



worm hotels

A 'HOW TO' GUIDE

Worm Hotels: How to make and install

Congratulations! You're taking the first step to divert food waste from the general waste stream to a sustainable organic system, reduce greenhouse gas emissions, and provide your garden with worm castings and beneficial nutrients as the worms eat the food, check in and out of the Hotel and nourish the surrounding garden.

I saw the concept of an in-ground worm hotel in a gardening magazine in 2007 but had never had the opportunity to install one.

In August 2017 a colleague suggested to submit an application for a CSU sustainability grant for a pilot program and helped me with the process. I found like-minded staff who agreed to contribute to the project by being 'caddy monitors'. While we were waiting for the grant application to be considered, I set up a worm hotel at home to work out the 'do's and don'ts for the best method and determine any potential problems. I modified the original concept by using a wheelie bin instead of a garbage bin.

Our proposal was assessed by the selection panel after a brief presentation and the application was approved in September, with two worm hotels set up in October. The staff from CSU Green have been amazingly encouraging and supportive through the entire process!

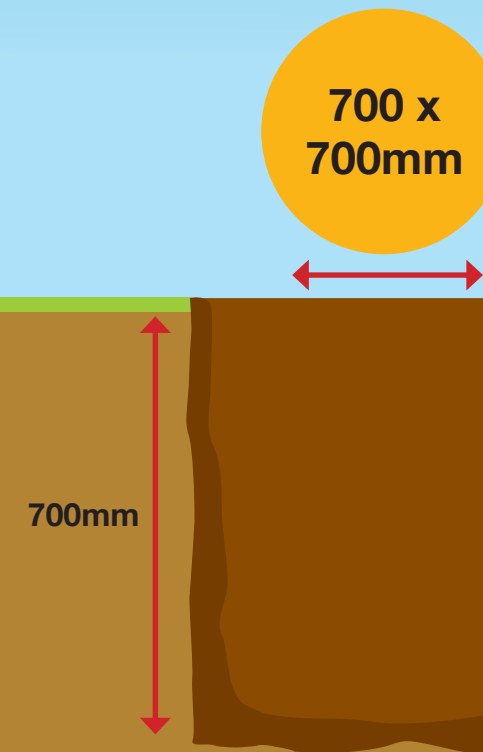
Since their installation the two worm hotels have composted organic waste from the NaLSH and SAWS office block and have never been more than two thirds full.

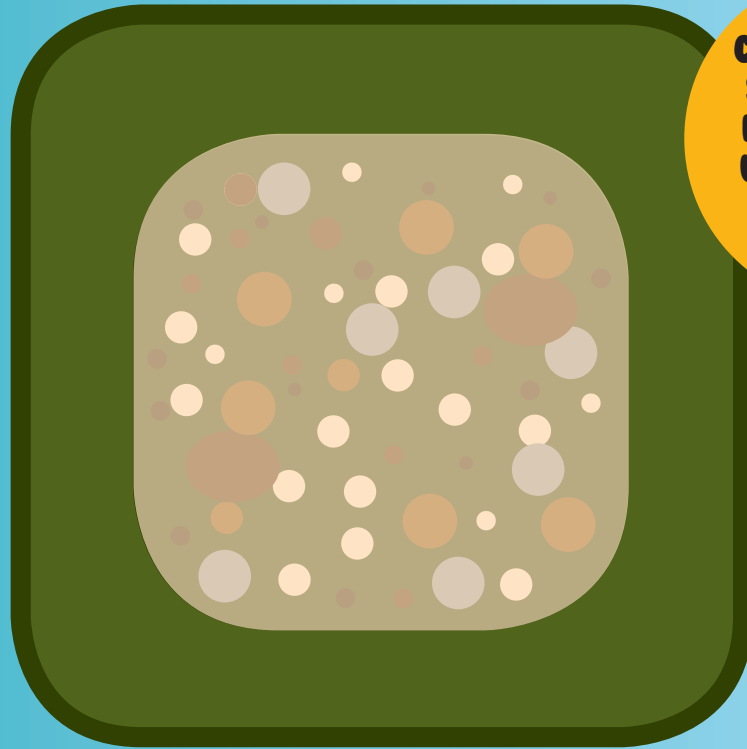
Therese Moon - CSU Technical Officer
Recipient of a CSU Green grant.

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STEP 1.

Dig a hole, at least 700mm deep and 700x700 square in a shaded or semi shaded position. (Larger for a 240Ltr wheelie bin). Ideally soil should be friable and well drained. The depth of the hole is not critical if the worm hotel is in the shade.



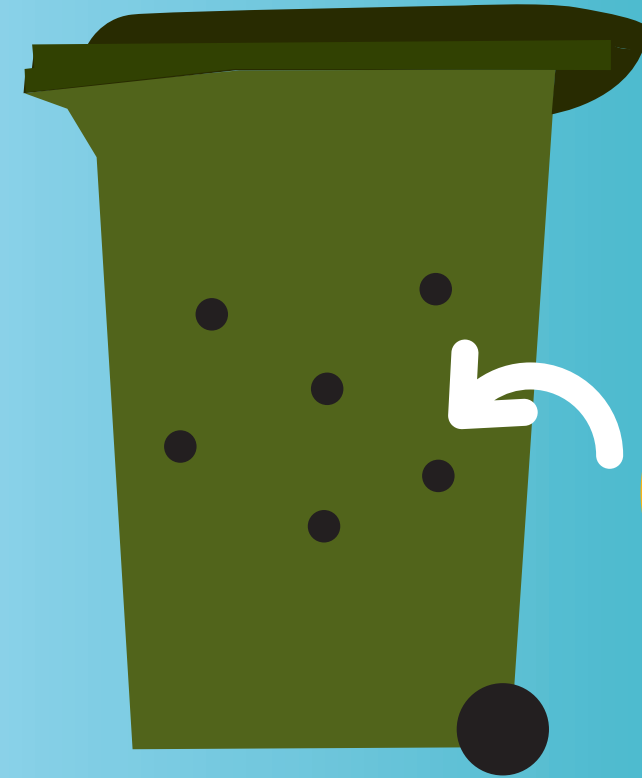


**COVERING THE
STONES WILL
PREVENT THE
WORMS FROM
DROWNING
AFTER RAIN**

STEP 2.



If the soil is dry and difficult to dig, go down as far as possible and fill the hole with water and soak overnight. If the soil is dry and compacted, add a layer of 2cm stones, 15 cm deep, in the base of the hole. Cover the stones with geotextile fabric/weed mat or carpet underlay larger than the dimensions of the bin base. This prevents the worms from drowning after heavy rain.

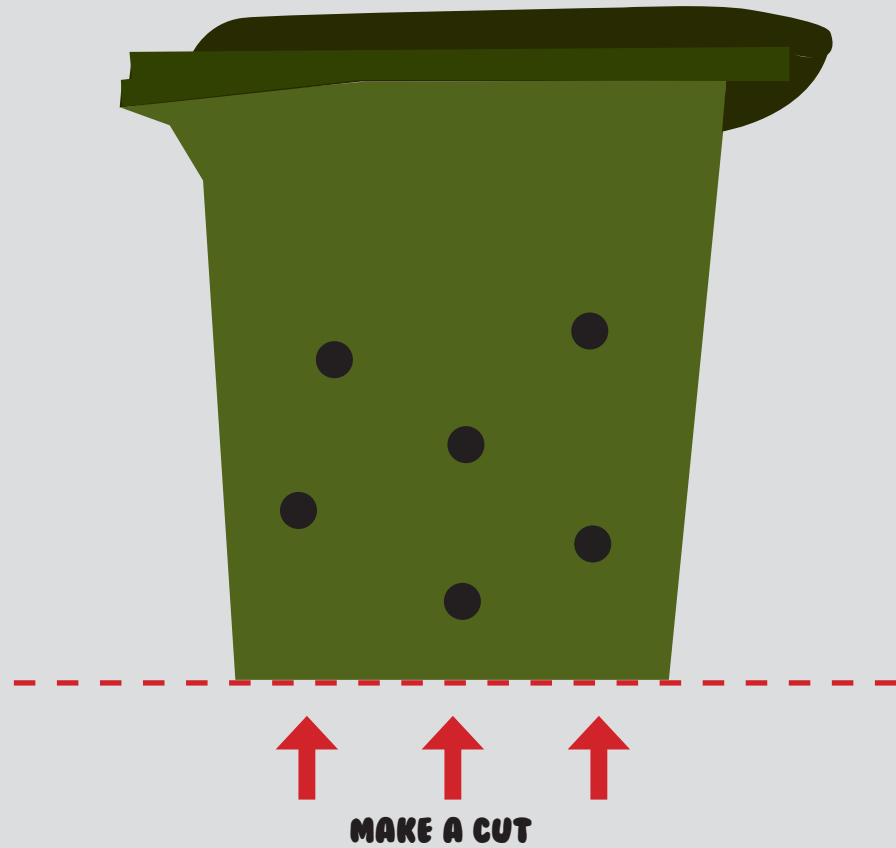


**DRILL 25MM
HOLES ON EACH
SIDE OF BIN**

STEP 3.



Using a 100L or 240L wheelie bin, drill multiple 25mm holes on each side of the bin - at least 5 per side and more for a bigger bin. Ensure that this step is done before the base is removed! Holes should be at least 20cm below the lid. If the holes are too large the surrounding soil may cave into the bin.



STEP 4.



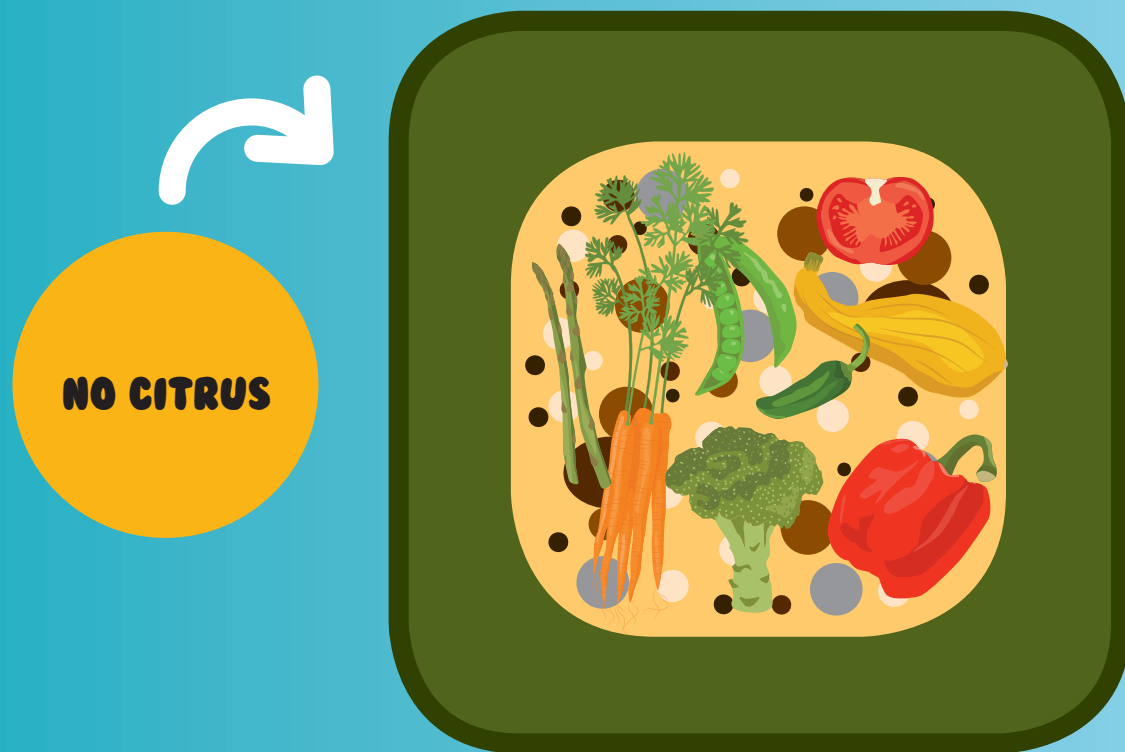
Remove the base of the bin using a saw. The amount removed will depend on the depth of the hole and whether it's in the shade (ideal) or more exposed.



STEP 5.



If the Hotel is in an exposed position, drill two holes on three sides of the upper walls of the bins just below where the lid attaches, leaving the back wall intact. Using waterproof silicon or gaffer tape, attach fine wire mesh to the inside walls to seal the upper holes to exclude vermin and create ventilation.



STEP 6.



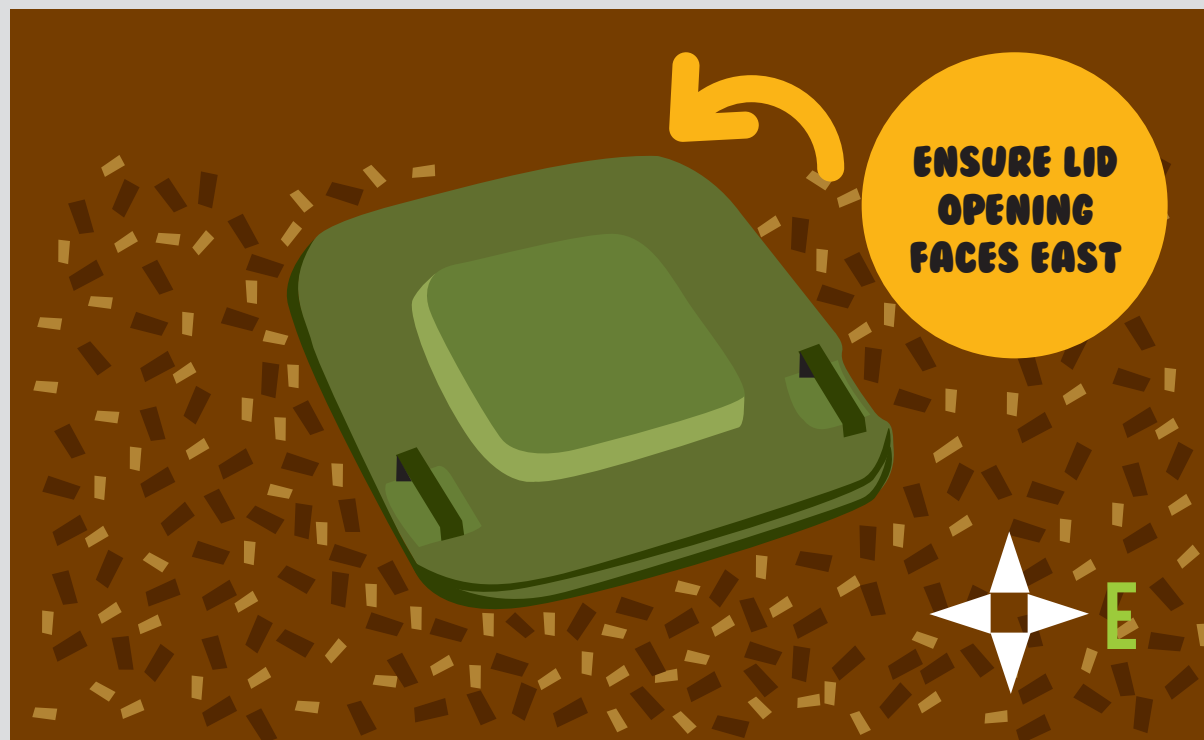
If possible, add 15cm compost and a 1-2cm layer of sand to the base of the hole. Mix. The sand helps the worms digest the food.



STEP 7.



Install the bin in the hole, ideally backfilling the external gap with compost or friable garden soil. Ensure that all holes are covered by the surrounding compost or soil. Don't pack down the compost as this will distort the sides of the bin. Water gently and top up as necessary. Mulch around the bin.



STEP 8.



Ensure that the lid opening faces East to minimise the risk of the lid blowing open in windy conditions and drying the worms. If stones and weed mat/other have been used, the bin should sit above them. If the bin is exposed to wind, place a brick on top to prevent it from blowing open.



STEP 9.



After a few weeks, add additional worms (500 per adult) if necessary. Vary the worm's diet with items from the attached list, and avoid adding those they don't like. Compost worms are available from most garden centres.

The background of the entire page is a light blue gradient. Scattered throughout are numerous stylized worms in two colors: a reddish-orange and a lighter orange. The worms are depicted in various poses, including coiled spirals, loose S-curves, and simple wiggles. They are of varying lengths and are positioned around the central text blocks.

CONGRATULATIONS

**You now have a fully
operational Worm Hotel.**

NOTE:

If **COMPOSTABLE** liners (made from material like corn starch) and caddies are used, the liners and their contents can be put into the bin as-is as the bags are completely compostable. Tie up the top of the bag.

If possible, collect the food scraps in these bags for the first 6 months as each bag becomes a microclimate, allowing the worms breed to breed much faster and devour the food more quickly.

WORMS LIKE:



- ✓ Fruit peelings and vegie scraps
- ✓ Coffee grounds, tea bags & leaf tea
- ✓ Slices of bread (no chunks)
- ✓ Green garden waste
- ✓ Animal manures (organic)
- ✓ Shredded newspapers, paper and napkins
- ✓ Deciduous leaves
- ✓ Crushed or ground egg shells

DID YOU KNOW?

WORMS DISLIKE:

- ✗ Too much food (compostable bags help to control this)
- ✗ Fatty foods
- ✗ Onions, garlic
- ✗ Dairy products
- ✗ Citrus
- ✗ Meat/fish and chicken

TIP: Chop hard skins such as avocado to hasten the composting process.

OTHER TIPS:

12. Egg shells which have been dried in an oven (when you're cooking something else), and crushed finely or ground to a powder can be added to improve worm egg production. Sprinkle approx. 1 teaspoon over the surface each week. An old baby powder/spice jar/parmesan cheese jar with holes is ideal. Rock minerals/garden lime sprinkled over also help worm health.

13. A piece of hessian, weed mat/geotextile fabric or a few layers of newspaper can be placed over the inside surface to maintain moisture if necessary. Most will not need this and can make the bin too wet.

14. Keep the area around the Hotel moist, not wet.

15. If the bin becomes too wet / too dry, check the troubleshooting guide below and adjust the contents accordingly. Because of the design of the Hotel, problems are rare. If the bin is too wet, incorporate some dry deciduous leaves.

16. This style of worm farm is essentially self-sustaining. If it becomes overcrowded, transfer worms and castings to a new Worm Hotel / compost heap / shady garden or share them with family and friends so that they can start a worm hotel.

17. Bins of any size and shape can be used. Simply adjust the worm numbers to suit.

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sustainability
counts.