

Handout #1 – CV Growers & Seed Savers Workshop on Compost Tea
Presented by Peggy Carswell, Fertile Ground
www.fertile-ground.org

Various Teas for Various Plant Types

If you know what type of plant you are growing, then will be easier to determine which ingredients to include in your compost tea recipe.

Type of Plant	Type of Tea
Most brassicas	Highly Bacterial
Vegetables, Grasses	Moderately Bacterial
Berries	Balanced Bacteria to Fungi
Deciduous Trees	Moderately Fungal
Coniferous Trees	Highly Fungal
Perennial flowers	Balanced Bacteria to Fungi

If you're growing any type of plant in really sandy soils, you would benefit from applying fungal-dominated teas. Fungi help to build soil structure, which is always needed in sandy soils. Otherwise, we suggest you cater your tea to the type of plant, as shown in the table above.

Don't be afraid to experiment. If you apply several bacterial-dominated teas, and nothing seems to happen, try a fungal tea for a couple applications.

The most important ingredient in determining which type of tea you produce is your compost. Your compost will ALWAYS be the biggest factor in determining whether you brew a balanced tea, or a tea dominated by bacteria or fungi. If your compost doesn't have any fungi in it, and you don't add any, then there is no way your finished compost tea will have fungi in it!

So how do you make each type of compost?

Bacterial-dominated compost begins with materials that have a lower carbon to nitrogen ratio – materials that are relatively high in nitrogen.. For example, using 30% dry straw (brown material), 45% alfalfa (green material), and 25% manure would produce a bacterial-dominated compost.

Fungal compost could be prepared by using 45% dry straw, 30% alfalfa, and 25% manure.

To create a more balanced compost, use 35% dry straw, 35% alfalfa, and 30% manure.

The amounts indicated in the following recipes are intended for a 5-gallon brewer.

Balanced Compost Tea Recipe

- 1.5 pounds of balanced compost
(equal parts bacterial to fungal biomass)
- 1.6 ounces of humic acids (good quality, well-rotted black peat moss is a potential source)
- 1 ounce of liquid kelp
- 1 tablespoon of kelp meal to provide surfaces for the fungi to attach to
- 1 ounce of soluble un sulphured black-strap molasses



Bacterial-Dominated Compost Tea Recipe

- 1.5 pounds of bacterial-dominated compost (vermicastings work well)
- 2 ounces of soluble unsulphured black-strap molasses
- 1 ounce of soluble kelp
- 1 tablespoon of kelp meal

Bacteria love simple sugars, so feel free to add in a tablespoon or two of maple syrup, cane sugar, or even white sugar. The black-strap molasses is great, because it naturally contains a number of beneficial minerals (e.g. potassium) that feed your microbes and soil.

Fungal-Dominated Compost Tea Recipe

- 2 pounds of fungal-dominated compost
- 2 ounces humic acids
- 1 ounce of liquid kelp
- 2 tablespoons of ground oatmeal
- 2 teaspoons of yucca extract*

Add yucca extract near the end of the brewing process, since it has a tendency to create a lot of foam. Make sure it doesn't have any preservatives, but does have a high saponin content.

Common Compost Tea Recipe Ingredients

Ingredient	Feeds
Molasses	Bacteria
Corn Syrup	Bacteria
White Sugar	Bacteria
Fruit Pulp	Bacteria/Fungi
Kelp	Bacteria/Fungi
Rock Dusts	Bacteria/Fungi
Humic Acids	Bacteria/Fungi

Ingredient	Feeds
Maple Syrup	Bacteria
Cane Sugar	Bacteria
Fish Emulsion	Bacteria
Fish Hydrolysate	Fungi
Ground Oatmeal	Fungi
Yucca	Fungi
Soybean Meal	Fungi

Note - Fungi like to attach to the surfaces of various ingredients while they grow. Some of the above ingredients feed bacteria, and also provide surfaces for fungi to attach too (e.g. kelp).

A Few Fungi Tips from the Experts

Tip #1

If you want to increase the diversity of your compost tea, add a cup or two of healthy garden soil. Better yet, if your compost tea recipe calls for fungal compost, include a cup or two of soil from a nearby forest.

By adding these additional soils, you're ensuring your tea is inoculated with a wide range of soil microbes. These soils are like a biological catalyst, or compost tea activator.

Tip #2

To ensure there is fungi in your tea, you can brew it, and then add spores of mycorrhizal fungi. Mycorrhizal fungi act as a wonderful inoculum to any fungal compost tea recipe. These fungi naturally form beneficial relationships with approximately 95% of all plant species. They aid in nutrient transfer to plants, and help to create better soil conditions.

Tip #3

This tip comes from the incredible book, *Teaming with Microbes*, by authors, Jeff Lowenfels and Wayne Lewis. In it, Lowenfels and Lewis suggest you "give fungi a head start." Since it can be difficult to get fungi to multiply (they do grow in size, just rarely in number) during the compost tea brewing process, the authors recommend growing them prior to the brewing process.

To do this, you'll want to moisten a couple cups of compost (just damp, not dripping wet), and then put it in a light-resistant container. Then grind up some simple proteins (fungal foods), such as oatmeal, and mix them in with the moist compost. Cover partially with a lid, and then place in a warm, dark area. We typically put ours under our sink, or above our fridge in a cupboard. After about 3 days, you'll remove the lid, and find a bunch of fungal [mycelia](#) throughout the compost. You can now use this compost to brew your fungal tea.

Tip #4

Don't accidentally filter out your fungi (and nematodes) when straining your tea. When filtering your tea, be sure your screen is as close to 400 micrometers as possible. Paint strainers, from your local hardware store, work quite well for this function. Avoid using socks or pillowcases, since their fibers are too tight.

An Excellent Compost Tea Recipe For a 5-gallon Brewer

- 1 cup bacterial-dominated compost (usually vermicastings)
- 1 cup fungal-dominated compost
- 1 cup garden soil
- 1 cup forest soil
- 1.5 ounce of soluble unsulphured black-strap molasses
- 1 ounce maple syrup
- 1 ounce of soluble kelp
- 1 ounce humic acids
- 1 ounce fish hydrolysate
- 3 tablespoons rock dust

Once brewed, you can add 1 tsp of mycorrhizal fungi, and 2 teaspoons of yucca before applying.

This information is available online at www.compostjunkie.com/compost-tea-recipe.html