

Brewing Worm Tea

Tap your compost pile to make a potion that both fertilizes and prevents disease

How to brew worm tea

1. Set up your Urban Worm Tea Brewer. Attach one end of a piece of tubing to the air pump, insert it through one of the two outer holes in the lid of the brewer. Connect the other end to the air stone.

3. Fill bucket 2/3 full of water. If you're on a well, you can use water straight from the spigot. But if you're using city water, run the bubblers in it for about 12 hours first, to blow off any chlorine. Otherwise, the chlorine will kill all those beneficial organisms you've gone to the trouble of raising.

4. Once you have safe water, fill the tea bag half full with worm castings. Don't pack it in; it will aerate better if it is loose. Thread the strings of the bag through the smaller holes in the center of the lid, and tie, so the teabag, with castings in it can hang down in the water.

Note: For adequate aeration, be sure the bubblers sit on the bottom of the bucket.

5. When it's going, add 1 oz. of unsulfured molasses (organic is best) to the bucket and then stir vigorously. The molasses feeds the bacteria and gets the beneficial species growing really well. Try to stir the tea a couple of times a day. A vigorous mixing with the stick shakes more organisms loose and into the tea. Every time you stir, be sure to reposition the bubbler.

You can start using your tea after two days.

Spray all over your plants, soak leaves, stems, & pour into the soil.

Note: If you leave the tea aerating longer than three days, you must add more molasses or the good organisms will start going to sleep because they don't have enough food to stay active.

You can put the castings from your tea bag into the soil. There are plenty of good bacterial and fungal foods left in them.

Using the tea

How often to spray your plants with tea depends on how healthy your garden is. In my garden, which has had no pesticide use since 1986, I spray my plants one time in spring, then let the beneficial insects spread the worm tea organisms around the plants in my garden, preventing any pest problems for the rest of the season.

Beneficial insect presence is a good indicator of your garden's health. If you don't have good levels of beneficial insects in your garden, then spray at least once a month, or as often as once every two weeks. Start when plants have developed their first set of true leaves.

To control damping-off, spray the soil with full-strength tea as soon as you plant. On trees and shrubs, spray two weeks before bud break, then every 10 to 14 days. You'll have to spray every 10 days if you have a neighbor who sprays pesticides, because pesticides kill the beneficial organisms as well as some of the pests.

A little science

It's not coffee—it's tea. Well-brewed worm tea is rich in microorganisms that are highly beneficial to your plants' growth and health.

The soil is full of microorganisms that aid plant growth and plant health—bacteria and fungi, which are decomposers, and protozoa and beneficial nematodes, which are predators. But there are bad guys too—disease-causing bacteria and fungi, protozoa, and root-feeding nematodes. Our goal as gardeners is to enhance the beneficial microorganisms in this soil foodweb, because they help our plants.

The bad bacterial decomposers and the plant-toxic products they make are enhanced by anaerobic, or reduced-oxygen, conditions. By making sure the tea and the compost itself are well oxygenated and highly aerobic, you eliminate 75 percent of the potential plant-disease-causing bacteria and plant-toxic products. To take care of the other 25 percent of potential diseases and pests, you want to get good guys into the soil and on at least 60 to 70 percent of your plants' leaves. Good bacteria work against the detrimental ones in four ways: They consume the bad guys, they may produce antibiotics that inhibit them, they compete for nutrients, and they compete for space.

Plants themselves don't use all of the energy they make through photosynthesis. For example, 60 percent of a vegetable plant's energy goes to its root system, and half of that energy is exuded into the soil. Of those exudates, 90 percent are sugars; the rest are carbohydrates and proteins. When you think about these ingredients as food, they're the makings for cake. This is high-energy stuff. Why is nearly one-third of a vegetable plant's output going into the soil as energy-rich food? To feed the good bacteria and fungi.

When we human beings kill off bacteria, fungi, protozoa, nematodes, and other organisms, whether by polluting the air or by spraying pesticides or even by using chemical fertilizers, we're reducing the population of critters that plants feed. That's why one of the simplest and best things you can do for your garden is to spray your plants with compost tea, to bring back organisms killed by chemicals.