

20 October 5 Backyard Composting
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For Release: Week of October 5, 2020

Starting a compost pile is a great way to recycle yard waste and the end result is one of the best soil amendments that can be used for improving soil.

Healthy soils have good structure. These are well drained yet hold water and nutrients and have adequate pore space for root growth and oxygen. Good structure comes from soil aggregation.

Aggregates are groups of mineral particles (sand, silt and clay) bound together by beneficial fungal hyphae, earthworm secretions, glues created by fungi and bacteria and more. Aggregation is highly dependent on soil organic matter and reduced tillage.

When people are new to composting, they often ask what materials can be composted and what should not be added to a compost pile.

Almost any plant waste can be composted including plant based kitchen scraps, coffee grounds, and egg shells. Wood chips, sawdust, shredded paper and shredded newspaper can be composted.

Items that should not be added to a compost pile include any kind of meat, bones, eggs, dairy products, grease or oil. Do not add cat or dog feces to compost piles and do not add wood ash as these raise pH which can negatively affect decomposition and soil.

It is best not to add diseased plants or weed seeds. Compost piles need to reach a temperature of 150 to 160 degrees Fahrenheit to kill such organisms. Most piles are not managed to reach this temperature.

A few other tips for effective composting is pile size, the correct mix of carbon and nitrogen material, and the right levels of moisture and oxygen.

Compost piles can be free standing or placed in a structure such wooden pallets put together as a bin. There are plans available on-line for making compost bins. Size is key. The pile should be no smaller than 3 x 3 x 3 and no larger than 5 x 5 x 5.

Small compost piles will not retain enough heat for decomposition of organic material. Too large of compost piles do not allow enough oxygen into the pile leading to slow decomposition and odors.

The correct mix of carbon and nitrogen material basically means having both dry or brown material like dead tree leaves or shredded paper and fresh or green material like grass clippings or kitchen plant waste.

All plant material has a carbon to nitrogen ratio with some having higher carbon than nitrogen and vice versa. A 30 to 1 carbon to nitrogen ratio is ideal for compost piles. This can be difficult to achieve so it is recommended to add about twice as much high carbon material as high nitrogen material when building a compost pile.

The microorganisms, mainly aerobic bacteria, and macro-organisms like earthworms that do the work of decomposition need both carbon and nitrogen in their diet for efficient composting.

They also require moisture and oxygen. A compost pile should be about as moist as a squeezed out sponge. Slightly moisten organic material before it is added to the compost pile or lightly sprinkle the pile, if needed, whenever turning it.

Turning is needed to introduce oxygen into the pile and to move less decomposed material from the outside of the pile to the center. Ideally, turn compost piles as least once a week.