## **Red Wigglers - Basic Worm Care**

How fast do my worms breed? The breeding cycle is approximately 27 days from mating to the hatching of cocoons filled with worm eggs. Red Wiggler cocoons typically hold about 3 eggs each. Red Wigglers can double in population every 60-90 days.

How long do my worms live? It's common for Red Wigglers to live 2-3 years, though 4-5 years is not unheard of. You will rarely see dead worms as they are made up mostly of water and disintegrate quickly.

**How much do my worms eat?** Red Wigglers are voracious and eat more than their body weight each week. 1,000 adult worms (~1 lb.) eat roughly 1-2 lbs. of organic waste per week.

What can kill my worms? Worms are sensitive to major fluctuations in pH, lack of oxygen, lack of moisture, and certain toxic chemicals such as acid or ammonia. Worms are resistant to many chemicals that are toxic to humans. The vermiculture process will even break down some toxic chemicals into benign components.

**Worms and Disease:** Worms are subject to very few diseases. The bacteria fostered in their gut and excreted with their castings are benevolent and produced in such overwhelming numbers that disease-producing bacteria find life very difficult in an earthworm environment. Accordingly, worm beds and their castings are essentially free of harmful pathogens and viruses. This makes worms ideal for the stabilization of all forms of putrescible wastes.

**Food:** Most any vegetables (they love corn cobs!), melon rinds, avocado, banana peels, lettuce and cabbage, celery ends, old bread, pasta, or grains, coffee grounds, tea bags, egg shells, or citrus peels, are all suitable worm food. <u>DO NOT</u> feed meat, dairy, papaya, or pineapple (which is highly acidic). Citrus or onions should be fed in moderation. Non-biodegradable materials do not belong in a worm bin. Cat litter or dog feces should not be used, either. <u>If you want a clean and easy all-in-one food that will help your worms grow and multiply and control acidity in your bin, use our special worm chow.</u>

**Environment:** Red worms must live in a moist environment because they breathe through their skin. 50-70% moisture is optimal. If you squeeze the worm bedding in your hand and water streams out, it is too wet. It should feel like a wrung-out sponge and shed no more than a few drops of water when squeezed, but it must be moist.

**Aeration:** Red worms need oxygen to live. They produce carbon dioxide. Good air circulation is a must in your worm bin. If you use a lid, make sure that it has plenty of holes or a screened vent. If your bin smells stinky, fluff (mix) the bedding bottom to top.

**Temperature:** Red worms tolerate a wide range of temperatures; however, the ideal bedding (not air) temperature is between 55-77 degrees F. Bedding with a sustained temperature above 84 degrees F is harmful, sometimes fatal to red worms. The temperature of the bedding inside the bin should be measured because the temperature in the moist bedding often differs from the temperature of the outside air. If your bin is kept outdoors, make sure it is shaded from hot sun.

**Bedding:** 1. Shredded corrugated cardboard is our #1 choice for bedding because it holds moisture, resists compaction, and worms love to eat it. 2. Old decaying leaves are also a great material for bedding, but mix them with cardboard. Use only dry brown leaves, as green leaves can make your bin heat up as they compost. 3. Long strips of shredded newsprint or paper can also be used. They are easily moistened, but the strips compact and require frequent re-moistening. The ink used for printing newspapers is not toxic to red worms as it is soy-based. 4. Some farmers use animal manure as bedding. Don't use manure if your bin will be located in or near your living area as animal manures contain many kinds of insects. If your bin will be outside or in a garage, manure is great. Worms really like manure. Remember - no pet, people, or pig manure! Only use manure from plant-eating animals. 5. Peat moss can be used if rinsed and mixed with other bedding materials. It holds moisture well; however, it provides no nutrients for the worms, and can be expensive. It is also not a renewable resource. 6. Coconut coir is becoming more and more popular as an effective and economical bedding. It is pH neutral, has excellent water retention, and does not promote a hospitable environment for mold. NOTE: A handful of rich black garden soil or old bedding from another worm bin provides the grit and beneficial microbes worms need for breaking down food particles within their gizzards. You can substitute ground egg shell, pulverized dolomite limestone, ground oyster shell, or even sand. Our worm chow contains both grit and a pH buffer. DO NOT use potting soil or dirt as your main bedding. Your composting worms cannot live well in dirt. TIP: Put a piece of moist cardboard or burlap or a sheet of plastic or bubble wrap on top of your bedding to keep it moist.

## Will and Alyssa's Top Tips For New Worm Farmers

- 1. **Don't overfeed your worms!** Start with just a little food at a time. It's hard for your worms to starve as they can even eat their bedding. Overfeeding is the #1 cause of worm death. In an emergency, worms can survive without added food for weeks or more if moisture and temperature stay within their comfort range.
- 2. **Don't overwater your worms!** They need moist bedding like a wrung-out sponge, but your bin can become anaerobic (without oxygen) and smell bad if it is too wet.
- 3. **Resist the urge to constantly check your worms!** They will happily multiply and thrive if left alone for 3-7 days at a time. Mating worms look like a tied-up knot.