

getting to a layer where there are worms, stop and let the worms retreat to the dark (about an hour or so), then take off the next layer, ...and so on until you have a very concentrated lump of worms. At this point you can add new bedding and food to the bin and off you go. You could also divide them and give some away to your friends. As you remove compost you can remove any large uncomposted food or bedding and add to the new bedding.

For more information contact the Island County/WSU Waste Wise program at 360-678-7974, 360-321-5111, ext. 7974, 360-629-4522, ext. 7974 or halljn@wsu.edu
Worm bins for sale
Red worms often available at no charge
Free consultation and troubleshooting
Worm composting presentations

Worm Composting Basics

Troubleshooting

Too wet

- Try adding more dry bedding.
- Open lid to dry bedding (as bedding dries, mix with a garden claw).
- Not enough drainage holes?

Fruit flies

- Be sure to bury scraps deep and keep a thick layer of bedding on top.
- Place a whole sheet of damp newspaper, cardboard or black plastic on top of all bedding.

Other insects

- Worm bins have many forms of life other than worms! Other insects/organisms in your worm bins are OK, & are beneficial to the vermicomposting process.

Odor

- Make sure you haven't added too much food.
- Reduce moisture (see "Too wet")

Too dry

- Add moisture (remember... "no wetter than a wrung out sponge").

Worm migration

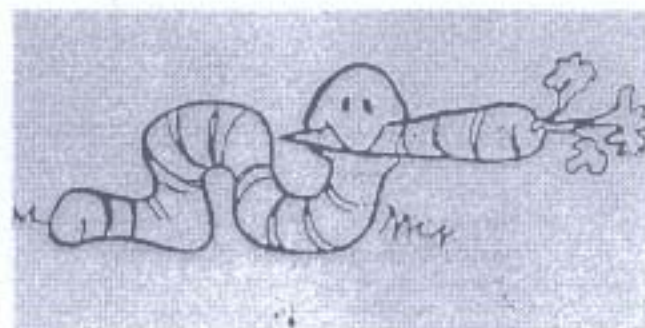
- This happens every now and then. (They don't call them worms for nothing!)



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Turn your food waste into wonderful compost!



A Quick Excursion into Vermicomposting*

Worms

The Red Worm (*eisenia fetida*) is the worm of choice for your worm bin. Other garden worms, such as, earthworms and nightcrawlers eat more dirt than kitchen scraps and their preferred habitat is deeper in the soil where the temperature is more stable. You will need a large handful or two of worms to get started. You can find red worms under manure piles or fallen leaves or call the WSU Waste Wise Program.

The Worm Bin

A wooden bin is ideal, but you can use bins made of plastic, metal, or other materials. Plans for building a wooden bin are available from the WSU Waste Wise Program. Worm bins should be from 12-24 inches deep and have a tight fitting lid. Estimate or weigh the amount of garbage generated by your household in a week. A worm bin should have one square foot of surface area for each pound of garbage per week. For example, 5 to 6 pounds of waste per week will require six square feet of surface area (2' x 3' x 1'). Enough surface area is one of the secrets of an odor-free bin because more oxygen is available due to better aeration and more locations to bury waste. Drill holes in the bottom of your bin for drainage. If the bin is plastic, drill additional holes on the sides for ventilation, since plastic will retain more moisture. Worms do best when environment temperatures are between 55 – 77 degrees F.

**Vermiculture is a process that uses worms to breakdown organic waste.*

A very basic procedure for getting started

Bedding

Bedding provides a healthy habitat for your worms. The bedding is also a food source and an odor barrier. Brown leaves or straw are ideal. Shredded newspaper, cardboard, or computer paper will also work and are readily available. A mixture of two or three of the above ingredients works well. Fill your bin $\frac{3}{4}$ full of moist, but not dripping, bedding. Moisten bedding by submerging or soaking in water, then draining out excess moisture. Worms absorb oxygen through their skin, which must be moist for the exchange of gases to take place. Worm bedding should be no wetter than a wrung out sponge. Too much moisture will drown your worms, or worse, a malodorous aura will encompass your bin (Phew!). Add a couple of handfuls of soil or dry corn meal to provide grit for the worms, aiding in food digestion. Place a whole sheet of newspaper, cardboard or black plastic on top of all bedding and you're ready to go! Replenish bedding when necessary.



Composting uses microbes and heat to breakdown garden waste (grass, leaves, etc.) into compost



Worm cuisine

Worms like fruits and vegetables, squash, pumpkins and melon rinds are favorites. Salad, pasta, coffee grounds, tea bags, along with paper filters, eggshells, rice, cereal and bread products are also eaten by worms. If pieces are small, worms can break down the food faster. Bury food scraps completely under the bedding in a different spot each time. Do not put meat, fish, dairy products, oils or grease in your worm bin, those will attract rodents and cause odor.

Harvesting

After three to six months, it's time to harvest the compost. There are two ways to accomplish this.

1. Move all composted bedding to one side of the bin, and then add fresh bedding to the other side. Place food for worms only in the new bedding. The worms will eventually migrate to the new bedding. This method is slow (How fast can a worm move?), and somewhat inefficient, as some worms won't migrate to the new bedding.
2. Remove or open top from the worm bin and dump contents of bin onto a tarp to expose composted bedding to light. As the worms dive towards darkness, scrape off the layer that the worms vacate. When you start