

Vermicomposting

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Meet Your Presenters



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What is Vermicomposting?

Earthworms and microorganisms convert organic materials to a beneficial soil amendment.



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Don't Confuse What's the Difference? with Vermiculture



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Vermiculture =

Raising Earthworms for bait

Vermicomposting =

Using worms to make compost



Earthworms

- 9,000 species
- Only 10% are beneficial
- Eisenia fetida (red worm)
- Eisenia fetida (red worm) to secrete mucus
- A more common red tiger worm.



posting

at the

addition

worm or



Know the Scientific Name

As a few other worm species are also called red wigglers and those include:

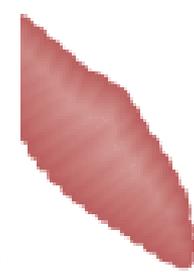
- Lumbricus rubellus “Red Earthworm” which is native to Europe
- Amynthus genus “Jumping worms” which is native to Asia





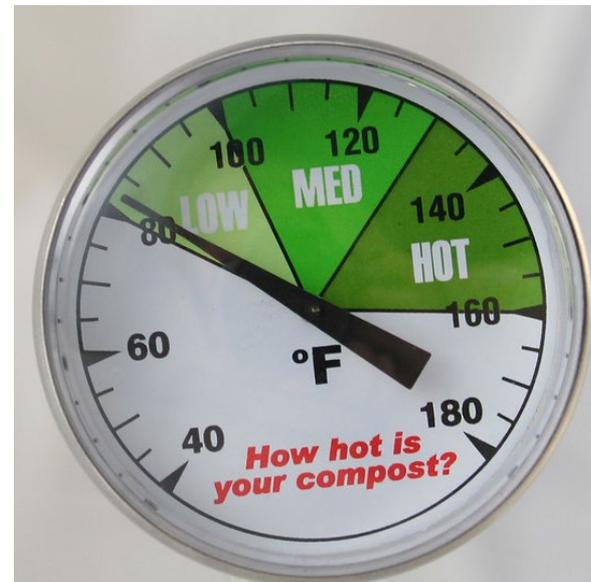
Bi

- Circular
- Longitu
- Male reproductive organs
- Hearts
- Cerebral ganglia
- Mouth
- Nephros



Bin Location

- **Anywhere as long as:**
 - Air can circulate around it
 - It isn't in direct sun light
 - The internal temperature is 59-77 degrees F





Types of Vermicomposting Bins



Filling the Bin

- Sourcing the worms
- How many worms
- What do they eat
- Adding food
- Harvesting the worms



Sourcing the worms

- Worm farms on the internet
- Friends who already have worm bins



How many worms

- 1000 worms = about 1 pound
- Cost \$20 - \$50



What DO they eat

- **Fruit and vegetable scraps**
- **Coffee grounds and filters**
- **Tea and tea bags (remove any metal)**
- **Eggshells (wash out the protein)**
- **Paper, Cardboard**
- **Bread**
- **Leaves**

Chop these up finely this will help the worms have an easier time eating them.



What DON'T they eat

- **Meat of any kind**
- **Dairy products**
- **Fats or oily foods**
- **Citrus or Acid Foods**
- **Onions or Garlic**
- **Bones**
- **Salty foods**
- **Glossy Paper or Magazines**
- **Non-Biodegradables** (plastics, rubber, glass, etc.)



Adding Food and Bedding

- Start with a layer of shredded paper
- Then add chopped food scraps and worms
- Finish with another layer of paper

The paper should be moistened before you add it to the bin, especially if it is a new start-up bin.

The paper can also be added dry if the bin becomes too wet during the process.



Challenges

- Too Wet
- Odor
- Low reproduction rate
- Escaping Worms
- Pests



Bin is too wet

Check your Green/Brown Ratio

- Lay off the high water content food items
- Add “Browns” to help absorb moisture
- Excess water (compost tea) is a very effective liquid fertilizer. Collect it and use it on your plants.



Odor

- Your bin should not have an odor to it if you always bury the food and or cover it with a layer of bedding.
- You have over fed your bin! Yes, you can put too much food waste in your worm bin! Only add as much food as the worms can contend with at a given time.



Low reproduction rate

- Their environmental conditions play a huge factor in worm reproduction.
- Size of container – must have enough room to expand
- Food supply to meet the growth rate



Escaping Worms

- If your worms are seeking a new home environment then something must be wrong with their current home.
- Check to see if the food is plentiful, bedding is moist and not too wet, the pH level is not too high/low and that the bin is well-ventilated.



Pests

- Flies may become a nuisance if there is something in the bin that they want to eat.
*Make sure to cover food!
- I have also found that various worm species has a lot to do with the Flies....





Harvesting



Summary

- Choose the right location
- Choose a bin that best suits your needs
- Purchase *Esenia Fetida* worms
- Don't over feed
- Not to wet
- Not to hot
- Freeze compost before using
- Now you have turned a waste into a valuable resource!



Win this Bin!



+ worms!

+ Worms Eat My Garbage book!

Please remember if you attend a minimum of two workshops in our Black Gold Composting Series, you are entered into a drawing to receive a compost system.

- * various types of systems

- * Aug 18 workshop a must be present to win workshop

This program and the compost bins have been funded by the DKMM SWD



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Thank you for helping us continue to obtain funding in the future!