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COMPOST TO IMPROVE THE GARDEN

Composting allows home gardeners to recycle organic material into a useful gardening product.

“Leaves, plants killed by frost, vegetable scraps and grass clippings – all these materials can be composted”, says Robert Nuss, professor of ornamental horticulture in Penn State’s College of Agricultural Sciences. “You can operate a compost pile year-round. The composting process will continue through the coldest days of winter.”

Nearly 30% of the material homeowners throw away can be composted. This keeps these wastes out of landfills and creates a product that adds valuable organic matter to the lawn and garden. “Many landfills no longer accept leaves or garden wastes”, says Nuss. “Composting may be the easiest way for homeowners to dispose of them”.

Composting decomposes organic matter into a dark, crumbly material similar to humus. Along with providing nutrients, finished compost helps soil retain water by increasing its organic content. “Compost is a valuable soil conditioner that can be used in gardens, around trees and on lawns,” says Nuss. “You don’t need a special compost bin but unconfined heaps can be visually offensive to neighbors,” Nuss adds. “If you have neighbors living close by, you may want to consider using a compost bin. Other than that, you need few tools except for a manure or garden spading fork for turning the material, and a soil thermometer.

Composting tools and bins are available at hardware stores and garden centers or you can order them from gardening catalogs. An inexpensive bin can be made from masonry blocks, boards, wire or snow fencing. “Make sure your bin is at least three feet and three feet wide so that it can hold enough material to function properly:”, says Nuss.

Once you have your bin situated on level ground, you can fill it with plant and vegetable scraps, egg shells, coffee grounds, sawdust – even small bits of paper.

The pile should contain a mix of carbon and nitrogen rich materials because both are essential for the microorganisms that do the decomposing. “Green leafy wastes usually are high in nitrogen, while woody materials tend to be high in carbon” Nuss says, “Fertilizer and manure also are good nitrogen sources”.

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The microorganisms that aid in leaves composting need some moisture so you may need to water the pile from time to time. One way to gauge moisture is the squeeze test. “Tightly squeeze a handful of the material,” Nuss says, “If a few droplets of water come out, it’s just about right. If it looks and feels dry as a bone, hose down the compost pile.”

Decomposition without oxygen can cause bad odors, so tumble the pile every few weeks with a gardening fork to aerate it. Using a fair amount of coarse material – dry leaves or bulky plants, for instance, also helps ensure that the pile gets proper aeration. If you detect any odor, turn the pile.

With proper aeration and ample amounts of carbon, nitrogen and moisture, the pile should reach at least 90F in the middle, which indicates that the process is working. Temperatures up to 140F will kill weed seeds, but higher temperatures can kill the composting microbes. Check the temperature once a week with a soil thermometer and if it gets too high, turn the compost pile.

“As long as the pile is large enough to insulate itself, it will continue to decompose without being turned although at a slower rate throughout the winter”, Nuss says. “When warm weather returns in the spring, begin turning it again. The compost is ready to use when the pile cools and the material is dark, crumbly and sweet smelling, like soil.”