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Dennis Hinkamp
Utah State University

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GARDEN NOTES

KEEPING YOUR SOIL HEALTHY

By Dennis Hinkamp

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Good, healthy soil is the key to strong, hardy, beautiful plants in lawns, gardens, flower beds and around shrubs and trees. Keeping that soil in shape and healthy requires commitment, time and some effort.

"I once talked to some people who were having some plant problems," says Jerry Goodspeed, Utah State University Extension horticulturist. I suggested improving the condition of their soil, and their response was they had already done that . . . about ten years ago. I wanted to say, 'Yeah, like once every 10 years keeps anything in shape.' But, instead, I politely mentioned that once every 10 years is not quite often enough."

Keeping soil in shape requires a little extra effort every spring and fall, he says. The most important activity is to add as much organic matter as possible. Organic matter is like health food for soil. It doesn't smell or look appetizing, but your body appreciates the effort and is healthier once its inside.

Organic matter is usually deficient in our soil, he adds. This includes such things as compost, manure, stable bedding materials, sawdust, leaves, shredded paper and other natural materials. A minimum of two to four inches should be added to the garden each year.

Work all of these into the soil right now, then add some extra nitrogen to help them decompose, Goodspeed says. As high carbon materials such as wood products are placed in the soil, the microbes that break them down go to work. These hungry microbes require a large quantity of nitrogen to do their job.

With this in mind, the normal recommendation is to apply one quart of a nitrogen fertilizer (such as 21-0-0), for every 100 square feet of soil covered with one inch of organic matter, he says. This sounds like a lot of nitrogen because it is. However, if the microbes do not get enough free nitrogen to help them, they will take it from the plants. This causes nitrogen deficiencies in the plants, stunting their growth and turning them yellow.

Till organic matter and nitrogen into the soil together, he says. Working organic matter in improves the tilth of the soil; but, too much tilling can be detrimental to the soil. Only till it enough to make it easy to work and plant, because too much tilling destroys the structure of the soil.

Another key to soil health is rotating the placement of plants throughout the garden and flower beds, Goodspeed explains. Grow each vegetable in a different area each year. Plant different annuals every two or three years. Growing the same kind of plant in the same spot for several years in a row increases the likelihood of problems with diseases and even some insects. Rotating plants makes it harder for these pests to get established and become a nuisance.

Another suggestion for keeping soil in good condition is to create walking paths, and stay off the majority of the soil as much as possible, he says. Walking or tromping on soil causes compaction and decreases the ability of the soil to provide the necessary oxygen to the plants root system. It is especially important to stay off soil when it is wet.

Soil also does not like to be constantly wet and waterlogged, Goodspeed says. Water deeply and infrequently, and allow it to dry between watering. Waterlogged soil starts to undergo anaerobic respiration, which is both smelly and a perfect breeding ground for diseases.

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