

## FACT SHEET

### Vermi-Composting: Where the worm squirms and you benefit!

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Vermi-composting is the process of breaking down organic matter into nutrient-rich compost through the use of worms. The end product, worm castings, improves soil structure and texture, aerates the soil, increases water holding capacity, and adds beneficial nutrients to the soil. Any old (or young) worm just won't do. Red Wigglers and Yellow Tails are two of the best composting worms. They are favored because they reproduce quickly, eat the most, are ideal bait for fishing, and a good food source for birds and small pond fish. Let's get started!

#### **Materials needed to prepare a worm bin:**

- 1, 14- to 18-gallon plastic container (*Make sure the lid fits tightly or the worms may escape.*)
- 1, 12"x12" square of window screen
- Duct tape
- Shredded newspaper (no slick ads)
- Distilled water or rain water
- 1 cup of sand or crushed volcanic rock
- 2 pounds of Red Wigglers\*
- Electric drill with 1" spade bit

#### **Preparing the worm bin:**

Drill 10 holes (2 per side about 4" from the top of the bin and 2 in the lid). Do not drill holes in the bottom of the bin because the worm 'tea' will leak through. Cut pieces of window screen to cover holes and duct tape screen to the inside of bin. Shred newspaper lengthwise into 1" strips for use as bedding (and a food source for worms). Moisten the strips of newspaper in water. Wring out the newspaper before adding it to the bin so that it is as moist as a damp sponge. Fill the bin two-thirds full with damp newspaper. Spread 1 cup of sand/crushed volcanic rock on top of newspaper. Add kitchen scraps. Add worms onto the surface of bedding, sand and kitchen scraps. Composting worms do not burrow deep into the ground.

In order to survive, vermi-composting worms need: food, air and water. Worms like a variety of food. Their diet includes shredded newspaper, cooked pasta, vegetable and fruit peelings, egg shells, coffee grounds and filters, tea bags (without the staple), bread and cardboard. Worms don't have any teeth and grind their food in their gizzards. They don't have noses or lungs, and breathe through their skin.

#### **Care for your worms:**

**Feeding:** One pound of worms can process one pound of kitchen scraps a day. Feed them daily, weekly, or as desired. The smaller the pieces of food, the faster the worms can turn them into castings.

**Temperature:** The ideal temperature for worms is between 60° F and 80° F.

**Moisture:** Check moisture when adding food. If too wet, add more bedding. If too dry, add water.

**Darkness:** Worms are light sensitive. Place bin in a low light location (e.g. under a sink or in a bathroom with blinds closed). Also, use an opaque bin for your worms to decrease the light.

**Harvesting worm castings:**

After two or three months, the worms will have recycled the bedding into rich, dark compost/castings. Here are two ways to harvest the castings:

- Dump all of the contents of the worm bin onto waxed paper. The worms will crawl to the bottom. Scoop the castings off the top.
- Gently push all the contents in the container to one side. On the other side, add moistened bedding and food. After a few days, the worms will migrate to the food and bedding. Remove the castings, but check for any worms that may still be there.

**Uses for worm castings:**

- Soil amendment
- Mulch
- Compost Tea: Place compost in a burlap bag or pantyhose leg. Tie off at top. Put into bucket of water. Leave overnight. In the morning you will have compost tea to water your plants.
- Potting soil: Mix 1/4 part worm castings, 1/4 part perlite, 1/4 part peat, and 1/4 part builder's sand
- Fishing: To fatten worms, feed them dog food and decrease water to toughen their skin.

This is just one more way to **Reduce, Reuse and Recycle** sending less kitchen waste to recycling facilities.

For assistance with horticultural questions, call the Hillsborough County Extension Service, 5339 County Road 579, Seffner, FL 33584 or call: 813-744-5519. More gardening information is available at <http://hillsborough.extension.ufl.edu> and <http://edis.ifas.ufl.edu>