

Compost Tea

by Ursula Nanna, Bell County Master Gardener

Plants enjoy a cup of tea every now and then. Compost tea contains 16 beneficial nutrients that add a jolt to the soil and a punch to the plants. You'll see an increased root system, a more robust plant with a healthy leaf structure, and, if the plants are of the flowering variety, larger and more flowers.

If you already have a compost pile up and going; that is excellent. If not, start gathering leaves and grass clippings and some twigs and start your compost pile now. Come spring, you'll be ready to start compost tea with the rest of us. For information on how to make a compost pile read my October 2003 Tip of the Week article Bottoms Up.

Compost tea extends the benefits of composting by increasing the presence of Mycorrhizal fungi and beneficial bacteria and helps break down soil toxins. This special tea is made by brewing compost and adding nutrients to the brew mix and aerating this for 2 - 3 days with an aerator. The tea is then applied to the plants' leaves or to the soil. As concerned gardeners, we use the compost tea to cut down on or eliminate the use of inorganic fertilizers, pesticides, and fungicides and to increase the beneficial organisms in the soil like beneficial nematodes, fungi, and bacteria that feed the plants and condition the surrounding soil.

To make compost tea you'll need some mature compost, that is, a pile that has been turned and allowed to heat enough to kill weed seeds and pathogens. Vermiculture compost can also be used and offers many benefits in itself. Follow the same procedure for both. If your compost is made from more leaves than grass, you'll develop a good fungal tea used specifically on berries and trees. If your compost is made from more grass and green material like alfalfa, legumes, beans and peas, you'll develop a bacterial tea excellent for plants and vegetable gardens.

Mix a large compost pile at one time and pile it high so proper heating of 130° F to 160° F takes place. Moisten the pile to damp, not wet, and allow the pile to stand 3 - 4 days after heating begins. Measure the temperature with a long thermometer into the center of the pile. At 155° F, turn the pile every 4 days or so. The more the pile is turned, the more beneficial bacteria are fed. In about 6 - 8 weeks the compost pile will begin to cool down and the organic material will begin a humus-like stage, not soil yet but highly organic. The compost is now ready to brew.

Let's keep it simple so any of us can brew the tea, including the children. Besides the ready compost, you'll need the following: a 5 gallon pail; a small aquarium pump to aerate the brew; a gang valve with 3 - 5 valves to distribute the air; 3 - 5 bubblers; and some air tubing. These can usually be purchased wherever aquarium fish are sold. In addition to that list, you will also need an unpainted stick with which to stir the brew to mix in the 2 oz of unsulfured molasses and some used nylons or cheesecloth to filter the finished brew.

If you try to short cut and not bubble the mix, harmful anaerobic bacteria will dominate. You'll know that happened by the terrible sewer-like stench. This mix will be harmful to your plants. If using city water, bubble the city water overnight to air off the chlorine which would kill the beneficial organisms. Then add the compost.

Fill the 5 gallon bucket about 1/2 full with loose compost. Cut 3 - 5 equal lengths of tubing long enough to reach the bottom of the bucket and attach the bubblers to the hoses and the other end of the hoses to the aerator pump. Fill the bucket almost full of water and start the aerator pump. Once things are up and going, add 1 oz. of unsulfured molasses and mix with the stick. Rearrange the bubblers again. Stir several times more and rearrange the bubblers to the bottom of the pail.

In 3 days, turn off the aerator pump and remove the bubblers. Add another 1 oz of unsulfured molasses and let the brew rest about 20 minutes. Now filter the brew through the stockings or cheesecloth into a clean bucket. Use this tea as soon as possible, especially within a couple of hours- so all the beneficial organisms are fresh and well fed.

If you or your neighbors have been using pesticides, several applications of the tea are necessary at 10 day intervals. Once you use the compost tea as a regular garden staple, using the brew once in the spring and once in the fall is sufficient. Your tea can be sprayed on the leaves or added directly to the soil around the plants and the leftover strained brew material should be re-added to the compost pile. Soon you'll see healthier plants as they consume the mix of nutrients and beneficial micro-organisms warding off harmful fungi, bacteria, and insects. If you work during the week, begin the brew on Wednesday or Thursday so the tea is ready for use on the weekend. If you get the kids involved, you'll be surprised at all the compost tea they will willingly make and the amount of fun all will have. Happy Brewing!