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# Vermicompost - Composting with Decomposing Worms: Basic Facts and Small Scale Systems

Composting worms are nature's top decomposers. Most commonly used in farm and home scale operations are: Eisenia Fetida Red Wigglers, European Nightcrawlers and Indian Blues. One pound of these worms can transform half to one pound of food waste into nutrient and life rich organic compost in 24 hours. This fertilizer, called worm castings or vermicompost, is considered the black gold of organic gardening and farming. It can be added to the garden soil directly from the bin, including some of the worms too, or as a water extract or aerated tea. With the right conditions, composting worms can double their population and capacity to compost every 3 months. In a bin, composting worms need good air circulation, carbon rich bedding, continuous balanced moisture and the right type and amount of food on a regular basis.

#### What to feed them:

- (always) veggies and fruit scraps, coffee grounds, tea bags and even avocado pits
- (sometimes) rinsed egg shells, grass and garden clippings (no pesticides)

#### What not to feed them:

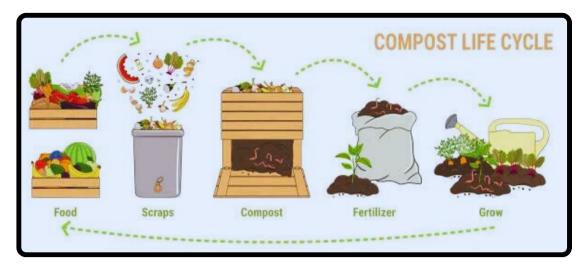
• meats, bones, dairy products, citrus peels, onions, processed foods and foods cooked in oils and with spices

### Bedding:

- (best) shredded corrugated cardboard, shredded newspaper, coconut coir and peat moss (they will consume this also)
- (never) glossy paper and plastic based products
- (not recommended) wood chips and shavings, dried leaves, straw and mulch

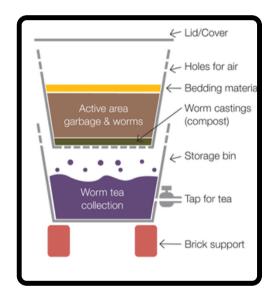


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## Simple Home Garden / Small Farm Vermicompost System

- 1. Ensure good air flow in your bin by drilling  $\frac{1}{2}$  to  $\frac{1}{2}$  inch holes in the bottom of it and making sure its lid is not airtight.
- 2. Place a few pieces of wood on the bottom of the catchment container before placing the worm bin in it. Liquid from the worm bin will collect in the space created (at least 1 inch). Dilute this "worm tea" to 5 parts water and use it in your garden any time.
- 3. Place 3 to 4 inches of bedding material at the bottom of the worm bin and gently introduce the worms on top of it.
- 4. Place food scraps next to the worms. The amount of this first feeding should be half of the weight of the worms population introduced. In all feeding, the smaller the pieces of food scraps, the easier and faster the worms will consume and transform them into castings.



- 5. A good practice is to store the food scraps in an airtight container, for no longer than 5 days, and then use a food processor or blender to grind them down.
- 6. Add another 3 to 4 inches of bedding to cover the worms and the food scraps completely, and water the entire surface with  $\frac{1}{2}$  to 1 full cup of water.
- 7. Feed worms every day or when you observed that most of the food you placed is gone. This can take up to 1 week, depending on the amount and type of food you are feeding them. You can feed them by moving the top bedding to one side, placing the food scraps on top of the castings and covering it back up. If the bedding is almost gone, you can place the food waste on the surface and add 3 to 4 inches of new bedding on top of it.
- 8. Keep moisture at the top like a wrung out sponge. You can achieve this by adding a glass of water if the top layer is dry.
- 9. If foul odors or flying insects are present around or inside the bin, remove any moldy or decaying food and place more bedding.
- 10. You can harvest worm castings anytime and use them directly in the garden as any other compost applications.
- 11. Be gentle every time and never mix the components of the bin.

Thank you for being part of the solutions for a thriving regenerative world!