

# Vermicomposting

## Vermicomposting – What is it?

Vermicomposting is the use of earthworms to convert organic household waste into humus. (*What is humus? According to wiki.answers.com, “it is decayed organic matter in the topsoil of mature soils. Humus helps the soil to hold water better, by providing nutrients, and by keeping the soil from getting packed down.”*) The household waste products generally used include coffee grounds, banana peels, vegetable peels, lettuce leaves and similar vegetable scraps. Any kitchen scraps or plant residue that **does not** contain fats, oils, bones or blood can be used. A few grass clippings that have not been recently treated with herbicides and leaves can also be added. The resultant humus is a great addition to your household or garden plants and flowers.

## How do I start?

First, you'll need a container to keep your worms in, one that is relatively shallow, less than 1 foot deep. A surface area of 5 square feet is usually large enough for the kitchen waste from two adults; add one square foot of surface area for each pound of waste over 5 pounds per week. The container should have drainage holes in the bottom and additional screened holes in the sides if it is deeper than 1 ft. A plastic container with handles is preferable but a wooden one is acceptable. **DO NOT** make it from pressure treated wood as the wood may contain materials toxic to the worms. A plastic recycling container works well. Add one or two pieces of 1 inch Styrofoam insulation cut to the size of the inside of your container to cover the contents. The worms like it dark and the Styrofoam keeps any fruit flies away. A sheet of black plastic will work also.

Next, you'll need to add some garden soil (a few handfuls) and dampened shredded newspaper (no colored paper) to about half the depth of the container. You will want your worm bin to remain wet but don't allow it to become overly wet to the point where there is standing water or you can squeeze water from the soil. You are now ready to add redworms and garbage.

After the initial worm bin setup above, adding a handful of garden soil, a few shredded newspapers, some grass clippings or leaves, and a handful of rock lime occasionally is beneficial to the worms. Or, if outside, animal manure may speed the composting process. **NEVER** add dog or cat feces to your worm bin.

## Why redworms and where do I get them?

Redworms are preferable because they tolerate temperatures extremes better than other worm species and they reproduce well in confinement. And, while they are small, less than 4 inches in length, they consume their weight in garbage daily. The red stripes alternated with buff colored stripes identify redworms. They are commonly found in compost heaps or in farm animal manure piles. If you do not have a friend that is vermicomposting or with a compost heap or know someone with farm animals, you can order redworms over the Internet. Any amount will do but adding 1-2 pounds to a recycling size container will give you a good start. You will shortly be able to start additional containers or help friends start containers from the worms in your container.

## **How often do I add garbage?**

That depends on how large or how many containers you maintain and how much kitchen waste you generate. I suggest you keep a 5 quart ice cream bucket or similar container under the kitchen sink to collect kitchen waste. When its full, add it to one side of the worm bin covering it lightly with material scraped from the opposite side until that side is full, then add to the other side. Discontinue adding to this container if it does not appear the worms are keeping up with your waste until they catch up and then continue adding waste to alternate sides.

## **Won't saving garbage cause a bad smell in my house?**

As long as you carefully follow the guidelines with your composting material, there will be no smell. Remember - **nothing** with fats (that includes meats, eggs and dairy products), oils, bones and blood. Eggshells are fine to toss out in your garden but they don't get composted in the worm bin. Your worm container may have a slight "earthy" smell, but nothing more than if you came in contact with damp dirt.

## **Where should I keep my worm bin(s)?**

Redworms work best in a temperature range of 59 - 77 degrees F. We keep our worm bins in the basement in the winter and in the garage in the summer. You can put them in your garden or another outside location in the summer as long as the container has good drainage and a cover to prevent predators from eating the worms. They can remain outside until temperatures approach freezing.

## **How do I sort my worms from my vermicompost?**

The easiest way to separate the worms from the vermiculture, or composted waste and worm casings, is to place some of the material from the bottom of your worm bin in a plastic bucket with a light bulb placed directly over it for about a half hour. The worms will form a ball in the center of the bottom and can be easily separated from the vermicompost. You can now use the worms to start a new worm bin, give them to a friend to start one, add them to your outside compost bin or directly into your garden and flower beds. The vermicompost can be used on your houseplants, flowers or vegetable gardens.

## **Where can I learn more about vermicomposting or buy redworms?**

One of the best sources is from a book called "Worms Eat My Garbage" by Mary Applehof. Ms. Applehof also has a video entitled "Wormania" that is directed toward school age kids and comes with a teaching guide. Information and redworms are available on the Internet by doing a search for vermicomposting or vermiculture.

**Authors note:** I have some in a bottomless aerated plastic barrel outside. I don't know if they migrate into the soil in winter or they die and the eggs start a new batch in the spring but they have been there for 17 years. I also have some in a plastic recycling container in our unheated garage. They survive all winter but their total consumption of garbage is less.

The two big things are: 1-Only use red worms, 2-no blood, meat, fats of any kind. If it smells other than like wet earth you have something wrong. And, the populations will go up and down over time.

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