



Home Composting Techniques

Contents

∞ Basics about composting

- What is home composting
- What are the benefits
- How does composting work?
- What can be composted

∞ Types of composting kits

- Aerobic
- Anaerobic

What is home composting?

- Composting is a natural process of recycling organic waste from kitchen or garden by breaking it down into soil-enriching humus.
- Composting can be carried out in one's home with ease by taking out time to segregate and collect organic waste thereby starting an active compost system.
- Once the process gets going, nature will take its course with a little help along the way.

What are the vital parameters for composting

- Adding proper segregated organic ingredients at regular intervals
- Maintaining Carbon:Nitrogen Ratio
- Maintaining proper temperature
- Turning
- Maintaining moisture
- Harvesting

How does composting work?

- In nature, organic wastes are broken down and recycled through a combination of biological and chemical processes.
- Biological agents like worms, insects, fungi, bacteria and other microorganisms consume and digest the materials releasing nutrients in the process.
- The humus which is produced is further transformed by the weather process.

Six Easy Steps to make Compost from Kitchen Waste

- 1) Separate the edible kitchen waste (vegetable peels, fruit peels, small amounts of wasted cooked food) in a container.
 - 2) Collect dry organic matter (dried leaves, sawdust) in a small container.
 - 3) Take a large earthen pot or a bucket and drill 4- 5 holes around the container at different levels to let the air inside. (*Drilling holes could be optional*)
 - 4) Line the bottom of the container with layer of soil so as to prevent the spillage of leachate.
 - 5) Now start adding food waste in layers alternating wet waste (food scraps, vegetable and fruit peels) with dry waste (straw, sawdust, dried leaves).
 - 6) Cover this container with a plastic sheet or a plank of wood to help retain moisture and heat.
- Every few days, the pile has to be turned by a rake to provide aeration. If the pile looks dry then water can be sprinkled to make it moist.
 - Within 2- 3 months the pile should start forming compost that appears dark brown, coarse and having a earthy smell.
 - With time and a little patience, composting will can become a person's second nature.

What are the benefits?

- Turns yard, garden waste and fruit and vegetable scraps into a valuable soil conditioner and diverts the organic waste from going to the waste bin.
- Reduces the amount of waste that goes to the landfill thereby extending the life of the landfill.

9 reasons to start Composting today



1. You don't need a PhD to do this -it's simple!

2. You have the raw materials



3. Reduce the strain on the public system



4. Organic waste does not need to travel



5. Mixing organic with other waste is bad for the earth



6. Responsibility + awareness + simple logic = compost at home

7. Help ragpickers & recyclers earn more



8. Compost is nutrition for the earth



9. It's a great way to remember you are connected!



What can be composted?

In the first stage *Kitchen waste* such as vegetable and fruit scraps, grass clippings, leaves, coffee grounds, tea and tea bags, egg shells, sawdust and wood ash could be started with.

In the *second* stage meat and dairy products composting can be commenced such as bones, meat or fish, cooking oils, dairy products, grains or cereals etc

(This can be specifically be done by putting the meat waste in the centre of the bin since the temperature is high in the middle of the bin compared to the top of the bin. This also helps in minimising the odour.)

What's what

Material	Carbon/Nitrogen	Info
Table Scraps	Nitrogen	add with dry carbon items
Fruit & Vegetable Scraps	Nitrogen	add with dry carbon items
Eggshells	neutral	best when crushed
Leaves	Carbon	leaves break down faster when shredded
Grass Clippings	Nitrogen	add in thin layers so they don't mat into clumps
Lawn & Garden weeds	Nitrogen	only use weeds which have not gone to seed
Shrub Pruning's	Carbon	woody prunings are slow to break down
Straw or Hay	Carbon	straw is best; hay (with seeds) is less ideal
Pine Needles	Carbon	acidic; use in moderate amounts
Flowers, Cuttings	Nitrogen	chop up any long woody stems
Wood Ash	Carbon	only use ash from clean materials; sprinkle lightly
Coffee Grounds	Nitrogen	filters may also be included
Tea Leaves	Nitrogen	loose or in bags
Newspaper	Carbon	avoid using glossy paper and colored inks
Shredded paper	Carbon	avoid using glossy paper and colored inks
Cardboard	Carbon	shred material to avoid matting
Corn cobs, Stalks	Carbon	slow to decompose; best if chopped up
sawdust pellets	Carbon	high carbon levels; add in layers to avoid clumping
wood chips / pellets	Carbon	high carbon levels; use sparingly

Types of home composting kits available in market

Daily Dump -Khumba

Organic matter **decomposes** in the Kambha in an aerobic environment (composting in the **presence of oxygen**)

A Kambha is a 3 tier composting product.



The leechate (water discharged by composting matter) filters down Unit A and Unit B to reach the bottom Unit C to be absorbed by the almost done compost and the plant in case of the Kambha with the plant.

The Kambha units are easy to shift once they are full.

Green Tech life –Smartbin Air

greentechlife



Components of Smartbin Air

Smartbin Air (20L) Bins

Strainers

Stand

Tap

Bio Bloom Air

Camphor tablets

Rubber gloves

Curing Bag

<https://www.greentechlife.in/smartbin-air/>

<https://youtu.be/9Z0VNC9WoBI>- YouTube link for Smart Air Bin usage

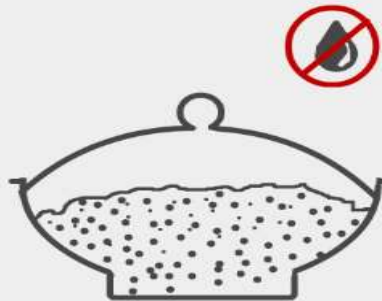
Steps to use Smartbin Air

1. Soak first, rinse thoroughly & then peel



Use **potassium permanganate** solution to **soak** fruits & vegetables for 5 mins. **Rinse** thoroughly **before peeling** or chopping them for cooking. It is **very cheap & available in any medicine shop**. This cleans **pesticide residues, insect eggs, worms** or other harmful substances.

2. Air tight container to collect waste

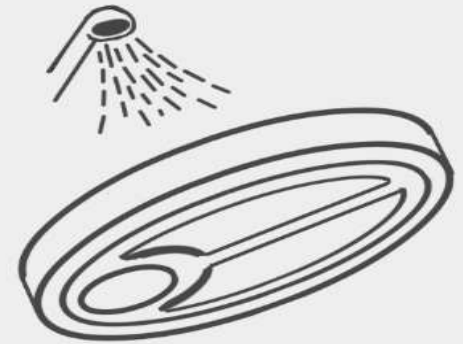


Instead of a microwave safe bowl, use any **air tight** container to collect all your food waste.

Never allow flies to enter this container, or leave food waste exposed.

Once full, **empty it into the Smartbin Air & cover with a layer of Bio Bloom Air & close the lid.**

3. Rinse the lids daily



Smartbin Air lids are insect proof. If an egg survives the soaking & washing & hatches inside the bin, it turns into a tiny white worm & then into a cocoon that looks like a grain of brown rice at the **bottom of the lid.**

Inspect daily and wash them off if you ever see them. While washing the lids cover the bins with a cloth.

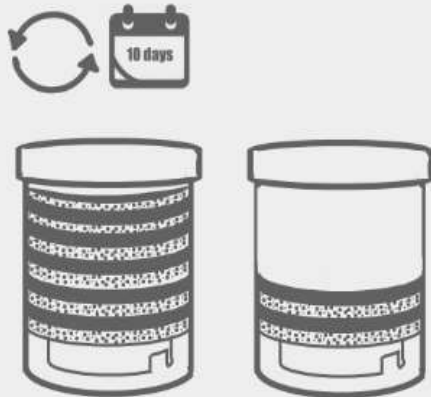
Step 1-Clean

Step 3-Rinse

Step 2-Collect

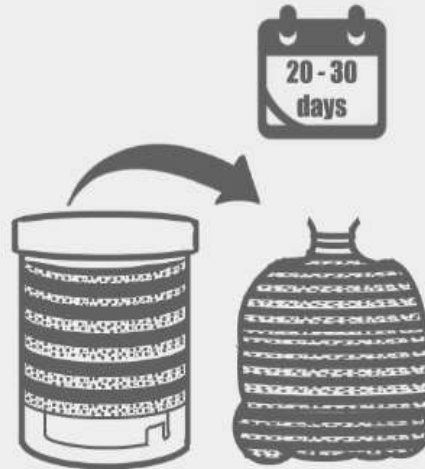
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Step 4



Repeat steps 1 to 3, till the bin fills. Ensure **the waste doesn't touch the bottom of the lid**. Then keep the bin aside **indoors for 10 days** and start using the next bin.

Step 5



After 10 days transfer the contents to the curing bag and **tie the mouth of the bag tightly**. Leave it to cure for 20 to 30 days and your **compost will be ready!**

Step 6



Once you empty the Smartbin Air, fill it with water to dilute the smartbrew accumulated at the bottom. **Water your plants with this liquid to see the magic of smartbrew!**

Step 4-Fill

Step 6-Use

Step 5-Transfer

Eco Bin - Aerobic Composter

- EcoBin Aerobic Composter (20 litres - 1 nos.)
- Drain taps (1 nos.)
- Coco Magic Blocks of 700gms.
- Inner drain tray (1 nos.)
- A pair of imported latex gloves
- Green Storage Container with lid & Handle.
- User Video-
<https://www.youtube.com/watch?v=AxgVQDK3bdM>



Hasirudala – Honey Bee Standard Edition

- 1 Nos. 30 litre closed drums with tap
- 2 Nos. Bio Clean composting accelerator and odour neutralizer
- 1 packet spinach seeds
- Instruction pamphlet
<https://www.youtube.com/watch?v=d3PWW3RNDuI>



I Love Composting - Composting Bin for Individual Homes

- Bin with a lid, Tub, Net plate, Rake
- Compost starter
- Odor and fly control mat
- Saw dust/Rice husk
- Simple steps guide to composting
- Bag to hold it all
- <https://www.youtube.com/watch?v=Bzh-3zYnpfw&feature=youtu.be>



Nitya Jaivika - Composting Bin for Individual Homes

- 16ltrs bucket with lid
- Inoculated Cocopeat - 4kgs
- Spinach seeds

Guide:

http://media.wix.com/ugd/d9f382_158787a2fdc24b67b44423f79637702e.pdf



Reap Benefit De'Grade Plus - Cocopeat

- 5kg pack - Beneficial microbes blended with bio activated cocopeat carrier material.
- Use your own aerated container along with this cocopeat.
- <https://www.youtube.com/watch?v=XynbrVEBpSw>



Shudh Labh - Bioclean Bricks – Cocopeat

- 1 Bioclean Brick – 650gms
- Use your own aerated container along with this cocopeat.

Guide: <https://www.youtube.com/watch?v=SAO23JIlTVc&feature=youtu.be>



Shudh Labh - Easy Aerobic Composting Kit

- Bioclean Bricks – 2 Nos
- 8 ltr bucket with lid – 1
- 25 ltr bin with lid – 1 OR
55 ltr blue drum with lid
- Plate 16 inch - 1
- Processing time :3-4
weeks



Eco Bin - Anaerobic Eco Bin Jr SOLO

- EcoBin Indoor Bokashi Composter (10 litres - 1 nos.)
- Drain taps (1 nos.)
- Magic Microbes - Bokashi bran (1 nos.)
- Inner drain tray (1 nos.)
- A pair of imported latex gloves
- User Instruction Guide-
https://www.youtube.com/watch?v=UgyWkaj_W44



Quantum Leap Guru - Bokashi d.e.c.o.d.e.d Planter Kit

- Nos. 7 lt. Bokashi Starter Solo bin including brew tap and strainer basket. 1 pkt. Bokashi Bran (75 g)
- 3x 8" brown plastic pots
- 1.5 kg. Compost
- 1x Bioclean brick as a medium in the potting mix
- A seed packet
- Bin assembly instructions and quick start guide



<https://www.youtube.com/watch?v=WEGz-CfJTV4&feature=youtu.be>

Let's get real

Concerns	Solutions
I don't have room	Use commercial bin
It takes too long	<ul style="list-style-type: none">■ Maintain proper conditions■ Cut up large pieces
It smells	Not if you maintain C:N ratio
Temps too low to kill diseases, fungi, weed seeds	Use local community composting facility for problem pieces, compost the rest
Attracts animals	Bury food waste in center

What method is right for me???

- How much space do I have?
 - Is it indoor or outdoor or both?
- What do I want to compost?
 - How much waste do I have a week?
- How and where do I want to use the compost?
- How much time can I spend on it a week?
- What's my *ewww!* factor?
- How committed am I to composting?

Thanks