

Prepping soil for winter

Question: The soil in my garden beds appears old and tired – it’s hard to dig in and the plants didn’t grow very well this past summer. What can I do to improve the soil for the next growing season?



Carol Dalu
Ask a Master Gardener

Answer: In order to thrive, plants need growing conditions that meet their needs – rich, fertile, aerated soil containing a variety of nutrients and minerals, and the ability to hold water.

Over time, soil can become depleted, but the good news is there are a variety of ways to improve the condition of the soil in your beds, and fall/winter is a great time to begin the process. Very likely your vegetable beds are now empty, the annuals have been removed from the flower beds and the perennials and shrubs have been cut back, so accessing and working the soil can be easier this time of year.

To improve the condition of the soil you will need to add material. One of the best and easiest ways is to add organic matter. Not only will it improve the soil’s ability to hold water, it encourages earthworms, insects and microorganisms to act as aerators, improving the supply of oxygen, nutrients and humus.

Organic matter is comprised of decomposed or partially decomposed organic material, such as yard wastes, kitchen scraps, sawdust, bark

mulch, peat moss (ideal for raised beds or small gardens as it is nearly weed-free), grass clippings or leaf mold (made of the slow decomposition of deciduous shrub and tree leaves; not high in nutrients, but helps retain moisture).

Another easy option is to add organic fertilizer, which is comprised of barnyard manure (cows, pigs, rabbits, bats, chickens and horses). Manure should be aged before it is used. This can be done by allowing it to dry or by composting it with organic matter.

If using either organic matter or fertilizer, apply by spreading 2-3 inches through the garden beds and then dig into the top 6-7 inches. Adding organic amendments in the fall gives the microorganisms an early start on converting the matter to humus.

If nutrients such as calcium and magnesium are needed, lime is a useful additive. It is also helpful for neutralizing soil acidity. Lime promotes root growth and helps to create a healthy environment for soil organisms, which breaks down organic matter and improves soil structure. Lime is recommended for gardens in western Oregon because many



PIXABAY.COM

Leaf mold, a type of organic matter great for improving the condition of soil, is made of the slow decomposition of deciduous shrub and tree leaves. It is not high in nutrients, but helps retain moisture.

soils west of the Cascades have high acidity ratings.

If you have a fireplace or wood stove, wood ash is a convenient additive. Because it’s from plant material, it is a good source of essential nutrients. An important note: wood ash is alkaline, which means it has a high pH level, so use caution when handling, same as you would household bleach. Adding ashes will raise the soil pH, which can be helpful, however too much can interfere with plant growth.

You do not want to apply wood ash to acid-loving plants such as blueberries, rhododendrons and azaleas. This is one amendment you would not want to add during winter, as the highly soluble nutrients will be washed away. Instead, apply ash two weeks prior to planting. Ash may also be applied to lawns as you would lime

to maintain adequate pH.

If you have a large garden area, consider using green manure, also called cover crops. They are super helpful as they add organic matter, aerate the soil, protect soil from compaction caused by rain, suppress weeds, reduce erosion and some even add nitrogen. Cover crops can be a fairly low maintenance process – start by seeding in the fall (late August to early October), water a couple times until the rain begins, leave it through the winter, then till it in the spring.

Examples of green manure include winter oats and cereal rye, common vetch, and legumes such as crimson clover. Cover crops are then tilled into the soil and left to decompose for about four weeks before planting.

Fertile soil with good tilth doesn’t happen with just one application of organic material, but from a



PHOTO BY UNIV. OF NEW HAMPSHIRE

In order to thrive, plants need growing conditions that meet their needs — rich, fertile, aerated soil containing a variety of nutrients and minerals, and the ability to hold water.

consistent process of soil building. With repeat additions, you can improve the properties of the soil and maintain it for future growing seasons.

For more detailed information on improving garden soils with organic matter, visit the following link to download a publication from Oregon State University

Extension catalog.
extension.oregonstate.edu/ec1561

Do you have a gardening question? Contact the Douglas County Master Gardeners via email at douglasmg@oregonstate.edu, by phone at 541-672-4461 or visit 1134 SE Douglas Ave., Roseburg.