

## **Making and Using Compost**

Compost is a great way to recycle kitchen and garden scraps. It takes organic waste and turns it into nutrient-rich humus that can be used by plants. Composting is a way of returning to the soil what we deplete with traditional gardening practices.

The most significant benefit of adding organic material (compost) to your soil is that it improves the soil itself. Organic material improves the looseness and workability of soil. If your soil is composed of a heavy clay, compost can improve the structure, although it cannot change the composition. Improved structure makes it easier for plant roots to penetrate soil and grow. If the soils in your garden are sandy, compost will improve the ability of these soils to hold water as well as giving a boost to fertility in all soil types.

In our flower beds and vegetable gardens we are constantly planting, harvesting and removing plant materials. All these actions remove nutrients stored in the soil. In nature these nutrients would be returned to the soil with the natural decomposition of plant material. Composting takes that organic material and in a confined space (composting bin) re-creates these processes under optimal conditions. Compost added during tilling or planting, in the spring or fall, will add nutrients that plants can use year-round.

If you're adding compost at the time of planting the best method is to add compost to the bottom of the trench or hole. For annual or perennial flowers, tomatoes and shrubs this allows nutrients to be released in the area that roots are developing. For seed planting, compost may be added by "top dressing" or sprinkling the compost over the top of the soil after you plant the seeds. This will prevent soil crusting which can make it challenging for new seedlings to break through the soil surface.

A compost tea can be made by mixing equal parts compost and water and pouring this liquid over new plants or newly seeded plants. This tea serves as a substitute for soluble fertilizers and the remaining compost can be added to the garden after using the tea.

A lesser known use for compost is as a mulch. Mulch reduces weeds and soil crusting, holds in soil moisture and regulates soil temperatures. Compost can provide all these benefits just by applying 2-3 inches around vegetables, flowers, trees or shrubs. Compost may not provide the same weed suppression as other mulches so feel free to layer it beneath a wood mulch for an additional barrier. In this case, only add 1 inch of compost and 1-2 inches of wood mulch. Make sure not to pile compost or mulch too heavily near plant crowns or too thick around the base of trees.

Although leaving grass clippings on your lawn helps reduce the amount of fertilizer it needs, in the same way composting does, many homeowners don't like the look of a newly mowed lawn with clumps of cut grass on top. Adding a fine layer of compost (top-dressing) each year before planting, or reseeding your lawn, returns some of the nutrients taken away during mowing. You may also choose to rake the grass clippings evenly across the lawn and in the fall, mow leaves into your lawn. With any of those methods you are adding organic matter back into your lawn. Make sure there are no clumps of compost, grass clippings or leaves that could potentially block light from getting to the grass itself, especially when reseeding.

As with all good things, there can be situations where compost isn't appropriate. An abundance of nutrients, which some compost provides, can cause rapid plant growth with limited fruit production in

our edible gardens. If you add compost that is not completely decomposed it may continue to break down in your soil and tie up soil nutrients in the process. This is especially true with spring applications of compost. Some insects prefer the dark, moist compost and may enjoy a top dressing of compost. While some of these insects may be beneficial, sowbugs and squash bugs are pests that enjoy a layer of organic matter. Consider proactive control methods if you've had issues with either pest. It is vital when using compost to make sure water can penetrate top dressed compost. After you water, move the compost aside and make sure the soil below is wet. If you're seeing a dense, impenetrable layer of compost on top of your soil, add more soil to the compost during the creation process.

Compost should not be used as the media for your potted plants. Use traditional potting soil as it has better drainage. You can top dress your containers for nutritional purposes but most potting soils have fertilizer pre-mixed into the media and in those instances your compost would be better used in garden beds.

For more information on composting, including our troubleshooting guide, visit our website:

<https://www.shawnee.k-state.edu/lawn-garden/compost.html>