



Guide to Composting and Worm Farms



City of
Ipswich

Composting vs. Worm Farms

What is composting?

Compost is an alternative to general waste disposal, and is a fantastic complementary addition to green waste services.

It allows for every household to dispose of green waste and food scraps in their backyard. Compost is plant and food matter that is broken down to form micro-organisms and nutrients. Compost acts as a rich natural fertilizer for plants and can be used to improve soil quality.



What is a worm farm?

A worm farm is an alternative to compost, and is a farm that breeds compost worms. These worms breakdown food scraps. Worm farms are great for families that do not have the space! They are good outside, inside, on a balcony or in a garage. Compost worms covert organic waste into solid castings and nutrient-rich liquid, this is called worm tea. They are a natural fertiliser for your garden, potted plants and vegetable patches.



Composting Methods

Organic waste disposal	Cost (approximate)	Ingredients	Maintenance	How long until compost, castings or worm tea?
HEAP	free	garden and food waste	turn once a week with fork or spade	3-6 months
PIT	minimal cost	food waste only	turn once a week with fork or spade	6-12 months
CLOSED OR OPEN BIN	\$30 – \$180	garden and food waste	turn once a week with fork or spade	3-6 months
BARREL OR TUMBLER	\$120 – \$300	garden and food waste	rotate up to three times per week	1-2 months
WORM FARM	\$100	garden and food waste (limited)	keep moistened and regularly add worm food	worm tea 2 - 4 weeks worm castings 4 - 6 months
BOKASHI	\$50 – \$120	food waste only	sprinkle Bokashi mix after adding food waste	2-4 weeks



Green Waste Service

Worm Farm or Compost Bin not big enough for your family?

Council offers a high-value, convenient food and garden waste collection service for less than 25 cents per day! Your grass clippings, prunings, leaves, shredded paper, fruits and vegetables will be mulched and turned into compost.

If your interested in this service contact Council on (07) 3810 6666.

Home Composting

- STEP 1** Choose a sunny location for your compost. Select the type of compost system you wish to use.
- STEP 2** Create your drainage layer. The first layer at the bottom of your compost should be a drainage layer that is approximately 10-15cm deep. You should also include one in the middle. Make sure to have a drainage layer at the bottom and in the middle of your compost bin. Drainage materials can include small sticks and dry leaves.
- STEP 3** Continue to layer. Alternate between a green (nitrogen rich) layer and a brown (carbon rich) layer. Cover top layer with newspaper, cardboard or hessian material.
- STEP 4** Remember compost bins require maintenance! You will need to use a large fork or spade to help turn the compost. This provides aeration to the decomposing materials inside. **Make sure to keep your compost moist.** Use the hose and lightly sprinkle water into the heap, if required.
- STEP 5** When your compost is ready to harvest, it should have a dark, soil-like appearance. This is high in nutrients and can be used on your gardens, potted plants and vegetable patches.

Create a Healthy Compost

Green + Brown + Sun + Air + Moisture = HEALTHY COMPOST

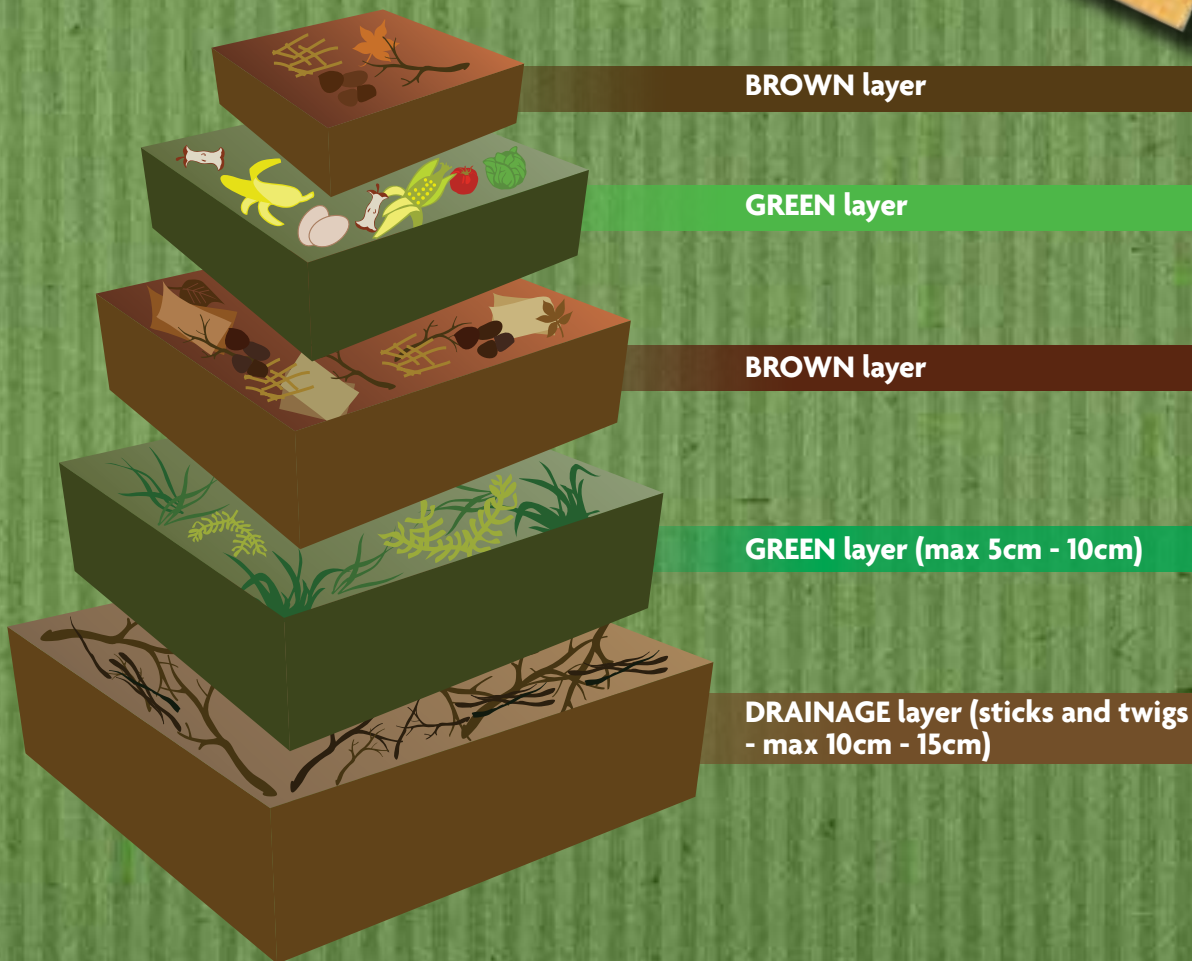
GREEN WASTE	BROWN WASTE	AVOID
✓ Fruit and vegetable scraps	✓ Dried leaves and grass clippings	✗ Manure from carnivores (dogs and cats)
✓ Fresh grass clippings	✓ Small twigs and sticks	✗ Meat and seafood scraps
✓ Manure from herbivores (cows, horses, sheep, birds and chickens)	✓ Paper towels	✗ Vegetable fats and oils
✓ Bread, pasta and rice	✓ Cardboard	✗ Bulbous flowers
✓ Flowers	✓ Straw	✗ Dairy products
✓ Vacuum dust	✓ Newspaper	✗ Weeds (they will sprout in your garden again)
✓ Human and animal hair, and feathers	✓ Tea leaves	and plants sprayed with pesticides
	✓ Coffee grindings	
	✓ Ripped egg cartons	

A Compost Recipe

Every time you add a green layer you will need to add the equivalent quantity of a brown layer.

HINT!

The more frequently you turn the compost the faster the decomposition rate. Ensure to maintain moisture, the compost should be damp to touch.



Worm Farms

Worm farm checklist



Worm farm



Compost worms
(red or tiger worms)



Newspaper, cardboard, hessian material



Food scraps

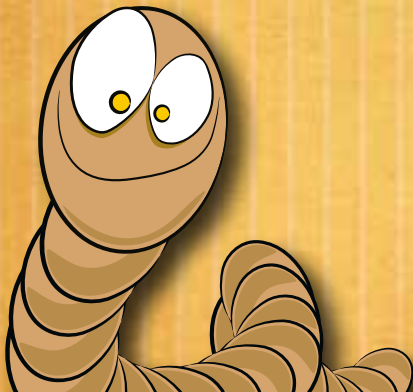


Bedding material
(bedding blocks, shredded paper,
leaves, mulch, compost)



DID YOU KNOW?

Worms only need feeding once to twice a week. This is why green waste services are a great complementary addition to your house.



Starting Your Own Worm Farm

HINT!
Check your farm every few days to prevent drying out.
If dry, add water over the top layer.

- STEP 1** Purchase a worm farm or worm starter kit from a local supplier. You can build your own worm farm using polystyrene boxes or an old bath tub. Start with a minimum of 1,000 worms. You can purchase worms from a local worm farmer.
- STEP 2** Select a well shaded, cool spot for your worm farm. If possible have it close to your kitchen for the convenience.
- STEP 3** Make sure to line the first tier with damp cardboard or a few sheets of newspaper that fit to the edges (this prevents the worms from falling through the holes and into the worm tea collection tray). Place bedding material down, and the worms on top of this layer.
- STEP 4** Place top layer over the worms and bedding. Make sure this top layer is absorbent and moist (ie. hessian, tumbleweed, cardboard or newspaper). Replace this layer when needed.
- STEP 5** Allow your worms to settle into their new home for at least one or two weeks. You may wish to place a chopped up banana peel in during this time.
- STEP 6** Your worm farm requires maintenance! Always check on your worm farm and ensure it remains cool and moist, with no rotting food waste.



Your Worms Home

DID YOU KNOW?

Each day worms consume approximately their own body weight in food.

KITCHEN

Food scraps
(tea bags, banana peel etc)

BEDROOM

Worms, bedding material

BATHROOM

Collecting worm tea-tap



DID YOU KNOW?

Compost worms are not the same as earthworms that live in the garden. Their role is to breakdown the bacteria that grow on organic waste.

Worm Food

HINT!

Cut all worm food up
into small pieces.
Worms only eat small size food,
NOT whole fruits and vegetables.

Fruit and vegetable
scraps

Crushed egg shells

Vacuum dust

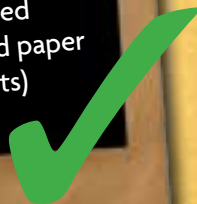
Tea bags









Dog hair

Coffee grindings

Soggy, shredded
cardboard and paper
(small amounts)



AVOID

-  Citrus (orange,
lemon and limes)
-  Onions and garlic
-  Pineapple
-  Meat and dairy
-  Manure from carnivores
(ie - cat or dog)
-  Chilli



Troubleshooting your Worm Farm

PROBLEM	CAUSE	SOLUTION
Unwanted pests	Too dry Not enough oxygen Too acidic	Fill small containers with water and place each worm farm leg into the containers. Add extra water and keep bedding moist. Make sure your worm farm is located in a well shaded and cool location. Add dolomite, garden lime or egg shells to balance the pH.
Small flies	Rotting food Too much food Exposed food	Remove rotting food. Adjust pH level. Reduce the amount of food. Cut the food into small pieces. Worms will not eat large food waste.
Slow to break down	Too much food Not enough worms	Reduce the amount of food. Cut the food into small pieces. Worms will not eat large food waste. Purchase more worms for your farm.
Smelly worm farm	Too much food Not enough worms Rotting food	Remove rotting food. Reduce the amount of food. Purchase more worms for your farm. Aerate by stirring gently.
No worm tea or castings	More time required	Allow your worm farm time to break down scraps. Depending on the size of your farm and the number of worms you have, it can take a few months before you can harvest castings.
Worms are dying	Too dry Too wet Too hot Not enough food	Add extra water and keep bedding moist. Remove from direct sunlight and place in shade. Add shredded paper. Feed more often.



EnviroEd

FREE environmental education

Council also offers programs through EnviroEd, an initiative from the Ipswich Enviroplan consisting of FREE environmental education for schools, community groups and Ipswich families.

- School education programs – lessons developed for inside and outside the classroom
- Holiday programs – Kids Go Wild holiday workshops in Queens Park
- Education in Queens Park – Environmental Education Centre and Ipswich Nature Centre open to the public

**For more information contact
Ipswich City Council (07) 3810 6666**





IPSWICH CITY COUNCIL

PO Box 191

Ipswich Qld 4305

T | (07) 3810 6666

council@ipswich.qld.gov.au

ipswich.qld.gov.au

