

# Vermicomposting

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### What is it and why do it?

Vermicomposting is a process by which worms are used to convert household vegetable waste into nutrient-rich compost.

The most efficient worms to use are *Eisenia Foetida*, commonly known as red wiggler worms.

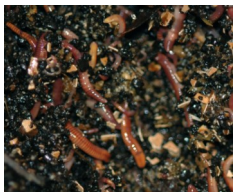


### Establishing a "Worm Farm"

Critical to the success of a worm farm are a few simple supplies: a plastic bin with a cover, shredded leaves or newspapers to provide bedding, and a supply of food to facilitate reproduction.

### Examples of proper worm diet:

Lettuce, tomato, cucumber, celery, carrots, radish, beets, greens, egg shells (crushed), coffee grounds, squash, pumpkins, pea pods, potato peels, peppers, eggplants, cabbage, apple peels and cores and avocado husks.



### Examples of foods to avoid giving to worms:

Bones, meat scraps, citrus, dairy, salty or salted food, plastics or non-biodegradable materials, kitty litter, animal waste, vinegar, or banana peels.

### Life Cycle and Physical Abilities of Worms:

Under ideal conditions a mature worm produces a cocoon every 7-10 days with newborn worms maturing and beginning to reproduce after 90 days. Worm babies are translucent and appear light gray in color. Worms have five hearts and have both genders of reproductive organs and also mate with others.



### Physical Set Up of Worm Farm

Several different types of bins may be used, and recycle bins available at City Hall are an ideal size and shape

Examples of types of bins:



Covers may consist of mesh screening or plastic garbage bags. Bins should have 1/8" holes drilled in the bottoms and sides so that excess liquid may drain and air be supplied to the bedding area. Care must be taken against having too much moisture in the bin as worms breathe air and will drown if left in standing liquid. One sign of excess liquid is the growth of mold (which in and of itself does not interfere with composting) or some of the worms crawling up the sides of the bin. If this situation occurs, leave the bin open, and add extra dry bedding (shredded newspapers or leaves) to absorb the excess liquid. A good location for a worm farm is in a basement with an average temperature of 50° F.

### Beginning the Colony

After obtaining the proper bin and covering the bottom holes with screening (such as window screening pieces), 8" to 10" of moistened peat moss, shredded newspaper, shredded leaves, and/or dry grass clippings should be placed in the bottom of the bin. On top of this add a handful of soil and half a cup of ground limestone. This should then be moistened by misting. Any water used should not be water-softened as this would add salt which will be damaging to the worms.

### Feeding the Colony

Worms can digest and convert to compost all non-oily, non-fatty vegetable scraps. It is useful to grind the scraps in a food processor before giving to the worms as it speeds the conversion process. Worms consume vegetable matter and their digestive processes turn it into compost whose nutrients are readily available to plants. Thus the process of "composting" is accelerated. Worm casting compost should be available for harvesting after approximately 3 to 6 months and regularly thereafter.

### Harvesting Compost

Once sufficient vegetable scraps have passed through the worms' digestive systems, after the colony has been in existence for 3 to 9 months, castings may be collected. In order to do this it is recommended to place a feeding in one end of the bin. Over the next day or so, all (or hopefully most) of the worms will be drawn to that end to begin feeding, leaving in the other end mostly just compost. This may be removed and the few remaining stray worms separated from it and returned to the bin. The worm castings may be used immediately in the garden around the root zones of plants (as a side dressing), used as part of a starter mix, or used in the bottoms of holes into which young transplants are placed. The worm castings can also be stored for later use in a cool dark place.



For more information or to have a bin set up in your residence please contact Carmen at:

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