Vermiculture: Easy, Clean and Fun! by Janean Thompson Potter County Master Gardeners





VERMICULTURE



WHY COMPOST WITH WORMS

- Worm composting is a method for recycling food waste into a rich, dark, earth-smelling soil conditioner.
- Many gardeners compost yard waste and kitchen scraps during the growing season, but worm composting can be done indoors, allowing for year around composting of kitchen scraps.
- Recycling household organic waste into compost allows us to return badly needed organic matter to the soil. In this way, we participate in nature's cycle, and cut down on garbage going into landfills.



As messy as this looks, there is almost no odor to the mix of food scraps, paper, cardboard and coffee grounds, etc.

WHAT DO I NEED TO GET STARTED?

Container - A bin needs to be 8" to 16" deep. You can build your own bin, use a washtub, a dish pan or a commercially available worm bin.

Just make sure your bin has a lid and holes for ventilation.

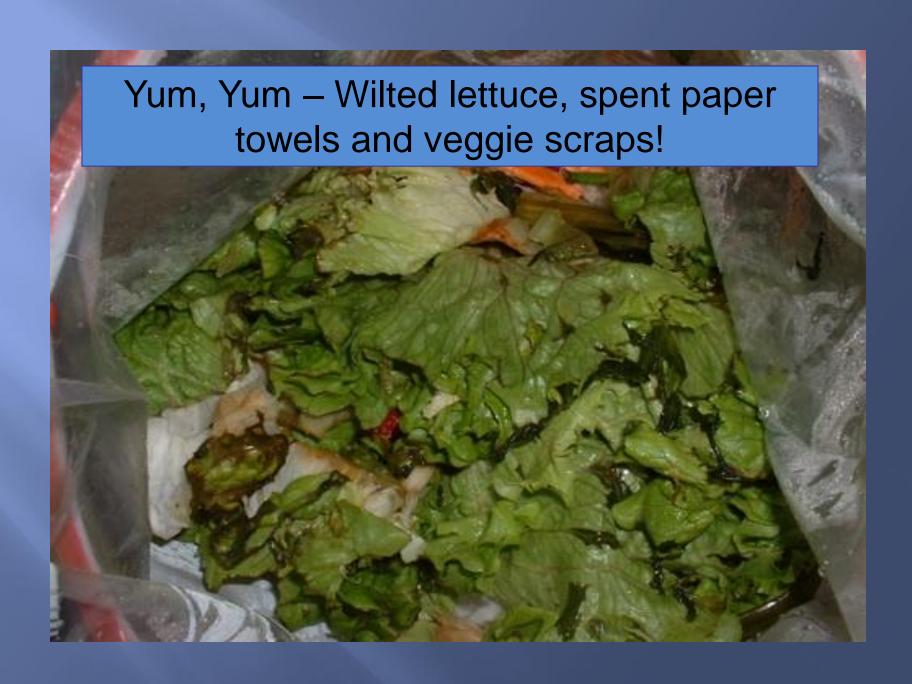
Bedding - Black and white newspaper is readily available and easy to use. Tear it into strips (or use a shredder) and moisten so it is as damp as a wrung-out sponge.

Worms or "red wigglers" - They are different from the earth worms you find normally in the ground. These red wigglers have a big appetite, reproduce quickly and thrive in confinement. They can eat more than their own weight in food every day. One pound is all you need.

DO compost: vegetable scraps, fruit peelings, bread and grains, tea bags, non-greasy leftovers, coffee grounds and filters, well-crushed eggshells and spent paper towels.

DO not compost: meat, bones, fats, dairy products, rubber bands, twigs and branches, dog and cat feces, greasy foods.

BEGIN feeding your worms lightly at first. As they multiply, you can add larger quantities of food wastes. Bury the waste into the bedding regularly, rotating around the bin as you go. When you return to the first spot, most of the food you buried there should have been eaten. If not, don't worry, just feed a little less for a while.



Where are you going to keep your worms?

- Inside or outside?
- Find a spot inside and you can compost year around. Inside, your container will need ventilation holes in the top - and a tray to collect excess water from the bottom.
- Any spare space can be used as long as temps stay between 40-80°F. A cabinet under the kitchen sink is perfect - and convenient.

- Outside, bins can be kept in sheds or patios. They should be kept out of hot sun and heavy rain.
- If temps drop below 40°F., they should be moved indoors.

MAINTAINING YOUR BIN

If you have the correct ratio of surface area to food scraps to worms, there is little to do other than adding food, until about 2-1/2 months have passed. By then there should be little or none of the original bedding visible in the bin and the contents will be brown and earthy looking worm castings. The contents will have substantially decreased in bulk too.

HARVESTING FINISHED COMPOST

 Here are a few simple methods for collecting your finished compost

Move the contents to one side, place fresh bedding in the empty space and bury your food wastes there for a month or so. The worms will migrate to the new food and bedding and you can harvest the finished side.

Spread a sheet of plastic out under a bright light or in the sun. Dump the contents of the worm box into a number of piles on the sheet. The worms will crawl away from the light into the center of each pile and you can brush away the worm compost on the outside by hand.

Soon you will have wiggling piles of worms surrounded by donut-shaped piles of worm compost.

If you have the time or want to use all the compost, you can dump the entire contents of the bin onto a large plastic sheet and separate the worms manually.

Children love to help with this process and you can turn it into a fun lesson about worms for them. Watch out for the tiny lemonshaped worm cocoons which contain between two and twenty baby worms.

USING YOUR COMPOST

- Worm compost is more concentrated than most other composts because worms are so good at digesting food wastes and breaking them down in their digestive tracts into simple plant nutrients. Use sparingly for best results.
- Houseplants: Sprinkle worm compost around the base of plants to fertilize. Each time you water, plant nutrients will seep into the soil.

- Potting Mixes: Mix one part worm compost with three parts potting mix.
 Peat moss, perlite and worm castings are also a good mix.
- Garden: To mulch with worm compost, apply a one-inch layer to the compost around plants, or mix with soil in the bottom of planting hole when planting seedlings.

COMMON PROBLEMS & SOLUTIONS

If your worms are dying...

- Not enough food
- Too dry (bedding should be slightly damp)
- Too wet (add more bedding)
- Too hot (move to shade)

If your bin smells bad...

- Not enough air circulation.
- Exposed food. Secure the lid, cover food scraps with bedding.
- Don't overload food scraps. Bin contents will become too wet and decrease oxygen and circulation.
- Worms might have been underfed and have died.

WORMS & INFORMATION

- Unclejimswormfarm.com (great prices)
- Gardeners.com (Gardeners Supply Co)
- Composters.com
- PlanetNatural.com
- Worms Eat My Garbageby Mary Appelhof
- Urban/Suburban Composter
 by Mark Cullen and Lorraine Johnson
- The Worm Book
 by Koren Nancarrow and Janet Hogan Taylor



New Condo! Construction completed June, 08



Day 2 – Settling into new surroundings



Alas, within a year

- The colony was dead. Conditions were too wet in their condo and they drowned.
- Lessons: don't feed too much and not too wet
- Cover the food as you add it
- Save all napkins and paper towels, they are great additions to compost

UPDATE: 2012

CHRONOLOGICAL RECORD: NEW ATTEMPT



NEWLY ARRIVED WORM HOTEL:

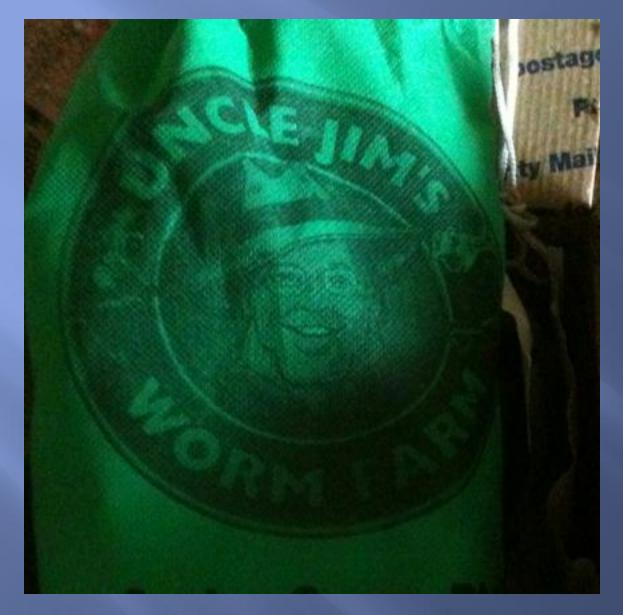
- 4 Levels of composting
- Vented for air circulation
- Worm Tea collection bin at bottom – with spigot

AUGUST, 2012

Purchased commercial multi-level worm composter set up.

Bought 2,000 worms.

Bedded them with soaked computer shreds and coconut fiber peat-type material.



WORMS ARRIVE:

- Clean
- Odorless
- In moist nest of peat moss
- Ready for hotel

WORMS LIVING THE GOOD LIFE!



July, 2013

They are thriving.

NO SMELL, NO MESS AND EASY COMPOSTING OF VEGETABLE WASTE!



CHECKING WORM HEALTH:

- Moist
- Active
- Good color
- No odor

Local Worm Grower:

New information:

Miraposa Nursery
On Washington 1 block north of I40

Cost estimate: \$30-35 per 1,000 (2013)



THE END