Worm Composting In Schools

About Composting Worms

Worms eat waste, decompose it in their gut and enrich it with beneficial fungi and bacteria. The nutrient value of worm liquid and worm castings relates directly to what your worms eat. Compost worms are introduced species that thrive in high nutrient environments. The smaller the waste particle size, the larger the relative surface area and therefore the faster and more easily the worms can consume the waste. Chop waste or liquidize with water in a blender for faster breakdown.

Worm Composting Options

- Worm farms or worm towers - partly buried in vegetable/herb gardens are the easiest option
- Bottomless bins – partially bury the base to avoid vermin entering the base of the bin
- Bathtubs – make sure there is drainage in the form of gravel or sand. Catch the liquid if possible.

Controlling direct heat

- Worms cope quite well with daily temperatures of 22-26 degrees because the inside of a damp worm farm is much cooler than the outside temperature
- Position your worm farm in the shade or at a minimum out of the hot, afternoon sun
- Place a thick layer of wet newspaper/cotton/hessian/jute directly over the worms. Where farms, towers and bins are partially buried in gardens, worms can retreat to soil below if too hot.

Feeding your worms

- Feed as much waste as can be consumed in three days. Uneaten material will rot, become smelly and acidic
- If you add animal manure, grass clippings, coffee grounds or other high nitrogen materials, fungi and bacteria will dominate waste break down, generating heat as a bi-product. Add small quantities of these materials to one side of the worm farm so worms can escape to the cooler area
- If you have a worm farm with layered trays, keep at least one full tray of worm castings below your feeding tray, so worms can move down if the feeding tray becomes too hot.

Moisture and pH

- Worms like moisture, but drown easily. Keep the tap open on store-bought worm farms to allow the liquid to gradually drip into a bucket. If the tap is turned off, the worm farm can fill with water and your worms will drown
- Dry leaves, torn egg cartons and straw can be added to balance moisture levels and produce more friable castings
- Add water or diluted liquid seaweed if worm compost is dry
- Compost worms prefer a pH of around 6.5 – 7. Sprinkle a small handful of lime over waste from time to time to provide calcium and increase alkalinity, particularly when feeding fruit/vegetables
- Avoid excess amounts of citrus and onions as worms only eat them as a last resort when they are soft, mushy and less odorous.

Worm liquid and castings

- Carefully apply 9l of water to the worm farm and collect the runoff. Dilute to the colour of weak tea
- Expose your worms to daylight to extract castings. Gently scrape the castings away as the worms move deeper into the waste. Use the friable worm castings when planting.

Problem Solving

- **Smelly worm farms** – too much food, too wet, too acidic
- **Not breaking down** – too much food, too wet, too hot
- **Dead worms** – too hot (external heat or generated from additives). Worms have drowned.

Perfect compost ready to be added to the garden.

In ground composting system using a bottomless bucket and lid.

Old sink converted into a worm farm. Bucket collecting worm juice.

Healthy compost worms.