



**Worms –Nature’s Tillers**  
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Everyone knows soil makes or breaks a garden – but did you know that nature provides subterranean earth plows to continuously improve our soil? We’re talking about those small creatures - worms, that improve soil by tilling it, allowing air, water and nutrients to go deep. Worms also produce the best finished compost available: vermicompost. I love vermicompost; after adding some to the soil around a poorly-producing lemon tree, I got a bumper crop of lemons the next season!

Earthworms have been around for millions of years, surviving the Ice Age when most life forms perished. Worms live in moist, dark environments, are bisexual and cannot see or hear – although they are sensitive to light and vibration. Ideally, there should be about ten earthworms for every one cubic foot of soil. And let’s dispel one old rumor upfront: you can’t chop a worm in half, and get two living worms!

Many gardeners choose to produce their own vermicompost in home worm bins, with good reason. Worms work fast in a well-controlled worm bin environment, recycling kitchen scraps to compost. Worm bins are not difficult to build or maintain, and worms work for you year-round. Worms found in your garden, lawn and night crawlers are not suitable for worm bins.

The right worms for worm bins are red worms, *Eisenia fetida*, typically found in leaf and manure piles, or compost heaps. Red worms can also be purchased from vermicomposters, garden centers or online suppliers. Red worms are ideal because they are prolific and yet maintain an ideal worm bin population. They eat and expel their own weight every day, producing castings that are nutrient-rich compost, called “black gold.”

To get started, buy a worm bin or make one from shallow boxes or stackable plastic bins; see one example at

<http://www.klickitatcounty.org/solidwaste/ContentROne.asp?fContentIdSelected=991251662>.

Keep the bin where it won't freeze or over-heat. It's important to maintain a proper carbon-nitrogen mix inside the bin. About two-thirds of the bin should be carbon bedding material made of moistened, shredded newspaper. Nitrogen sources of bacteria and fungi provide food for worms; one-third of the bin should contain decomposing kitchen scraps such as vegetables, coffee grounds and teabags. Avoid meat, dairy products and oils. Refresh food and bedding as the worms consume it, keeping a six-inch layer in the bin.

Last – harvest your own “black gold” in two to three months. Scoop out the brown, crumbly compost and spread it around the base of indoor or outdoor plants ... watch the magic happen as plants absorb the nutrients and thrive!

Learn more about the value of worm composting this Saturday, June 1<sup>st</sup> at the Master Gardener class: “Making Worms Work for You.” Master Gardeners will demonstrate how to build worm bins, and discuss how to feed worms, harvest compost and use vermicompost in your garden. The free class will be held 9:00 a.m. to noon in the Veterans Memorial Building, 130 Placerville Drive in Placerville.

Master Gardeners are available to answer home gardening questions Tuesday through Friday, 9 a.m. to noon, by calling (530) 621-5512. Walk-ins are welcome at our office, located at 311 Fair Lane in Placerville. For more information about our public education classes and activities, go to our Master Gardener website at [http://ucanr.edu/sites/EDC\\_Master\\_Gardeners/](http://ucanr.edu/sites/EDC_Master_Gardeners/). Sign up to receive our online notices and e-newsletter at <http://ucanr.edu/mgenews/>. You can also find us on Facebook.