# EM-1 Application Guide for Gardens and Orchards

On garden beds and around fruit trees:

Ratio: 1 part EM to 500 or 1000 parts water once a week, slowing down to once a month.

On compost: 1 part EM to 50 or 100 parts water, once a week to once a month. On manure: 1 part of EM to 50 parts water, to be repeated in case of odor.

Details for special uses

### - EM Compost Tea

This compost tea is low maintenance. Stinging nettles, comfrey or weeds are good materials. Punch them into a bucket, top off with water and 1 1/2 cups of Extended EM-1, and close the lid while leaving a little air space. Added rock dust enhances the quality; also adding garlic or cayenne are helpful pest repellant ingredients. After a week or so, depending on the temperature, the fermented tea is ready to go.

- Fermented kitchen waste in garden beds

You can dig holes or trenches in your garden beds, fill them with fermented or even raw kitchen waste, cover the waste with 5" of soil and plant veggies around the filled-in spaces. EM applications will help decompose the waste. This is best done in fall but works in all seasons.

- Mold prevention in greenhouses

Spray repeatedly with Extended EM-1 diluted 1 to 500. (e.g., 1 Tablespoon per 4 gallons)

- Two EM Super Boosters for fruit trees

1) For one bigger tree, apply around the trunk up to the drip line a mix of 1 gallon Extended EM-1, ½ pound EM Ceramic powder, 20 pounds rock dust, and 25 gallons of water. Continue with three additional applications of Extended EM-1, diluted ½ gallon per 25 gallons of water, in one-month intervals.

2) Dig along the drip line of fruit trees several 1 foot deep holes, dump kitchen waste soaked with EM into the holes, and cover them with 5 inches of soil. EM applications around the tree will help break down the waste.

#### - Slug prevention

Spray two to three times as early as mid-February with Extended EM-1, diluted 1 to 500. This will level the soil pH. This takes advantage of the fact that slug eggs can only hatch in acid soil.

### Composting made simple and safe

Composting is made easy with EM-1. Foul odors and flies are suppressed, the process is sped up, and turning is not necessary. The end product is high-quality, humus-like compost, rich in fermented nutrients, microbes, and attracted earthworms.

#### Application guide

Dilution: 1 part Extended EM-1 to 100 parts water; on manure, 1 part to 50 parts. Frequency: Once or twice a month, or as often as needed to control odor and flies. Keeping the compost material moist helps the decomposition.

#### Composting matters

Roughly 60% of all our waste consists of organic matter, and about 25% is food waste, filling up the landfills! EM Technology could ease the way to recycle organic waste and give it back to nature.

#### **Oxidation Versus Fermentation**

There are, in general, two different ways to break down organic matter. One is the anaerobic approach through fermentation and the other is using oxidation and aerating. The fermentation approach is used traditionally in Asia, whereas in the West, specifically at commercial facilities, composting is based on oxidation. The main advantage of fermentation is that nutrients are preserved and improved by added probiotic values. EM Technology induces fermentation.

## Composting Kitchen Waste: From WASTE to WONDERFUL

An elegant way to produce high-quality EM compost from your kitchen waste is by using a 55 gallon, wide-mouth, screw lid-type of drum with a cut-off bottom. You set it in a 5 inch hole and berm it with the dugout soil, best at a sunny spot to foster fermentation. Everything goes in there, including dairy, meat, bones, citrus, and paper; of course, no plastic or other non-compostables. ©



You may spray Extended EM-1 on the organic scraps in the kitchen.

Rodents and flies don't have access because it is a closed system. All you want to do is frequently apply Extended EM-1 and keep the lid tightly closed to secure fermentation and protect against mold.

Once the drum is full, it has to sit another two months or so with a closed lid to mature. Then you lift up the drum and voila, you have a heap of rich and lively compost. Pockets of whitish growth are OK as it is beneficial yeast. In case the compost is not quite metabolized, it can be covered with a layer of dirt and frequently sprayed with Extended EM-1. Ideally you would have a second barrel to continue after the first one is filled up.