

## Congratulations! It's a worm!

So you've recently adopted worms and need some guidance on not killing them. Or better yet, keeping them so fed and so happy they produce abundant castings for your garden, diversify the biology in your soil, and turn your "garbage" into food! An ideal worm habitat should be relatively hands-off and low maintenance. This is not rocket science, anyone can do it!

### Daily-ish

- The best way to ensure the comfort of your worms is to make sure there is something always growing in your garden. Plants provide shade, protection, and (once dead) food for the worms. They also serve as a visual reminder of the moisture level in your garden. You want to have something growing almost every single day (especially in the summer) even if just as a cover crop.

### Weekly-ish

- Feed your worms ½ cup of greens<sup>1</sup> and top with ½ cup of browns<sup>2</sup> every week. How quickly the worms eat will vary depending on what you feed, the size of the food pieces, and how far along in the decomposition process it was before entering the bin. **To avoid overfeeding, the general rule of thumb is: only add more food if you can't easily recognize the food you last fed them.** It might be closer to 2 weeks between feedings for the first few weeks, and that is okay. As time goes on, the population will grow, and they'll eat faster. To give you a visual, they can eat ½ their body weight in food every day. 1,000 worms (with no bedding, just worms) weigh roughly 1 pound.

### Every 3 Months-ish

- Harvest your bin and feed your plants! After 3 months of feeding, your bin should have accumulated a significant amount of castings and will be ready to harvest!
- Once you notice it's getting pretty full of castings, empty out the contents of the bin and distribute your castings across your garden. The worms should already be doing a pretty good job of distributing castings in the bed that they're in, so if you have other plants or garden beds share the wealth! Once emptied, re-insert the bin in your garden (in the same spot or a new one) and continue to compost as usual.
- Do this every 3 months or as needed.

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<sup>1</sup> **Greens-** Materials that are rich in *nitrogen* (Examples: fruits, vegetables, green leaves, green plant clippings, etc.)

<sup>2</sup> **Browns-** Materials that are rich in *carbon*. (Examples: dry crunchy leaves, twigs, mulch, napkins, shredded cardboard or paper, straw, sawdust, junk mail, paper plates, coffee filters, etc.)

## General Tips!

### Watering Tips

- Better to be a little too wet than a little too dry.
- Irrigation systems with adjustable timers are the best way to ensure the soil stays consistently moist. Hand watering is also a viable option but tends to be less consistent.

### Feeding Tips

- As you're getting started, stick to fruits and veggies. They're easy for the worms to break down and you have plenty of them!
- Worms have crops similar to chickens. Meaning, they need grit in their food to aid their digestion. The easiest way to ensure they have enough grit is to add a light sprinkle of ground eggshells or coffee grounds between the greens and browns each time you feed.
- Do not add any meat, dairy, or oils. While worms will eat meat and dairy products, it is best not to feed these materials or oily foods to worms, due to potential odor and pest problems.
- Avoid feeding spicy or acidic foods. These tend to overpower small habitats and make an uncomfortable space for the worms.
- *What do worms eat quickly:* blended or chopped up food waste, food that has already begun the decomposition process, food with grit (like pulverized eggshells) to aid in the worm's digestion, and food buried just below soil level.
- *What do worms eat slowly:* hard foods like avocado pits that take a long time to begin to break down, fibrous foods like banana peels and watermelon rinds take a long time to break down, food piled above soil level, food during the winter and summer seasons in which worms naturally slow down and tend to eat less.

### How to Apply Castings

- Once you've harvested your castings the best way to use them is to sprinkle and/or massage them into the soil of any plant and then water them in. I have yet to meet a plant that did not appreciate the added boost of biology. If you have a layer of mulch above your soil pull that aside before adding castings.

### Troubleshooting

- If the bin starts to smell, you have probably overwatered or overfed.
  - If you've overwatered→try gently mixing in dry browns.
  - If you've overfed→ try taking half of the food out and cover with dry browns.
- Mites naturally coexist with worms, but in large populations can be harmful to them.
  - If you begin to see high numbers in their population, place a slice of bread in the bin, and most of the mites should migrate on to it. Once they do, take the bread out of the bin and put it in direct sunlight.
- If you have any issues with fungus gnats or fruit flies, it is most likely due to too much moisture or too much food. The fix is adding an inch or so layer of dry browns over the top of the bin and taking out excess food until flies subside.
- The solution to most problems is adding more browns! If that doesn't do it give us a call!