

## The Art of Vermiculture

Vermiculture is the practice of raising redworms in boxes and feeding them kitchen or garden waste.

“My resident worms prefer to dine on aged manure with sawdust, along with a splash of coffee grounds and only an occasional rotten tomato!”

Even with an affinity for worms, those benign creatures of the earth, or at least the waste pile, much remains for me to discover. I am not presuming to be a worm expert. I have wondered, however, if an affinity for worms was enough to spur me to learn the basics of vermiculture. Was my feeling mighty enough to build a worm bed, feed the worms, and wet the bed down often enough to ensure their productivity and survival? Was my drive alone sufficient to ignore teasing from friends and my mothers grave concern?

Well, yes, I believe it was.

Why do I do it? The answer I typically give is not because I have a grand vision to make millions promoting a new local industry. (Advertisements exist that claim you can) My reasoning is far less glamorous.

I am a gardener.

My aspiration is merely to make my own potting soil, with the assistance of the worms, of course! This idea is no more complex than a cook who prefers to pick and gathers her own soup ingredients instead of pouring from a can.

Having mentioned food, worms eat their own weight each day, a pound of worms eat a pound of food everyday. Vermiculture is a method used for recycling food waste into a rich, dark soil conditioner called castings. Castings used for potting soil or added as an amendment to soil is a very good thing.

Starting with the rudiments, the composting worm is known by many names. The worms I use in vermiculture or vermicomposting are most frequently called redworms, or *Eisena fetida*, also known as red wigglers, manure worms, red hybrid or tiger worms.

“If you put composting worms into your garden,” says Matt Cordua from Rancho Verma Farms “they would die.” Rancho Verma Farms is located in North Madera county.

I purchased a pound and a half of mixed sized redworms for around \$20 (OK, Master Gardeners get a price break). The more imposing larger worm called Nightcrawlers are not recommended for composting bins. Nightcrawlers depend on an extensive tunneling system to survive and will likely die in the confines of a worm bin.

Recently, I heard about another type of worm making an appearance in the valley. It is called the Belgian or European worm. This worm is purported to have characteristics of both the red wiggler and the nightcrawler—perhaps it is a cross between the two. I have received one report that they are a bin-type worm. If any readers are knowledgeable about these worms, and would like to share information, contact me with email address or phone number listed below.

Suggested materials for a worm bin:

- Shredded newspapers or well rinsed peat moss
- Water
- 2 cups of a gritty substance such as coffee grounds, fine sand or pulverized egg shells.
- Well ventilated worm bins
- 1, 000 or more Redworms (*Eisenia fetida*)

A typical vermiculture set-up is a wood box that has a hinged lid. The size suggested by University of Ca. Cooperative Extension is 4 ft. long by 2 ft. wide with  $\frac{3}{4}$  inch holes drilled on all sides. Proper ventilation is essential.

The old barn wood I recycled to build a box breaths naturally, since the old slates don't fit tight. Surely, gardeners are not expected to be carpenters too!

The cracks in the wood of my worm box eliminate the need to drill holes. I have heard reports that plastic containers work as well but have not had the luxury of using the pre-made ones. A variety of bins in all shapes can be found on the internet.

The California Master Gardener Handbook recommends that the worms be kept moist in a cool, shady place. During cold weather place an extra six inches of mulch to protect the worms.

They can be fed daily or every few days with kitchen or garden waste. The more worms you have the more often they must be fed. Feeding them sufficiently will naturally increase their reproduction rate.

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