

Organic Tips for a Healthy Spring Garden

As the home garden springs back to life in May, growers may want to try some organic techniques this year to fertilize soil and control weeds and pests, rather than use synthetic materials. Compost is a simple but powerful organic tool to inject new life into tired soil. Aerobic composting converts organic wastes like leaves, shredded branches, grass clippings and vegetable scraps into rich humus. Compost improves aeration of tight clay soils, while building the water- and nutrient-holding capacity of sandy soils. Compost is also an organic source of nutrients needed for plant growth. Being organic, the nutrients are slowly released in the soil for plant uptake.



Legume crops like green beans and peas also add organic nitrogen to soil. Nodules on the roots contain Rhizobium bacteria, which convert elemental nitrogen from the air into a form the plant can use. The nitrogen remains in soil for future crop use. Other sources of natural nutrients include cottonseed meal, fishmeal, fish emulsions and livestock manures. However, livestock manures are best incorporated into new compost piles to kill weed seed and E. coli bacteria in the manures when the piles heat up.

Compost made from shredded, woody branches provides a natural fungicide to control seedling diseases like damping off in the spring. Good sanitation in the garden also helps control diseases. Clean up old leaves and garden wastes that may harbor powdery mildew. Like manures, recycling these wastes in an aerobically active compost pile will kill most plant pathogens. When pruning trees and shrubs, lookout for praying mantis egg cases. Shaped like a small loaf of bread, the inch-long, half-inch high, tan egg cases should be left undisturbed. When they emerge in warm weather, hungry praying mantises will devour many insect pests in the garden. Weeds are best controlled with mulches, which shade the ground and prevent many annual weeds from emerging. Control stubborn weeds with a hoe. Mulches also conserve water by reducing soil evaporation. Organic mulches like grass clippings will return nutrients to the soil.

Traditional plant breeding can help reduce disease problems in soil. Tomato varieties with resistance or tolerance to diseases like Verticillium and Fusarium wilts and even nematodes will help increase yields. New varieties of cantaloupes and pumpkins may also be tolerant to powdery mildew.

Finally, drip irrigation keeps foliage dry and reduces powdery mildew. When harvesting crops, allow foliage to dry before entering the garden because moisture collected on clothes can spread disease from one plant to another.

This article adapted from Cooperative State Research, Education and Extension Service, USDA. Please contact Ken Churches at cdcalaveras@ucdavis.edu or (209) 754-6475 with your agricultural questions. To speak with a Certified Master Gardener: Calaveras (209) 754-2880, Tuolumne (209) 533-5696, Amador (209) 223-6837, El Dorado (530) 621-5543.