

Garden Update

Week of September 27, 2021

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Readying the Garden Soil for Winter

As harvest from the vegetable garden draws to a close, it is time to plan and take steps to protect the soil for the winter months ahead. This ensures the soil is in good shape and ready for next year's garden. After all, soil isn't just dirt, but a rich and varied composition of minerals and plant nutrients, organic matter, beneficial microorganisms, and humic acid. It is not only foundational, with spaces for roots to grow and anchor plants, but also serving up a nourishing "stew" for seed germination, plant growth and vegetable production.

You can start by removing spent vegetable plants, weeds, and mushy produce from the garden. Diseased plant material and weeds with seeds should not be composted but buried elsewhere as most home compost piles do not get hot enough to kill pathogens and seeds. Things that are disease and insect free can be added to the compost pile.

Consider planting a cover crop, sometimes known as green manure, such as annual rye, hairy vetch, peas, radishes, or barley. Seeds planted now will germinate yet this fall, providing winter-long protection of the soil from wind erosion. Cover crops also protect the soil from rain droplet splash, which destroys soil structure. Come spring, the cover crop is mowed, and the material worked into the soil, boosting soil tilth. More information about cover crops is found at this USDA site: <https://go.unl.edu/kjn3> .

Piles of raked tree leaves should not be burned. Instead, run a mulching mower over the leaves to chop them up, then add them to the garden. Roughly spade in the chopped leaves to keep them from blowing away. The presence of leaves in the soil will allow for better infiltration of water, which in turn provides a jump start to leaf decomposition, ultimately enriching the soil and providing pore spaces for plant roots to grow.

Fall is a great time to add soil amendments. A soil amendment loosens clay soils and increases water holding capacity in sandy soils. Realize that plant roots don't grow in the soil, they grow in the spaces in the soil, so adding amendments like compost, well-aged manure, leaf mold, or decomposed wood chips increases soil spaces and root growing capacity.

Vary the tools and methods for cultivating the soil. Using a mechanized tiller, year after year, can create an undesirable hardpan layer beneath the cultivated soil. Hardpan allows little water percolation, creating a waterlogged soil above it, and an impenetrable layer for roots to grow through it. Opt instead, to forego using any cultivation at all or hand dig with a spade in alternate years, breaking through the tine depth of the rototiller's reach and punching holes into the hardpan below.

If the soil is powdery dry, drag out the hoses and do a final watering of the garden. Soil water helps with the freeze-thaw cycle, fracturing soil into beneficial soil aggregates and boosting soil structure.

Caring for the soil has a huge payoff, with healthy plants and better production. Gardeners can take the time to provide winter protection for their soil, ensuring it remains the resource that it is.