

# **CANYONLAND WORMS**

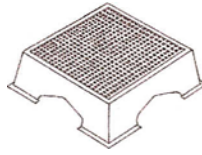
**BRINGING NATURE TO YOU FOR A HEALTHY ENVIRONMENT**

## **Worm Condo Instruction Manual**

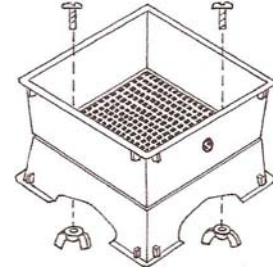
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## Components

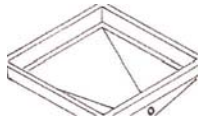
- a. PEDESTAL BASE (legs piece)



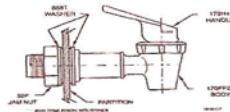
- b. BASE TRAY (tray with one hole in one side wall)



- c. LIQUID COLLECTION TRAY (one hole) and ROOF (these look similar but have different functions)



- d. SPOUT/SPIGOT package



- e. BOLTS packet

- f. Brick of COCONUT COIR



- g. WORM TRAYS (three)

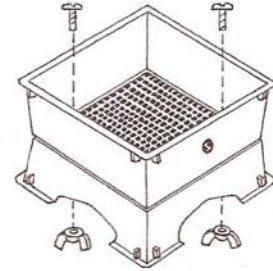


- h. INSTRUCTION MANUAL

## Building Your Worm Condo

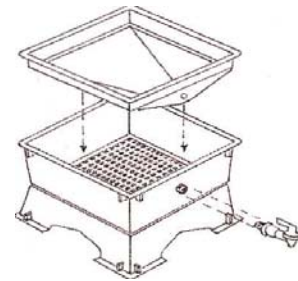
1. Put PEDESTAL BASE down first (un-cut side is toward the back).
2. Align BASE TRAY on top of PEDESTAL BASE. The hole is for the SPOUT/SPIGOT and is facing the front of the Worm Factory.

3. Insert BOLTS down from the top through the BASE TRAY into PEDESTAL BASE through any outer holes near the corners in the mesh bottom.



4. Attach wing nuts onto bottom of BOLTS under the PEDESTAL BASE and tighten down.

5. Lay LIQUID COLLECTION TRAY into BASE TRAY, aligning the SPOUT/SPIGOT holes.



6. Insert a white rubber washer onto the SPOUT/SPIGOT, and then insert the SPOUT/SPIGOT into the hole of the BASE TRAY. Once in, insert the other washer on the SPOUT/SPIGOT on the inside of the LIQUID COLLECTION TRAY.
7. Screw plastic nut onto back of SPOUT/SPIGOT inside the LIQUID COLLECTION TRAY (keep it inserted into the BASE TRAY). You may need to turn the SPOUT/SPIGOT rather than the plastic nut, or both.

8. Stack WORM TRAYS on top of the LIQUID COLLECTION TRAY as needed for worm growing.

9. Place the ROOF on the top WORM TRAY so that it is facing away from any wind. The wind will flow over the top of the ROOF, increasing the natural draft up through the ventilation holes of the ROOF.



## Getting Started

- A. Presoak the COCONUT COIR and/or shredded newspaper or computer paper. After soaking, scoop the coconut fiber and/or shredded paper out of the bucket in handfuls, squeezing out excess moisture so that the COIR fiber and paper are about as **MOIST AS A WRUNG-OUT SPONGE. YOU WANT THE BEDDING TO BE DAMP, NOT DRIPPING WET.**
- B. Mix a few handfuls of rich, dark soil and/or compost with the COIR to seed the bedding with the microorganisms that break down the organic material and add grit.
- C. Remember all the materials are a food source for the worms, so allow time for the worms to consume and process the initial bedding as well as the new added food source. You can jump-start your factory by adding a larger quantity of worms.

**SPECIAL NOTE:** Remember that you are creating a soil amendment (worm compost) that will become the nutrient for your own plants and garden. Consider what you put into the Worm Condo, because it may end up on your dinner table in the form of vegetables and fruits in your garden. Even though worms can totally transmute chemicals into safe, useable garden soil amendments, chemicals take longer to break down.

- D. When your worms arrive, place them onto the surface of the bedding. You can add shredded, moist paper/bedding. The worms will quickly disappear under the surface of the bedding.

**SPECIAL NOTE:** Keeping a light on 24/7 for a few days will help the worms stay and settle in; especially if you are growing European Nightcrawlers (they are called nightcrawlers for a reason!) There will always be a few worms and castings sifting into the LIQUID COLLECTION TRAY. We recommend rinsing out the LIQUID COLLECTION TRAY regularly. Use the compost tea for your plants.

- E. The bedding may reach over the top of the WORM TRAY. The material in the trays will naturally settle and condense as the worms process it. You can wait to add the next tray, depending on the season and how many worms you have added to your Worm Condo.
- F. When you are ready to add another tray, the bedding in the lower tray must come in contact with the bottom of the tray you add to allow the worms to migrate up to the food and bedding. Keep the ROOF on at all times as worms multiply more quickly in a dry environment.

**SPECIAL NOTE:** Worms re-eat their bedding and previous food sources. Worms consume their weight in food each day; however it is difficult to say that the worms will eat their weight each day of freshly added food. There isn't a definite point at which you can say that the tray is complete. The longer you wait (the more times the worms re-eat the same food), the better quality the worm castings will become because of this processing and re-processing of their bedding and food source.

- G. When you see the worms actively involved with the waste you previously fed the worms with, you may then feed them more. **DO NOT OVERFEED THEM!** When the tray is fully consumed, the top of the tray may look sifted smooth and leveled by the worms. The longer you wait before feeding the next tray, the better the quality of your worm castings. Patience is the key. Worms are major earth-movers if you give them time to do it.
- H. Be sure to cover the exposed food in the uppermost tray with some material such as existing bedding, new COCONUT COIR or damp, shredded paper. This layer of material is very important for breeding, pest control, Carbon/Nitrogen ration (C:N) and castings quality. The shredded paper will eventually be consumed. Simply replace this top dressing material as needed. If leaving worms unattended, put four inches of shredded paper in the bin (paper doesn't heat up like food does).

**SPECIAL NOTE:** During extreme temperatures, keep the Worm Condo as dry as possible. The dry bedding will act as insulation to protect the worms.

- I. You may leave the SPOUT/SPIGOT open continuously in the LIQUID COLLECTION TRAY and keep a small bucket under it. By keeping the SPOUT/SPIGOT open at all times, you allow more moisture to drain from and through the trays, while promoting oxygen flow through the system. This leachate (compost tea) can be used to fertilize your garden or plants, as long as you don't leave it in the bucket too long. If it has an offensive odor, don't use it until you have aerated it with an aquarium air pump or poured it from one container to another several times to promote aerobic bacteria growth.

### **WHEN TO ADD THE NEXT TRAY**

When the lower tray is converted to a mixture of vermicompost and castings, and becomes full and condensed, it is time to add the next tray. Scrape an inch of compost/bedding/castings from the lower tray and place it into the next tray, making sure that the top of the bedding in the lower tray comes in complete contact with the bottom of the tray you are adding. Add food to the top tray and cover with three-to-four inches of dampened, shredded paper.

### **WHEN TO HARVEST**

When the third tray is full, remove and empty the bottom tray using the contents as 20% of any potting mix, soil or compost blend. The now-empty tray will become a new upper tray.

### **MAINTENANCE**

Worms will migrate down if the system gets too wet or hot. The worms know where to go to find the safest environment. We suggest cleaning out the collector tray every month or so. Place the contents (if any) back into the top tray, or spray it off with a hose over a flower bed or garden so as not to waste any vermicompost or tea.

**SPECIAL NOTE:** Do not pour water over your bedding. Research shows that dryer bedding is healthier for the worms. The worms will reproduce faster in a dry environment. Condensation produced from decomposition provides enough moisture for the Worm Condo. If you want more compost tea, simply steep a cup of well-processed castings in a gallon of water overnight. Use this tea within 24 hours to water plants or your garden.

## **FEEDING THE WORMS**

### **ACCEPTABLE FOOD FOR WORMS**

fruit rinds  
cores and peels  
grains  
vegetables  
egg shells  
coffee grounds/filters  
tea leaves/bags  
sawdust  
leaves  
paper  
cardboard  
bread

### **UNACCEPTABLE FOOD FOR WORMS**

cooking oils  
pet feces  
meat  
cheese  
butter  
animal products  
fish

Materials will be eaten faster if you chop food wastes first. You can use a plastic container with a tight lid kept in your refrigerator to accumulate scraps for your worms. This refrigerated container keeps the scraps from drying out, smelling up your kitchen and rotting before you use them for worm food.

### **Worms should be fed about once per week.**

- At feeding time, check that the WORM TRAY is not accumulating liquids from foods. If it is, use dry COCONUT COIR or paper bedding to soak up the liquid.
- Make sure the bedding is still damp. If it is not, use a spray bottle filled with water to thoroughly dampen the bedding. It should be damp, but not dripping wet.
- Put a few tablespoons of whatever you are feeding your worms under the top layer of bedding. You may need more than a few tablespoons depending on the size of your WORM TRAYS and how many worms you have.
- Worms are expected to eat one pound of food per week for every square foot of surface area in their tray. The worms will show you when they are ready for more food. The best way to judge the amount of food to add is to see how much un-eaten food is still left at the end of each week. Add bedding to cover the food to keep the insects away, and replace the ROOF
- Coffee grounds and citrus fruits are acidic. To sweeten this food source, add some garden lime to the WORM TRAY. You will know the food source is too acidic if you see lots of small, white pot worms.