

Proposed Standards for Worm Composting

PRODUCTION METHOD:

Bedding: materials to include:

- (1) clean paper/wood sources (no pressure treated lumber)
- (2) soil from old growth forest
- (3) coconut coir
- (4) plant material (no seeds)

Feeding: 1-2 times per week, depending on inputs

Moisture: maintain optimal moisture of 70% throughout vermicomposting process, including storage

Duration: castings are ready after 2-4 months, depending on bin type

Harvest:

- (1) Flow-through worm bin: Harvest from bottom of bin
- (2) Windrow: continuous windrow, with worms moving with food. Harvest area after worms have moved through
- (3) Batch: feed one side of bin until most worms migrate to that side, harvest other side

TESTING:

- (1) Microscopy: note microbe population, bacterial/fungal balance, look for signs of anaerobic conditions
- (2) Lab test: check for plant available nutrients. Repeat when inputs/conditions change

STORAGE:

To ensure life of microbes are maintained castings should be stored in breathable plastic bags that allow gas exchange

INPUTS:

Animal and plant materials include:

- (1) Raw animal manure matured more than 120 days
- (2) Thermophilic compost that has been treated in the following manner:
Method 1:(ii) maintained a temperature of between 131 F and 170 F for 3 days using an in-vessel or static aerated pile system; or
Method 2:(iii) maintained a temperature of between 131F and 170F for 15 days using a windrow composting system, during which period, the materials must be turned a minimum of five times.
- (3) Grains: only non-GMO, organic
- (4) Vegetable Waste: from organic vegetables, all seeds removed, avoid onion/garlic
- (5) Fruit pulp and peels, avoiding acidic fruit such as citrus and pineapple
- (6) Trace minerals (ie. Basalt Rock Dust)
- (7) Yard waste from known sources (chemical free), including:
 - a. grass clippings from untreated lawns

- b. weeds, seeds removed, broken down/shredded
- c. remains from harvested crops, broken down/shredded
- d. leaves (shredded or partially decomposed)
 - * avoid needles from pine, fir and cedar trees
 - * avoid leaves from magnolia, bay and eucalyptus trees

(8) Paper waste:

- a. corrugated cardboard
- b. non-glossy paper with soy-based inks only

(9) Other food waste, including:

- a. eggshells
- b. coffee grounds

(10) Other organic waste, including:

- a. coconut coir
- b. garden soil
- c. sawdust (no pressure treated wood)

CASTINGS AS AMMENDMENT TO SOIL MIXES:

To state that a soil mix contains worm castings it must be noted the percentage of worm castings in each mix (10% recommended)

WORM COMPOST TEA:

Inputs:

- (1) Approved castings
- (2) Organic amendments (molasses not recommended – causes over-population of bacteria)
- (3) Non-chlorinated water

Method:

- (1) Vessel must be clean, free of biofilm (use hydrogen peroxide as cleaning agent, avoid chemical cleaners)
 - (2) Vessel should be ‘cone shaped’ to ensure there is no area for anaerobic microbes to hide
 - (3) Water stones or other small orifice bubblers should be avoided since biofilm collects in these small holes and cannot be removed
 - (4) Aerobic conditions should be maintained within the brewer (minimum power of 1.35 watts per gallon) for 24 hours
 - (5) Finished compost tea should be tested microscopically approx. 1X per month, or if changes are made to inputs or method of brewing. Microscopy measures ratio of bacteria/fungi, presence of anaerobic microbes and numbers and condition of predator microbes
- Samples to test should be taken after 24 hours to ensure aerobic, balanced conditions
- (6) Compost tea should be used within 8 hours. Tea should not be stored in sealed containers for more than 4 hours
 - (7) All jugs/sprayers should be labeled indicating that it should be applied immediately.

Do not store

- (8) Dilution possible. No restrictions

**No anaerobic areas: recommended inverted cone-shaped
wouldn't say all nozzles removed - clean any surface or hosing that comes in contact
with tea**

(9) Tank should be emptied completely with all nozzles removed after each brew. (see cleaning in bullet point (1))

These regulations were written by Monique Bosch (Wiggle Room LLC) and Nancy Warmer (Worm Ladies of Charlestown). These worm composters have a combined experience in vermicomposting of over 35 years.