

## HORTICULTURE NEWSLETTER

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## IMPROVE YOUR SOIL WITH ORGANIC MATTER

The end of the gardening season brings with it a chance to do something that will quite possibly benefit next year's garden more than anything else. Adding organic matter to garden soil now will prepare your garden for a prosperous growing season in 2012.

Adding organic matter is perhaps the best way to improve all kinds of soil. It is best to add organic matter at least every few years or as needed if recommended by a soil test. Organic matter benefits the soil in many ways including: loosening tight clay soils, increasing water holding capacity of sandy soils, making soils easier to till, and even providing nutrients for plants.

Fall is traditionally the preferred time to improve garden soils with organic matter since this allows time for the materials to break down before spring. Spring addition of organic matter may be possible, but often the rains make it difficult to find time to thoroughly work the soil without creating large clods. Additionally, garden tilling and incorporation of organic materials in the fall allows the freezing and thawing of winter to break down any clods that might form.

Working garden soil in the fall is also beneficial because it destroys any insect pests that may be using the garden to overwinter. Working what is left of old plant debris under will also eliminate any diseases that might overwinter in the garden.

There are many organic materials at your disposal in the fall to use in the soil improvement process. Leaves, old hay, grass clipping, compost, and manure are all readily available in the fall and make great soil amendments. Note that with manure it is especially recommended that fall be the time of incorporation to allow time for proper decomposition before crop planting and harvest the following year.

A good general rule to follow is to incorporate about 2 inches of one of these materials into the surface of the soil and till it in. Be careful not to overtill the soil in this process. Once a garden has been tilled, the particles should be the size of grape nuts or larger. If the soil is tilled until it is fine dust, the soil structure has actually been destroyed and more damage than good has been done. In general it is best to limit tilling in your soils as much as possible for many reasons that I'll have to cover in another article, but if there is a preferred time to till it would be in the fall while adding organic matter.

## Soil Testing

If your garden soil needs improvement, the fall also makes a great time to test garden or lawn soil for pH, nutrient and organic matter levels. Soil testing should be done before adding any materials to the soil so that the amendments recommended by the soil test can all be incorporated at the same time.

Your local Kansas State Research and Extension office will gladly assist you in preparing and sending a soil sample to the soil testing lab. Once results are received a recommendation specific to your soil will be given based on the results of the test.