### WORM NERD'S

# **WORM COMPOSTING BIN**

STEP-BY-STEP GUIDE TO SET UP AND MAINTAIN YOUR BIN

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MYA 4-TRAY WORM COMPOSTING BIN



WORM NERD

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# **GETTING STARTED**

#### **Step 1: Prepare Materials**

Place a coconut fiber block in a container with about 3 quarts of non-chlorinated, lukewarm water. (Lukewarm water will work faster and feel better when handling the fiber.) Never use chlorinated water as it will kill the living microbes.

#### Step 2: Prepare Tray

Place one of the trays on top of the base tray. Set the other two trays aside for now. Lay 2-4 sheets of newspaper in the tray to cover the holes (the paper will overlap up onto the sides, this is fine). Use the newspaper only for this tray, never in any of the following trays.

Scoop the coconut fiber out of the container in handfuls, squeezing out excess moisture so that the fiber is about as moist as a wrung-out sponge. The bedding should be damp, not dripping wet. Cover the coconut fiber with 2-4 inches of shredded and damp (not dripping) newspaper. Add 100-250 composting worms to the tray, plus the bedding they arrive in. Put the lid on the tray and let them get comfortable overnight before adding any additional food.

#### **Step 3: Feed the Worms**

The amount of food to put in the bin depends on the number of worms you have. Two hundred fifty worms need slightly less than 1 pound of fruit and vegetable scraps and half a tablespoon of Worm Nerd's Premium Worm Grit per week. Sprinkle the grit over the food scraps and cover with shredded, moistened paper. Return the lid on the tray.

**NOTE:** It is especially important to not over feed your worms. Doing so may cause them to get ill or even die. If there is food left over from earlier feeding, do not add more. The worms will also eat the shredded paper, coconut coir, and cardboard.

**TIP:** Keep a 3-pronged hand-held garden cultivator on top of the bin and use it to lift the layer of shredded newspaper to check on your worms (it also helps to keep your hands clean!).

### Step 4: Wait Patiently

The bedding/shredded newspaper/food scrap layers may reach the top of this first tray right from the start, but do not be tempted to put on the next tray for a couple of months. The bedding in the first tray will settle and become more compacted over time. Worms will reduce the volume of all this organic material over time by 2/3 to 3/4 of its original volume. Use the 3-pronged handheld garden cultivator periodically to gently aerate the tray.

#### Step 5: Maintain

As the worms increase in number, you should able to gradually increase the amount of food given on a weekly basis. If there is no food left over from the last week's feeding, it is time to increase the amount you feed, as well as the grit sprinkled on top of the food. Do not overfeed! Be sure to always cover the exposed food with 2-4 inches of damp, shredded newspaper. This layer of newspaper is important for breeding, pest control, carbon to nitrogen (C:N) ratio, and castings quality. It will eventually be consumed by the worms. Simply replace the shredded paper as needed.

Clean out the base tray every other month or so and place the contents back into the top tray. Worms will often go down to the base tray and too much liquid could cause them to drown. Any castings that accumulate here will compact and hinder air flow.

# DIGGING DEEPER

## When to add the next tray

When the tray is converted to a mixture of vermicompost and castings and reaches the top of the tray, it is time to add a new tray. Scrape an inch of castings from the original feeding tray and place into the new tray. (Do not place flat sheets of newspaper over the holes in the new tray or any other tray. The flat sheets of newspaper are only for the starting tray.) Add food scraps over the castings layer and sprinkle with grit. Cover with 2-4 inches of dampened, shredded newspaper. The worms will go up to the new tray for food. Follow the above steps for each additional tray.

#### Harvesting the goods

When the bottom tray is full, remove the contents and clean the empty tray. When the bin is ready, this tray will be added back to the top of the bin.

To utilize the harvested castings as a soil amendment, mix the contents with any potting mix, soil, or compost blend. The castings should make up 20% of the mixture. They can also be used to top dress plants and trees.

#### Managing the elements

The ideal worm environment requires managing the oxygen, moisture, food, light, pH level, and temperature of the worm bin. If conditions are not satisfactory your worms will pack up and move elsewhere. Wind, rain, temperature changes, lack of food, and lack of (or too much) moisture can all result in your worms migrating to greener pastures. Overhead lighting can help deter migration, but keeping the worms happy and healthy is the best way to keep them eating and reproducing.

**OXYGEN.** Worms need oxygen to live! Gently aerate the tray periodically to prevent the contents from becoming too compact.

**MOISTURE.** The compost should always be moist but never wet. Due to the design of the worm bin, condensation produced from the decomposition of the food generally supplies enough moisture for your bin. However, if the shredded newspaper becomes dry, mist it with non-chlorinated water to moisten. Do not pour water over the bedding.

If the bin smells sour, it is too wet. Add more newspaper scraps so soak up the excess moisture.

Use a moisture meter to accurately measure the amount of moisture in the bin.

**FOOD.** Feed your worms chopped fruits and vegetables that have begun to decompose. Do not feed your worms meat, dairy, bones, grease, or feces.

**LIGHT.** Worms are light sensitive and prefer a dark environment. Light can have a negative impact on reproduction and production of castings.

**pH LEVEL.** While the worms themselves are free of disease, too much acid accumulation in the bin causes protein poisoning, also called "sour crop". With protein poisoning, the worms will look like a string of pearls and explode. This is caused by a combination of overfeeding and providing foods with too much protein. Acidic foods ingested by the worms ferment, creating a buildup of gas and causing the worms to explode.

Use a pH meter to accurately measure the acidity of the bin. The pH level should be slightly acidic and maintained between 6.0 - 7.0.

TEMPERATURE. The ideal temperature range for the bin is 55° - 79° F.

**ANTS.** To protect your bin from ants, mix baby powder and corn starch (without talc) and lightly sprinkle it in the trays. If being kept outside, put the legs of the bin in cups filled with water and baby oil to keep the ants from ever getting into beds.

**REPRODUCTION.** If conditions are satisfactory, the worm population will double in 3 - 4 1/2 months. Adult worms produce 3 cocoons a week and each cocoon will hold at least 3 baby worms (sometimes 10 or more). Every 3 months the worms should be harvested or separated from the castings. If the worms become overcrowded they will slow down their reproduction.



WE HOPE YOU FOUND THIS GUIDE USEFUL BUT IF YOU STILL HAVE QUESTIONS, JUST CONTACT US AND WE'LL BE HAPPY TO HELP

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