

Use Organic Matter to Improve Home Site's Soils

The golden rule of gardening says, "If you treat your soil well, it will treat your plants well". Healthy, fertile soil is a mixture of water, air, minerals, and organic matter. In soil, organic matter consists of plant and animal material that is in the process of decomposing. When it has fully decomposed it is called humus. This humus is important for soil structure because it holds individual mineral particles together in clusters. Ideal soil has a granular, crumbly structure that allows water to drain through it, and allows oxygen and carbon dioxide to move freely between spaces within the soil and the air above. Successful gardening depends on good soil. One of the best ways to improve soil fertility is to add organic matter. It helps soil hold important plant nutrients. By adding organic matter to sandy soil, you improve the ability of the soil to retain water. In a clay soil, humus will loosen the soil to make it more crumbly. You can increase the organic matter in your landscape and garden areas by adding compost or applying mulch.

Now that winter is approaching, it is a good time to apply organic matter to your home site soils to add carbon, which promotes the growth of beneficial bacteria, which increases the likelihood of hearty plants. Another benefit is when plants grow and demand more nutrients; added organic matter can be used as plant food. Remember that every time you disturb soil by turning or tilling, oxygen also is added to the soil. This increases microbial activity, which feeds on organic matter. Scientists have been researching the benefits of organic material for decades. They have found that plant deficiency diseases usually are less severe in soils that are well supplied with organic matter. This not only increases the vigor of the plants, but various soil microorganisms become more active in the presence of an abundance of organic matter. For example, certain kinds of fungi that live in decaying organic matter have been found to kill harmful nematodes. Healthy, productive soil has a good proportion of organic matter in it. You can successfully increase the quality of your soil by regularly adding organic matter. Caring for the soil is an ongoing process and is essential for successful backyard conservation.

All organic matter eventually decomposes. Decomposing organisms need four key elements to thrive: nitrogen, carbon, moisture, oxygen. For best results, mix materials high in nitrogen (such as clover, fresh grass clippings, and livestock manure) and those high in carbon (such as dried leaves and smaller twigs). If there is not a good supply of nitrogen-rich material, a handful of general lawn fertilizer will help the nitrogen-carbon ratio. Moisture can be provided by rain. Turning or mixing your garden area soils provides oxygen. Frequent turning yields faster decomposition. You may even want to consider establishing a composting area, in an appropriated place in your yard, to increase your ready supply of organic material for your landscaping and gardening area needs.