



VERMICULTURE AT HOME GUIDE

Worms will eat much of your kitchen compost and junk mail waste producing fertilizer 11X more nutritious than regular compost alone.

IF YOU HAVE GENERAL QUESTIONS, OR WOULD LIKE TO BOOK AN AT-HOME PRESENTATION, PLEASE EMAIL WASTEWISE@CCONSERV.ORG OR CALL OUR OFFICE AT 250.398.7929. IF YOUR WORMS NEED HELP, PLEASE CALL OR TEXT MARY FORBES DIRECTLY AT 250.855.8443

PURCHASING A WORM BIN

Worm bins and stock are ordered annually in April and brought to Williams Lake. Please place your order and prepay before April 1st to ensure you get a bin and worm stock.

1 Worm Bin: \$100 with on-call worm support from Mary Forbes all year round!
(Regular Retail Price \$110 + tax + shipping)

1000 Worms (a pound): \$60 (half pound or other quantities available)

Websites

www.allthingsorganic.com/

www.redwormcomposting.com

www.wormcomposting.ca/

www.davidsuzuki.org/what-you-can-do/food-and-our-planet/start-composting-your-food-scrap

<http://en.wikipedia.org/wiki/Vermicompost>

Books

Worms Eat My Garbage: How to Set Up and Maintain a Worm Composting System, Any Edition - Mary Appelhof, Mary Frances Fenton: 9780977804511

KEEP YOUR WORMS HEALTHY

There are 5 tips to feeding your worms. Imagine that your worms have all of these human dietary limitations;

1. **DIABETIC: no added sugar content foods** eg. Candy or canned fruit in syrup.
2. **LACTOSE INTOLRENT: no dairy** eg. Yogurt, cheese or mayonnaise
3. **VEGETARIAN: no meat** eg. Sliced sandwich meat, bones, chicken soup
4. **CHOLESTEROL: no oil or salt** eg. Potato chips, french fries, pickles
5. **CHAPPED LIPS: No acidic foods** eg. Tomatoes, orange peels, kiwi

AND NEVER FEED YOUR WORMS BANANA PEELS! They are the #1 source of fruit flies! TIP: IF YOU FREEZE OR MICROWAVE YOUR WORM FOOD, AND TO RETURN IT TO ROOM TEMP BEFORE FEEDING TO WORMS IT KILLS FRUIT FLY EGGS AND INCREASES DECOMPOSITION.

HOW MUCH DO I FEED THE WORMS?

A pound of worms (1000 worms) can eat a pound (450grams) of food every two days under ideal conditions (1 handful of food put through blender added to two handfuls of paper). ALWAYS FEED WORMS ONLY IN THE TOP TRAY IN THE CENTER (under the lid's handle). When you open the bin's lid the worms should be actively feeding on the top and respond promptly to light by retreating. If the worms are not present on top, wait a day or two to feed. When your working tray is almost full (1 inch to spare), it's time to add a new tray on top (2 can be found under legs of worm bin). Worms will migrate up to food through mesh bottom.

The truth is, your worms are secondary composters and are actually eating the mould and bacteria that do the initial composting. To ensure there is a good environment for your worms' food to make more food be sure to add the correct ratios of nitrogen (food) and carbon (paper). SEE NEXT PARAGRAPH.

FOR EVERY ONE HANDFUL OF FOOD ADD TWO HANDFULS OF PAPER

Paper can be shredded from the junk mail office, newspapers, shredded paper towel or paper napkins from your kitchen, muffin wrappers or even used tissues! No glossy magazines, envelope windows or staples please!

Worms have small mouths; if your compost is cut up, or even better put through a blender, it increases the surface area for primary composters and your bin will work more efficiently.

AS WET AS THE INSIDE OF YOUR MOUTH

Worms breathe through their skin. If the bin is too wet they will drown, if too dry they suffocate. To adjust the moisture in your bin, add paper if too wet, add more food if too dry. Misting water with a spray bottle can be a bandaid solution over the short term.

SAVE THE WORMS: Want to save those drying out sidewalk worms after a rain storm? Bring a dish of water, dunk each worm for a minute and place in the grass. Sidewalk worms are **EARTHWORMS** and would not survive in your compost bin, so don't add them to your worm bin. Red Wigglers are **COMPOSTING WORMS** and do not survive in low nitrogen environments (your garden).

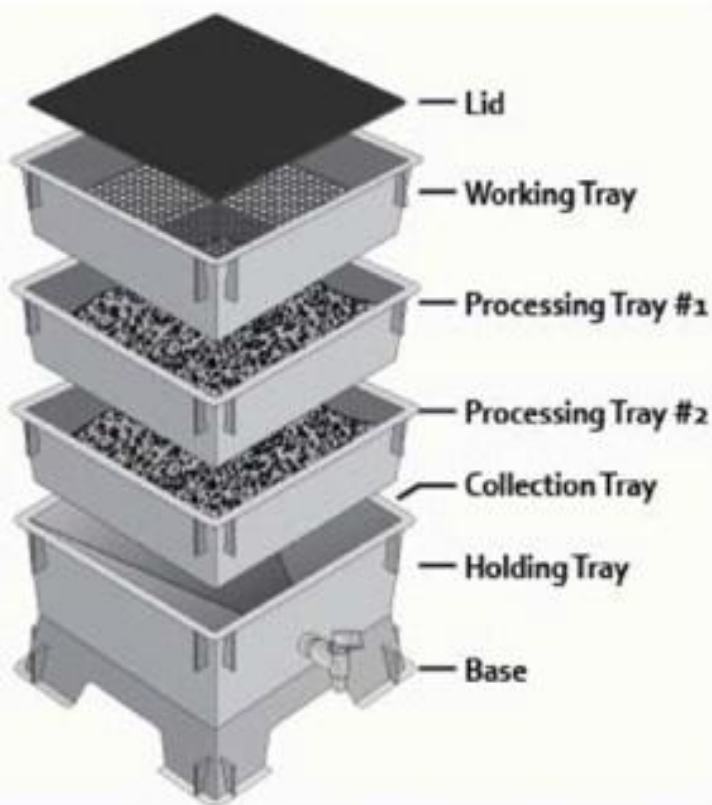
WORMS ARE ALLERGIC TO LIGHT

Worms are very photosensitive and will "run" from all light sources. This is what sends them back underground when the sun comes out after a rain storm and saves them from suffocation. Keep the lid on the bin.

GOING ON VACATION

Don't worry about your worms if you got away for a couple weeks. Place worms up on a table so mice or household pets cannot access it (mice can eat an entire worm bin's stock in one night). Add a little extra food and paper and off you go!

Long Vacations are a different story. Do not leave your worm bin unattended over two weeks. Do not place the bin in direct sun or leave the bin in a location where mice can access it. Garages and Basements work really well. If you cannot find someone to care for your worms, contact Waste Wise at wastewise@cconserv.org or call or text Mary at 250.855.8443 for extended leave babysitting service.



COLLECTING THE WORM CASTINGS (worm poop)

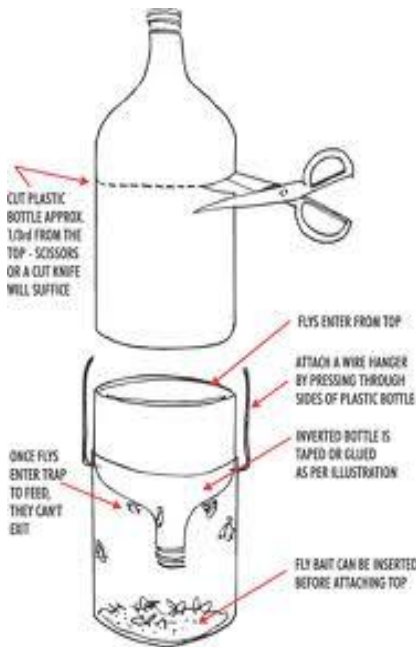
When all three of your worm processing trays are full, move the bottom tray directly above the working tray. Stir vigorously (but gently) and expose to light or a window with the lid off to make the worms migrate down to working tray. Stir every couple hours until no worms are left in processing tray. Manually collect eggs (if any).

COLLECTING EGGS:
 collect the
 remaining eggs
 (cocoon) from the
 finished processing
 tray after exposure.



TROUBLESHOOTING

- **FRUIT FLIES**



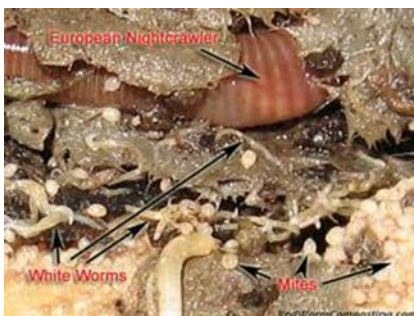
Fruit flies are the bane of the worm composters' existence. Prevention is the best medicine (no bananas & freeze or nuke your food) but once you have them your wonderful worm bin with quickly become unwelcome by your housemates.

Make a fruit fly trap with cider vinegar and a drop of dish soap to remove surface tension can help.

Worm "hair nets" can easily be made with sheer curtain fabric from the thrift store and big piece of elastic to hold it in place around the top of the working tray.

CALL FOR HELP IF YOU ARE OVERWHELMED! 250.855.8443

DO NOT SEAL OFF THE BIN WITH PLASTIC WRAP-THIS WILL KILL YOUR WORMS AND CAUSE A TERRIFYING SMELL!



- **WHAT IS THAT?!?**

Mites:

Tiny crawling white spots, a few are normal. Lots indicate it is too wet and they make a mess. Remove by placing the rind of a melon squishy side down. Mites will collect on rind, remove rind to outdoor compost pile.

Potworms:

Tiny white worms, look like baby composting worms but pure white. (Baby red wigglers are pink.) A few are normal. Lots are a sign your bin is too acidic and too wet. Add more paper and crushed up egg shells to raise the pH.

BAD SMELLS

Your worm bin should smell like moist earth.

- If you have a rotting meat smell, worms are dying and intervention is required-usually from overfeeding or too wet. Drain the collection tray and add paper.
- If you have a rotting veggie smell-you are overfeeding and worms cannot keep up.
- If you have a mold smell, bin is too wet and being over fed, add more paper.

TOO MANY WORMS

Great! Call Mary for pick up, extra worms are used in our in school worm composting programs, we use funds we save from free locally grown worms to purchase more classroom worm bins instead of replacement worm stock.