



Worm farming



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What is worm farming?

Vermiculture is the fancy word for worm farming. But why on earth would you want to farm worms? Are they any old worms? What do they look like? Where do they live and what do they eat and finally, what do you do with it all?

Tigerworms



Image retrieved from:

<https://teara.govt.nz/en/photograph/15508/tiger-worms>

There are more than 200 different types of worms in New Zealand. (The longest one can grow to around 75 cm!) They all do different things in the soils, but the worms we are talking about here are tiger worms. Tiger worms are really special

because they are super good at transforming food scraps into compost. Which is how we get to **WHY** people farm worms. Having a worm farm is one way in which you can turn food scraps into food for plants, **REDUCING** the amount of waste that get sent to the landfill. It's a win-win!

Tiger worms are composting worms. Can you guess why they are called tiger worms? This is not because they have big teeth (worms don't have teeth, eyes or ears or even tongues) but because they have stripes.... They are also composting worms which means they only live in compost- like areas. They are so good at eating organic waste that they can eat their own bodyweight in a day! (Can you imagine eating YOUR own bodyweight in a day? You'd explode!)

Tiger worms turn scraps into a liquid (worm whiz) and castings (worm poos) and they are both powerful fertilisers for plants aka compost. Your worm whiz should look like coffee.

Where do they live?



A worm farm has a few layers. The bottom layer is to collect the worm wees. This usually has a tap so it can be drained. The first layer on that will have holes in it. This way the worm wees can drain and the worms don't get too wet. The worm wee is also a precious fertiliser. This layer needs a 'bed' for the worms. This can be shredded cardboard, horse or cow manure or you can use some existing

compost. When this layer is full with scraps and the worms are happy you add another layer (see photo). Once you start feeding this layer the worms will move into the feeding tray and you can collect the vermicast from the first layer. When the feeding tray is full you can put the empty tray on top etc.

Worms don't like being too hot or too cold so in Northland that means that the worm farm is best put in a shady place.

They also like a moist environment, like wrung out sponge so keep the lid on the worm farm and check every now and then. If they are too wet add some shredded cardboard. If they are too dry add some water.

Their menu



Worms breathe through their skin and don't have any teeth so it is important to feed them the right things. As a rule of thumb worms don't eat anything that will tingle in your mouth. Things like citrus, onions and chilies.

Worms like (yum)

- Most fruit
- Vegetable scraps
- Coffee grounds and loose tea
- Manure (as long as the animals haven't recently been dewormed!)
- Paper and tissues
- Egg shells
- Hair

Worms don't like (YUK)

- Citrus and acidic food
- Chilies and spicy food
- Onion, garlic and leek
- Meat and milk products such as cheese
- Bread and other flour products
- Large amounts of cooked food
- Garden waste
- Shiny paper

What do you do with it all?

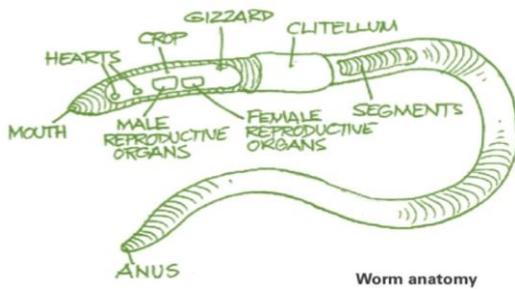
The worm wees should look like coffee when it comes out. You can then dilute it 1:10 (or when it looks like weak tea) and put it around your plants.



When your worm farm is running well your worms should produce lots of liquid. You can sell this as your school fundraiser, using old milk bottles or use it as a zero waste present!

Vermicast, this is the rich earthy stuff that's left by your worms, can also be used in your garden. You can use a small handful by your plants or dilute it in a bucket of water (1:10) and use it as a topdressing for your plants.

Fun Worm Facts



Did you know that Tigerworms:

- Have 5 hearts....
- Breathe through their skin....
- Breathe out nitrus -oxide (laughing gas)....
- They don't have teeth, tongues ayes or ears....
- Have gizzards (a tiny bag of stone) that grinds up their food, just like a chicken....
- Are hermaphrodites? This means there are no girl or boy worms; they are all in one.....
- They can lay an egg a week
- One egg can contain 1 to 5 baby worms.....
- They need another worm to make an egg; they slide under each others' clitellum (that's the bump) which then slides off to make an egg....
- A worm can live up to three years



Worm capsules



Adult worms

Troubleshooting:

Is your worm-farm smelly or not working well have a look and see if:

- the food has gone all slimy and yucky. This means you are feeding the worms too much. Remove the slimy and rotting food and put it in your normal compost. *Solution:* feed them less often. You can also add a bit of shredded cardboard or kitchen towels.
- Worms like a varied diet and need some 'carbons' in there. This means you need to

feed them things like bits of cardboard or straw, or paper every now and then.

- your farm is full of ants? Then add a bit of lime to make the environment less acidic.
- Is your worm farm full of maggots? Then stop putting meat in it! Add some lime and leave it for a bit.

Summer holiday maintenance:

Put a whole lot of horse manure in the worm farm and make sure it's moist. Leave it in the shade and they should be ok!

References

Department of Environment and Conservation, Australia (n.d.). Learning to be Waste Wise. What is Waste?

Retrieved on 7 May 2016 from: http://www.wasteauthority.wa.gov.au/media/files/wws/what_is_waste_chapter.pdf

Nelson Environment Centre (2010). Waste not. A waste education kit for schools. Retrieved on 7 May 2016 from: <http://www.nec.org.nz/wp-content/uploads/2014/05/WasteNot-2010.pdf>