

RECIPE: EM[®] FPE

(Fermented Plant Extract)



For centuries extracts have been used as elixirs for all sorts of ailments. People would seek out certain plant materials that were known for their beneficial properties and ferment them to extract the desired benefits.

This same technology can be used to extract properties from plants such as geranium to make a citronella extra for keeping away mosquitoes. Hot peppers and garlic are also known for their pest-detering properties.

If you incorporate companion planting (basil with tomato), you may find a winning combination to give the effect you want. You can use nearly any plant material known for some benefit in this extract, whether it is for companion planting, pesticide, antifungal effects, or micronutrients.

Weeds and other green material can be recycled into an organic foliar spray and insect repellent.

During fermentation EM-1[®] is able to ferment weeds and extract organic acids, bio-active substances, minerals, and other useful organic compounds from these materials which are able to promote plant growth and repel diseases or insects.

MATERIALS:

5 gallon buckets with airtight lids, [EM-1[®]](#), [pH Paper](#), molasses, water, leafy plant material, and a tablespoon.

PROCEDURE:

1. Collect plant material such as weeds, vegetable trimmings, and leaves. If possible chop the plant material into small pieces (i.e. 2" x 2"). Fill the bucket with as much material as possible. If using dried plant material, such as "meals"(such as alfalfa meal), use 1 cup per gallon of total liquid.
2. In a separate container prepare EM-1® solution at 1:1:20. (3/4 EM-1, 3/4 Cup of molasses and fill the gallon with hot filtered water).
3. Pour the EM-1® solution over the plant material, filling the bucket all the way to the top.
4. Seal bucket with an airtight lid.
5. Place solution out of direct sunlight and allow material to ferment for a period of 2 weeks. After 2 weeks test the pH using pH paper. The solution pH should be between 3.2 and 3.7.
6. Strain off the liquid into another container. **The strained liquid is the Fermented Plant Extract.**
7. The EM-1® FPE is used as a foliar spray to prevent pest damage to plants. Dilute this solution 1:500 (1.5 tsp per gallon) and spray on plant leaves as needed.
8. The fermented plant material (not the liquid) can be used as a nutrient-rich fertilizer or compost starter. If used as a fertilizer, spread it out very thin due to its strength.
9. Store unused EM-1® FPE in a dark place with relatively uniform temperatures. Solution may be stored up to 90 days.