

## Successful Composting

Converting our waste to nature's wonder



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My Green Garden  
for Glen Eira

## organic recycling at home

Choose which method suits your situation

- Composting
- Worm Farming
- Bokashi Buckets

Often a combination of two or more covers all situations

## why compost?



Methane is 23 times more potent as a greenhouse gas

## why compost?



COMPOSTING CAN CUT  
HOUSEHOLD WASTE BY 40%  
and reduces your household's  
Carbon footprint

## Compost provides

- Gold for your garden!
- When in soil, worms and soil microorganisms turn it into HUMUS



### HUMUS

- In-soil C storage
- Increases soil's water & nutrient holding capacity
- Acts as insulation for plant roots
- Increases soil micro-flora = life in your soil
- Micro-flora protects plants against pathogens

## composting

Is composting for me?

- Does my garden generate waste eg lawn clippings, light prunings, dried leaves, dead plants?



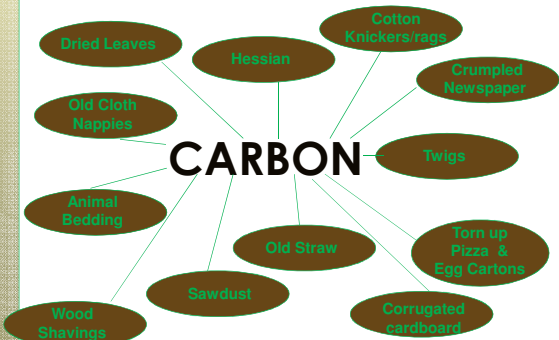
- Kitchen waste: fruit and veg peelings



All compost needs the same 4 components for success

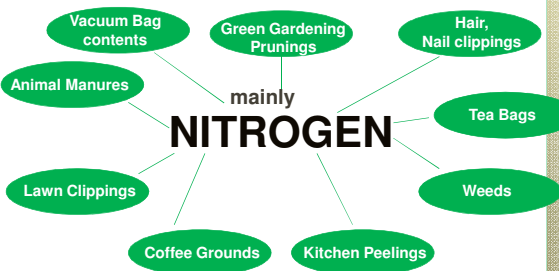
**CARBON**  
**NITROGEN**  
**OXYGEN**  
**WATER**

**CARBON**



“Brown” materials or “Dry” matter

**NITROGEN**



“Green” materials or “Wet” matter

Successful Compost  
needs a mix of  
(volume)

- Carbon
- Dry
- Brown

**30:1**

For every 30cm layer of high carbon content, need 1 cm layer high nitrogen

**N**

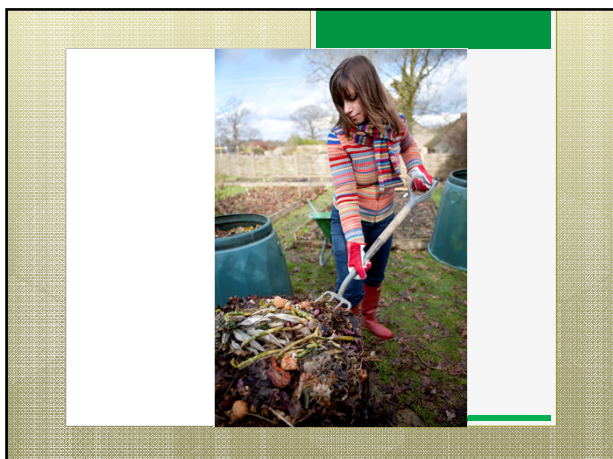
- Nitrogen
- Wet
- Green

- Compost heaps also need

**OXYGEN**  
**To promote aerobic decomposition**


By turning, tumbling, bin design, aerators





compost contents

## WATER




**To keep micro-organisms alive**

- Too wet makes compost smelly
- Too dry slows down decomposition
- Wetness to the point of wrung out sponge

**Other helpful additives to speed up compost**

- Already prepared compost
- Garden soil
- Plant activators such as comfrey, borage or yarrow
- Blood and Bone or other organic fertiliser
- Chook manure or other safe manures (not dog or cat)



**hot composting**

## hot composting

### After a few days to a week

Turn over the contents. The heap should be steaming.

Adding air (oxygen) through the turning helps even decomposition.

Allow the compost to sit to mature when it starts to look "finished".

Compost is finished when the final product does not resemble the initial contents.

## cold composting

is what usually happens in suburban backyards

But **FILL AND FORGET** doesn't work!



Still need a balance of compost components

## cold composting problems

In **Fill & Forget** situations, problems will arise

- ❑ Too smelly
- ❑ Nothing happening
- ❑ Ants invading
- ❑ Vinegar flies infestation

**BALANCE** is needed:  
Learn to compost by "*Feel*"

## cold composting problems

### PROBLEM

- Adding only kitchen scraps results in compost that becomes too wet and smelly

## cold composting solutions

### SOLUTION

Add more **Carbon-based** items regularly  
eg crumpled newspaper, dried leaves, torn up pizza cartons, egg cartons, corrugated cardboard



## cold composting problems



### PROBLEM

- **Huge dump of lawn clippings**
  - has too much Nitrogen and becomes slimy
  - centre heats up but edges remain intact and dry out



## cold composting solutions

### SOLUTION

Keep the clippings in a pile next to the bin and add a 10cm layer occasionally

**OR** mix it through the existing pile with a garden fork

**OR** tumble fresh clippings with some dried leaves

## cold composting problems

### PROBLEM

- Mountains of garden prunings are very bulky. Plenty of oxygen is incorporated but no heat is generated



## cold composting solutions

### SOLUTION

- Chop them up as finely as you can be bothered

**OR** Run over it with a lawn mower or shredder/mulcher

(C/N ratio is quite good)

## cold composting problems

### PROBLEM

Loads of autumn leaves or eucalyptus leaves

Tend to matt together in the compost and not decompose



## cold composting solutions

### SOLUTION

- Keep them in a pile/bag next to the bin, add a layer as needed with kitchen/high N scraps

**OR** layer it in a bin with high N (eg animal manures) and water well.

## cold composting problems

### PROBLEM

Rodents are getting into the compost bin and the kids will refuse to go to the compost bin after a rat has jumped out!





## cold composting solutions

### SOLUTION

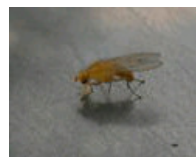
- Use a sealed bin. If it is open to the ground, secure wire mesh on the base and bury it into the ground about 15cm deep
- Use a bin that is completely closed
- Do not put cooked or processed scraps in the compost

## cold composting problems

### PROBLEM

**Vinegar flies are flying out everytime I put something in the bin**

The bin contents are too acidic.



### SOLUTION

- When adding fruit peelings (eg pineapple) bury them under the surface of the compost
- Counteract the acidity by a sprinkling of garden lime
- Cover the top with a decent layer of wetted newspaper and put the scraps underneath

### PS

- Invertebrates actively help decompose organic waste

## cold composting

- **Cold composting** will never fill a bin. As the contents decompose the bin doesn't fill

**You have to decide when to stop and let it mature**



- So how do you keep composting?

### **(At least) Two bins are needed**

1. One has compost left to mature

2. Begin adding to the other

**OR** one compost bin and a pile kept waterproof maturing

**OR** Aerobin



## and when the compost is made

### Use it

- In new garden beds
- Planting holes, incorporated with existing soil
- A 2cm layer on top of soil, under mulch
- Bulk up potting mix
- Make compost tea

*Finished compost is a soil additive or conditioner, rather than a fertiliser*

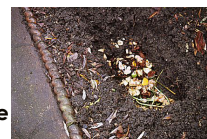
## composting

### Trench composting

- Burying kitchen scraps as you go
- Suitable in veggie patches
- Dig a trench about 15-20 cm deep, line with newspaper or dried leaves. Add kitchen scraps, cover with soil.
- Soon the contents will break down ready for replanting.

#### Disadvantages

- Need empty bed space



### Stand alone (Gedye bins)



#### Disadvantages

#### Advantages

- Cheapest to purchase
- Easy to turn over contents manually
- Enriches the soil over which they stand
- Easy to lift off entire bin to get to finished compost
- Need 2 bins at least
- Not vermin-proof
- Cannot trap leachate
- Must wait until all compost is mature to collect

### Rotating or tumbling bins



#### Advantages

- Aerate contents through the rotations
- Enclosed to deter vermin



#### Disadvantages

- Can get heavy to turn
- Contents tend to clump together
- Still need a second bin
- Leaks!!

### Aerobin



#### Advantages

- A one-bin system
- Central aerating core
- Outlet for compost "leachate"
- Enclosed to deter vermin
- Can access finished compost
- Insulated

#### Disadvantages

- \$379

### Green Cone Solar Digesters



#### Advantages

- Takes all kitchen scraps incl meat.
- Very little maintenance, no turning req'd
- Should be vermin proof

- Sun needed
- Enriches the surrounding soil only
- Needs to be dug into well-draining soil at least 60cm deep

#### Disadvantages

## Open Bins

work best when a lot of material can be added all at once

Best size 1m x 1m x 1m each  
Great for garden waste

### Disadvantages

- Rodents
- Leaching of nutrients
- Need to turn over
- 3 bin system ideal



## composting faq's

Where should I put the compost bin?

Do I need to add worms to my compost?

How soon will my compost be ready?

Can I use compost that is not completely mature?

## other forms of Organic Waste Recycling

## worm farming



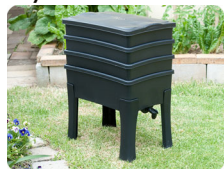
- Great for families with young children
- Good for households with moderate amounts of kitchen scraps/peelings



- Fantastic by-products
- Can be used by householders with no garden and some potted plants
- ✗ Not suitable for garden waste recycling, except for very small amounts of lawn clippings or dried leaves.

## worm farming

- Commercially available versions



- Home made variety



## worm farming

Setting up a Worm Farm requires

- Bedding
- Worms
- Regular amounts of food
- "Pet-sitting"





## worm farming

### Worms love to eat

- Fruit scraps
- Vegetable peelings
- Wet through pizza boxes, newspaper
- Avoid strongly smelling scraps eg citrus and onions; or meat scraps, dairy products



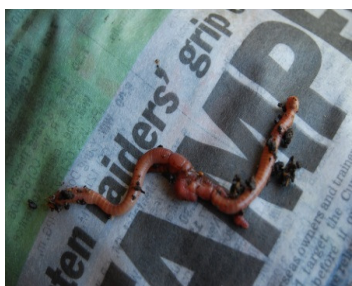
## worm farming

### By-products

- Vermicast  
Walnut-sized amount per plant, watered in or at planting time
- Worm Wee  
Liquid fertiliser, diluted. Water the bedding to make some quickly.



## Rated MA15+



## bokashi buckets

### Advantages

- Takes ALL kitchen scraps, incl. meat
- Very slight smell – very tight lid, can be kept indoors

### Disadvantages

- Bokashi grain is needed
- No garden waste

NB Final product is **fermented**, not composted

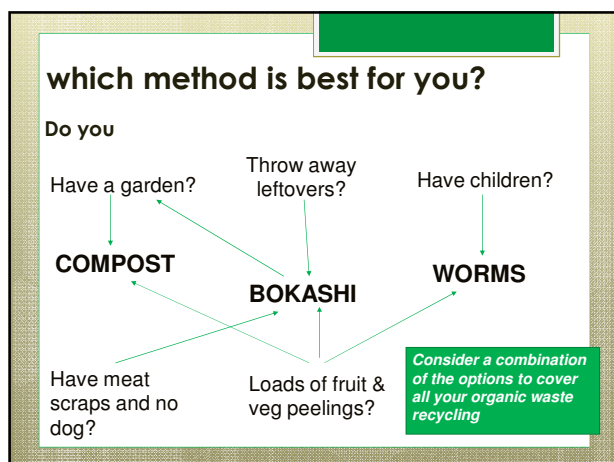


## bokashi buckets

### Produces

- **Fermented waste**, dug into soil, further breakdown results in fertile soil conditioner
- **Liquid leachate**: dilute as a plant fertiliser





**Other resources**

- *Recycle Your Garden* Tim Marshall
- *Soil Food* Jackie French
- *The Healthy Soil Handbook* Earth Garden
- *Gardening Down Under* Kevin Handreck

**Websites worth visiting**

[www.baag.com.au](http://www.baag.com.au) See Factsheets- Soil Health - Home Composting with Worms

[www.sgaonline.org.au](http://www.sgaonline.org.au)

Whatever the question...

The answer is **COMPOST**