

## Activated EM!

Activating good “effective” microbes for the soil and other uses. Activated EM is simply an economic way of using EM-1. This recipe extends the quantity of EM-1 by mixing it with molasses and water. The common uses of this formula are for body spray, household freshener, cleaner, plant spray. Also to make fermented bran (bokashi) as a compost accelerator, fermented bran as cat-litter or make mud balls to help clean a pond.

### How to Make Activated EM

#### Preparations

- Water - preferably **warm** tap water.
- Implements - bowl or bucket to mix in, measuring cup, PET plastic bottle(s), and (optional) a funnel.
- Ingredients - see list below.

#### Ingredients

- 1 part EM-1
- 1 part molasses (blackstrap, unsulfured sugarcane molasses, or other such high sugar material)
- 20 parts water (optional: **heated** to 100-120°F to make it easier to dissolve the molasses; otherwise, simply **dissolve the molasses** with a clean hand)

Example for making 1 quart

For the above ratio of 1:1:20,

1 part EM-1, 1.5 fl oz of EM-1

1 part molasses, 1.5 fl oz of molasses

20 parts water, 30 fl oz

## How to Make Activated EM cont.

### How To Mix

1. Using a bowl or bucket that holds at least 1.5 quarts or more, mix in the EM-1 and molasses; make sure to **dissolve all of the molasses** (if by hand, rub inside the bowl or bucket until it's all gone, i.e., you don't feel the thick molasses on the bottom anymore).
2. Pour the mixture into a quart (or liter) size PET bottle, such as, a soda bottle which can handle any gas pressure buildup. A funnel would be helpful to pour into the bottle.
3. Let **ferment for about 2 weeks**. Store out of direct sunlight. Optionally, you can use a pH meter or pH paper; when the **pH is 3.7** or below, it is ready.
  - **Check Daily** for gas build-up; release by very slightly opening cap; do so over a sink.
  - When ready, apply as suggested below, and **use within 45 days**. Store out of sunlight. Prolonged sunlight will damage the microbes. Opaque container +
  - Keep **airtight** and at room temperature.

### Applications of Activated EM

The oz/gallon refers to fl oz of Activated EM per 1 gallon of water.

1. **Garden / houseplants**  
Use 1 oz/gallon for watering your garden and houseplants. You can apply with every watering or at least once a week.
2. **Foliar feeding** (spraying to the plant leaves): Use 0.5 oz/gallon for, or about 1 teaspoon/quart of water. Spray every other week or once a month.
3. **Regular laundry**: use half the amount of your laundry detergent and the other half with Activated EM.
4. **Stains**: Use 10 oz/gallon for tough stains, especially on grime, greasy or oily stains or buildup, including ovens, oven hoods, drains, etc. For best results, let soak for several minutes.
5. **Air Freshener**: Use 2 oz/gallon (2-3 teaspoons/quart) for odor problems, including urine, as well as for general cleaning (floors, windows, etc.). Use a spray bottle where useful.

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Edited by DD Maucher, MosCollective.net 8/8/2010

Reference: Edited 5/27/2010 by E. Shig. Matsukawa & Eric Lancaster of GoodMicrobes.org. Their reference: EM Research Organization (EMRO) emro.co.jp (English version: emrojapan.com)

TeraGanix (teraganix.com) dba EM America

EM-1 is OMRI Listed (Organic Materials Review Institute), omri.org, and can be used by certified organic operations.