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Fall-37

Home gardeners can get the same benefit from the practice of cover cropping that farmers do. It reduces erosion and enriches the soil.

Cover crops are often called "green manure" crops, because they add organic matter to the soil in the same way manure does, says Maggie Wolf, Utah State University Extension horticulturist. When grown during the winter, cover crops help condition the garden soil so next year's garden harvest will be even more bountiful. Knowing what, when and how to plant cover crops each year will help you become a more successful gardener.

Cover crops may be grown at any time of the year, with warm-season crops such as sorghum, sudangrass and millet being planted in the spring, and cool season crops such as oats, barley, clover and vetch being planted in late summer or early fall, Wolf explains. Farmers usually plant cover crops in fields that are not in production. This rotation of taking certain areas out of production not only helps control pests but reduces erosion as well. By plowing the cover crop back into the soil at the end of the season, the soil is further enriched.

Home gardeners can and should practice cover cropping in their gardens, but many gardeners don't want to sacrifice any of their garden space to grow what they may view as a worthless crop, she says. However, growing a cool season cover crop through winter makes cover cropping in the garden a more attractive idea since it won't rob space from your summer garden.

These winter cover crops must be started toward the end of summer to allow the seed to germinate and the root system to become established before the plant tops are frozen, Wolf says. Many hardy species can be planted in late August and the first two weeks of September, get established, and survive throughout winter. Although the plants may not grow much through the winter, their presence on the soil surface makes a big difference to the health of the soil, preventing water and wind from carrying off soil particles if the soil surface were left bare. Heavy rains or foot traffic also compact bare soil more easily.

Roots that penetrate the soil serve two main functions: they provide pathways for soil aeration and water movement, and they provide carbohydrates for soil microorganisms, she says. The result is a looser, more "crumbly" soil with improved drainage and water-holding capacity. Also, a balance of good and bad soil organisms can help reduce pest problems during the

growing season.

There's an extra benefit to using legumes as the cover crop, Wolf says. Legumes such as vetches, clovers and peas make excellent cool-season cover crops and are able to "fix" nitrogen in the soil. In other words, these plants package nitrogen into a plant-available form within their root zone area. Studies have shown that use of legumes as cover crops can reduce or eliminate the need for additional nitrogen fertilizer for the primary garden crop.

For more information, contact your local USU County Extension office.

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