing service provided by the NC Department of Agriculture & Consumer Services (NCDA & CS). Soil test kits, complete with detailed directions of how to perform the test, can be picked up from the Watauga Extension Service any day of the week. Sample your vegetable garden soil, your blueberry patch, and any other areas...
that may not be growing plants properly. The NCDA & CS will process your soil test results and will provide nutrient recommendations based on your identified areas. Fall is a great time of year to sample your soil, and you’ll receive your results in time to apply any lime or gypsum that may be needed before winter weather heads our way.

Establishing New Beds
One of the easiest ways to establish a new garden bed is the “Lasagna” approach, also called sheet composting. The great benefit to lasagna gardening is that you don’t have to mechanically turn existing soil, which is particularly useful in our often-rocky soils. This method involves alternating layers of carbon-rich and nitrogen-rich materials that will decompose into rich soil.

Most people start out making individual planting beds using the lasagna method. After selecting a sunny (minimum of 6 hours full sun), relatively flat space for your garden bed, scalp the existing grass or vegetation so that it is as low as possible. You can also loosen the soil with a turning fork if you’re so inclined. This is particularly useful in very heavy clay soils.

The first layer to establish is the newspaper or cardboard layer. If using newspaper, you’ll need at least 6 layers of paper to inhibit the growth of existing vegetation, and be sure to use only the black and white printed sections. Some people prefer cardboard, as it is often available in larger sections and thus, can be quicker to place. Cardboard can often deter vegetation growth better than thinner newspaper layers. Wet the newspaper/cardboard so that it will stay in place as you apply new layers of materials.

The next layer should be a nitrogen-rich material. Potential materials include: compost, grass clippings, composted manures, coffee grounds, vegetable scraps, and cottonseed meal or bloodmeal. After applying about a 1-inch layer of nitrogen material, you then want to apply a 1-inch carbon layer. Carbon-rich materials include pine or wheat straw, sawdust, fallen leaves, and peat moss. Continue alternating carbon and nitrogen layers until the bed is about 24 inches tall, making sure to finish with a carbon-rich material on top to avoid odors or nuisance pests like flies. A 24-inch pile will eventually decompose to be about 6-8 inches in height. Your layers do not have to be exactly 1-inch layers, but the idea is to keep a proper nitrogen to carbon ratio, as this enables bacteria to break down the layers into rich soil full of microbial activity. The trick to lasagna gardening is to build your beds in the fall, as most beds will need about 6 months to fully age and decompose. When next spring rolls around, simply plant directly into the crumbly soil and enjoy the ease of this lasagna gardening method.

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