

Garden Solutions: How to Get More From Your Compost – Make Tea!

Most gardeners are aware that amending soil with organic material greatly improves soil structure. How does organic matter accomplish this amazing feat? It improves the soil's ability to absorb and hold water, increases air volume, and adds organic "food" for soil microbes to digest. Healthy soil is full of microscopic life: a single gram of topsoil (about 1/4 tsp.) can contain as many as a billion microorganisms. Many of these microbes, such as *Mycorrhizae* fungi and *Rhizobia* bacteria, directly affect the ability of plant roots to take in nutrients from the soil. Because plants require these microbes to survive and thrive, one of our gardening goals should be to grow more microbes!

How can we grow soil microbes? Composting is clearly the best method. Properly composted organic material is full of millions of decay-loving microbes, whose main function is to break down the remains of plants and other organisms. This process releases energy, nutrients, and carbon dioxide - all necessary for plant growth.

Unfortunately, most gardeners quickly discover they cannot make compost fast enough to meet their gardening needs. Extra compost must be purchased - an additional expense, not to mention extra labor.

Making compost tea is another microbe-growing option to consider. Compost tea is exactly what it sounds like. Mix compost with water, let it brew until strong, then serve over your plants! A properly made batch of compost tea "grows" the number of microbes found in the original compost. Think of it as concentrated liquid compost. But remember, the quality of the finished tea is directly related to the quality of the compost. If the brewing compost contained harmful disease pathogens, you might inadvertently be growing those along with good microbes. (See The JG Press' article [Understanding Compost Tea](#).)

Another alleged benefit of compost tea has recently been the topic of much horticultural debate. Anecdotal evidence from tea-users suggests a reduced incidence of plant diseases on compost tea-sprayed plants. Many report that regular tea-spraying routines help control powdery mildew, fusarium, botrytis, late blight, phytophthora, and verticillium. Scientific research studies have verified some of these claims, but not all. (See Whatcom County Cooperative Extension's article [Brewing Up Solutions to Pest Problems](#).) Research is on-going, but for now the scientific jury is still out on most disease-fighting claims of compost tea.

Ready to brew up some compost tea and see if it benefits your garden? Typical compost teas are made by a fermentation process: mix 1 part high-quality compost (disease-free, fully decomposed) to 5 parts water (chlorine-free, allow tap water to stand 24 hours if chlorinated). Allow mixture to "brew" at temperatures between 59 and 68 degrees for 3 to 21 days. Stir gently several times a day to incorporate oxygen. Without adequate oxygen, the brew may become foul smelling, due to unfriendly bacteria. If it does, add more water and stir more frequently. The mixture should soon balance out (good bacteria vs. bad bacteria), and the smell disappear. To apply compost tea to your garden: strain the brew, dilute with water (about 1 part tea to 5 parts water), and spray or sprinkle directly on plants, or use as a soil drench in root zones. Start with weaker tea solutions to avoid "fertilizer burn", then gradually experiment with stronger solutions. Applications are most beneficial once the soil has warmed, during the active growing season.

If you want the benefits of compost tea without the hassle of making it yourself, you might consider purchasing a compost tea brewer. These devices mix it for you! They have the added benefit of brewing finished tea much quicker, and growing more microbes per gallon as well.

So next time you're enjoying a nice cup of tea – remember your plants – and brew some tea for them as well!

Resources

For information about compost teas:

[Brewing up Solutions to Pest Problems](#)

[Compost Utilization – Compost Tea](#)

[Compost Tea: A Renewed Ancient Idea](#)

For information about automated tea brewers:

[Soil Soup](#)

[Growing Solutions Incorporated](#)

For information about soils, microbes, and compost:

[Soil Management in Yards and Gardens](#)

[Backyard Composting](#). Stewardship Gardening, WSU Cooperative Extension.