

How to spray Activated EM to food waste "bokashi spray"

500 ml => 10 gallons food waste (or 5-gallon bucket x2).

About 2 months supply, if it takes 1 month to fill a 5-gallon bucket.

What You Need

1. **Activated EM** (500 ml bottle).
 2. **mist sprayer** (8 fl oz size spray bottle, if available).
The finer the mist (smaller liquid spray droplets), the better the liquid will stick to or penetrate the food waste. A regular sprayer (such as the regular quart size cleaning spray bottles) will have larger liquid spray droplets and therefore may more likely roll off the food waste.
 3. **airtight buckets** (5-gallon or any size that's airtight).
- Fill the mist sprayer bottle with Activated EM.
 - Keep the unused Activated EM closed and squeeze out as much air as possible for longer shelf-life.
 - Keep the Activated EM out of direct sunlight and at room temperature. Do Not refrigerate.

Step 1. Mist spray the food waste once before you add it to the airtight bucket and once afterwards.

Step 2. Press down on the food waste in the bucket with a plate (or similar) to squeeze out air and make room for more food waste.

Step 3. When bucket is full, let it sit to ferment for at least 2 weeks airtight at room temperature (1+ month if >50°F, 10°C).

Optional: if when lid is closed (snapped shut), but it can be easily forced to rotate separately from the body of the bucket, then it is not fully airtight (which can cause bad odors). You can use a plastic sheet (or similar) to put over the opening of the bucket and close the lid over it to create a better airtight seal.

How to Use the Fermented Food Waste (FFW)

After the food waste is fermented*, use it as a soil amendment, with the following 3 general options:

- * Ferment at least 2 weeks at room temperature; at least 1 month if colder temperatures, but above 50°F, 10°C. If outside, can bury the 5-gallon bucket into the ground or compost bin.
- ** Browns: torn up leaves, plant matter, small branches, wood shavings, and/or mulch.

Option A. **In pots/planters**, sandwiched between soil.

1. Add bottom layer: rocks, pebbles, or gravel for drainage.
2. Add soil to about 1/3 the height of the pot/planter.
3. Add FFW, thickness of about 1/4 the height.
4. Mix into the FFW, some soil, and if available, some browns**.
5. Fill the rest with soil only, top 1/3, absolute min. 2.5 inches (6.4 cm).
 - if less than 2.5 inches, then overflow and mound the soil on top.
 - Do **not** compress the soil (prevents FFW to break down quicker).
6. Put leaves or mulch on top to maintain moisture.
 - Otherwise, spray or add small amounts of water daily to maintain moisture (do not overwater which can wash away nutrients and soil microbes).
7. After 2 weeks, plant seeds or seedlings.

Option B. **Bury/trench in soil** (garden bed, backyard, landscape)

1. Dig at least 1 foot away from existing plants and 3 feet away from trees.
2. Dig about 1 foot deep (length of most shovel heads).
 - If too difficult to dig, then step 5 below, mound with 8 inches of soil over the FFW mix, and step 6, add extra layer of leaves (if a large mound, it will settle over time).
 - If can and willing to dig very deep (2-3 feet), can add multiple layers of FFW mix, soil only, and then browns only, repeat steps 3 and 4 (lasagna style).
3. Add about one shovel of FFW per square foot (roughly 2 lbs per square foot).
4. Mix in some soil, and if available, some browns.
5. Cover completely with soil, at least 6 inches or more. Do **not** compact the soil.
6. Cover on top with leaves and/or mulch or other plant matter to maintain moisture.
 - Either wet down the leaves and/or weigh with branches so they don't easily fly away.

Option C. **Add to compost** / make compost (compost bin, compost pile, or worm bed)

a. **Passive method** (worm composting, ASP-aerated static pile, or cold composting):

1. Either on the ground or on a wood platform, add a bed layer of browns.
 - If in a box (raised bed, compost bin) or inset into the ground (1/2 ft down), fill with browns.
2. Add FFW in the middle, 1 shovel per sq ft (leave about 6 to 8-inch buffer around the FFW).
3. Mix in different browns (whatever is available) into the FFW.
4. Completely cover with browns, at least 6 inches, spilling over and covering the buffer area.
5. May take 6 weeks to 7-9 months (depending on temp., rain, microbes, insects, worms).

b. **Active method** (hot composting/thermophilic composting):

1. Either in a compost bin (cubic yard size), or in-vessel device (e.g., Urban Tumbler).
2. Either fill to 2/3 with browns and add FFW in the center, mix with browns, but try to leave as much buffer of only browns around the edges (6 inches thick). If cubic yard bin, add up to 4 x 5-gallon buckets of FFW (20 gallons total); if in-vessel, fill to about 80% in addition to the 2/3 browns.
3. At least once a week (ideally every other day), turn the compost, add water to keep moist:
 - Minimal turning (slow): using a compost turning tool: auger, aerator, crank, winged aerator.
 - Thorough turning (fast): remove from bin, mix up with shovel/pitchfork, put back in bin.
4. May take 4-6 weeks to 6 months depending on turning method and frequency.