

Cover Crops for Local Gardeners

By Horticulturist Sam Maupin

Cover crops are fast-growing plants that gardeners use to protect and build healthy soil, beautify bare patches in the landscape, and feed livestock or wildlife. The various benefits that cover crops bring, and the relative ease of broadcasting their seed, make them a valuable tool for landscape managers. Selecting the appropriate cover crop for a given site is important for maximizing the benefits that planting yields. There are many different management strategies for cover crops. As long as you are keeping the landscape green with growing plants, the health of the soil will improve over time and gardening will become easier.

Cover crops are nature's tool for protecting valuable soil resources. When soil becomes damaged or exposed, annuals spread rapidly by seed, protecting and rebuilding the soil. By supporting nature's effort to keep the ground covered, people can positively influence the health of the soil. When plants are growing, they produce sugars that the roots share with soil microbes. Cover crops growing during the winter provide an energy source for the soil life that will bring organic nutrients to spring and summer crops. All landscape managers should be aware of the benefits of supporting soil health. By feeding the soil, cover crops help generate soil carbon, or organic matter. That is one of the best indicators of soil health. If landscape managers globally increased soil carbon by two to three percent, by growing plants, carbon dioxide levels in the atmosphere would return to historically safe levels. When used well, cover crops have at least three functions ranging from personal, to local, to global.

To get the most value from a cover crop planting, it is important to choose appropriate varieties for the time and place. Cover crop mixes are intended to simulate nature's tendency to grow plants in diverse communities and improve the odds that something will grow well. Most cover crop mixes include some type of nitrogen-fixing legume that can synthesize and share nitrogen fertilizer with the soil. Annual grasses are added because their fibrous root systems protect the soil. By growing in winter on depleted soils, they feed soil when nothing else can. Sometimes cover crops are grown to deter pests and overcome weed issues. Mustard is grown because it is antagonistic to fungi and nematodes, and biologically resets the soil for cash crops. Cover crops are also used to prevent perennial weeds from establishing, however, if cover crops are not tilled in, harvested, or foraged before they mature, they tend to work their way around as weeds. Challenges with growing cover crops can be overcome with planning and practice.

Cover crops are common in agriculture, but are still under-utilized by gardeners and landscapers. Some vegetable gardeners use winter crops to protect the soil, but there are opportunities to incorporate cover crops into the landscape in other ways. Cover crops are an excellent alternative to turf, and even mixing a variety like white clover with grass can make management of the turf easier by bringing nitrogen to the soil. When left to flower, cover crops like buckwheat or crimson clover make stunning displays that can be used in rotation with flowering bulbs. Cover crops produce edible seeds that are great for backyard chickens, or can be hand-harvested for edible seed, making the landscape economically productive. No matter whether you grow cover crops for beauty or necessity, you are participating in nature in a very functional way.