

Making Compost Tea

Compost tea is a water-based liquid preparation. It is made by infusing aerated nutrient water with compost to extract and grow beneficial microbes. Compost tea can be applied as a plant or soil spray, or used as a soil drench. It is known to increase plant vitality and inoculates the soil with a diversity of beneficial organisms. Anti-fungal qualities have also been observed. There are many formulas for the making of compost tea. Several resources are listed below that provide specific recipes. The following is a general description of the tea-making process and kinds of ingredients used.

- 1. Use aerated, chlorine-free water.** Compost tea is prepared in batches. Small batches can easily be made in 5-gallon buckets. Whatever the container, it should be well-cleaned to remove contaminants. In small systems, aeration can be provided by aquarium air pumps and diffuser stones, which are available from pet supply shops. Aeration is important to ensure that the tea does not become anaerobic and grow pathogenic organisms. City or rural tap water is treated with chlorine, which kills microorganisms. Tap water should be aerated for at least two hours before adding the compost, to “gas off” the chlorine. The additional aeration time also allows the water to warm up a bit. It is desirable that the water approximate ambient air temperatures. Aeration must continue throughout the entire process until the compost tea is actually used.
- 2. Add starter nutrients – food for the microbes.** The microorganisms extracted from compost will need food to grow and increase their populations during tea-making. Common starter ingredients include black-strap molasses, plant extracts, soluble kelp, soluble fish, and humic acids. For example, a commercial product available from Peaceful Valley Farm Supply called “Compost Tea Starter” is made with kelp extract, micronized humates, and fish powder.
- 3. Add compost.** High quality compost is added in a screened reservoir, tea bag, or similar arrangement that allows water from the reservoir to mix with it, while confining large particulates. This allows the microbes from the compost to infuse the nutrient solution. In small 5-gallon bucket systems, we place cheese cloth over the top of the bucket and hold it in place with a large elastic band. We then place compost on the cheese cloth and carefully loosen the band while pressing the compost down into the water until it is fully immersed. About one quart (approximately one lb.) of compost is used per 5 gallons of solution. Place a lid loosely on top of the container to reduce outside contamination.
- 4. Brew for about 24 hours.** The compost may be gently stirred occasionally to increase the amount of compost nutrients and microbes extracted.
- 5. Use the compost tea immediately.** Beneficial aerobic organisms will start to die soon after aeration stops, and anaerobic pathogens can begin to grow. If the tea must be blended with additional water, be sure it is de-chlorinated and not too cold. If sprayed, be sure to strain the tea well to avoid clogging the sprayer.
- 6. Clean all brewing components with hot water before re-use.** This prevents contaminating later batches.

Resources:

Gershuny, Grace. 2004. Compost, Vermicompost and Compost Tea: Feeding the Soil on the Organic Farm. Northeast Organic Farming Association. 89 p.

Ingham, Elaine. 2002. The Compost Tea Brewing Manual. Soil Foodweb, Inc., Corvallis, OR. 79 p.

Lowenfels, Jeff, and Wayne Lewis. 2010. Teaming With Microbes: The Organic Gardener’s Guide to the Soil Food Web. Timber Press, Portland, OR. 220 p.