

The “Bokashi bucket” kitchen waste recycling system

The Bokashi food waste collection system was implemented in 2007 with over 40 units placed around buildings on the Wagga campus and continues to grow in popularity. DFM's idea behind this waste system was to collect and divert compostable food wastes away from the main stream garbage disposal which is sent to land fill. Instead, the compostable waste is recycled via composting with other organic wastes from around the campus.

Over 100kg of staff room food waste is collected weekly from around the campus via the Bokashi bucket system and then mixed with other organic wastes from the winery, equine centre, catering and grounds. Around 6 tons of pasteurized products are made weekly at the University.

Staff and at this stage some student residents have been given the opportunity to do their bit for the environment and divert their food wastes away from landfill.



Collecting and processing food wastes may not sound a glamorous task but as the Uni is a learning institution we should lead by example and work toward zero waste sent to land fill.

DFM appreciates the help given in collecting food waste via the Bokashi collection, especially the persons maintaining the units. The Bokashi units do not produce any odours and the liquid available is a high quality liquid fertilizer.

If you have any questions regarding the collection and processing of organics at the University or would like to try the system in your building please contact DFM via:

- The BEIMS maintenance request portal <http://www.csu.edu.au/division/facilitiesm/services/maintenance.htm> or
- William Pollack wpollack@csu.edu.au or
- Call the DFM service desk on extension 32279.

USING THE BOKASHI BUCKET.

The Bokashi Bucket is a practical and convenient alternative for transforming kitchen waste into a nutrient rich soil conditioner. This unique composting system uses the revolutionary EM (Effective Micro-Organism) Bokashi to enable airtight (anaerobic) composting, without the odours associated with rotting food.

STEP BY STEP Guide to using a Bokashi Bucket

1. Place a 3-4 cm layer of organic waste on top of the grate then cover evenly with approximately one handful of EM Bokashi. Add extra EM Bokashi with high protein foods such as meat, fish, cheese and eggs.
2. Press down to remove air after every application. Tip: Use a plastic bag or a potato masher.
3. Ensure that the lid is closed tightly. Why: The fermentation process works best without oxygen.
4. Drain the Bokashi Juice that has accumulated in the bottom of the bucket. Tip: use as liquid fertilizer, see FAQs below.
5. Keep layering food scraps and EM Bokashi until the bucket is full.

When the bucket is full, top it up with a generous layer of EM Bokashi and let the contents ferment for a period of 10-14 days at room temperature, continuing to drain off the Bokashi Juice regularly. While this full bucket of waste is fermenting, you can begin the process again in a second Bokashi bucket.

Once the fermentation period is over, you will see that the food looks similar to pickles. The Bokashi Bucket composting process has been a success if it smells similar to pickles or cider vinegar. Occasionally, particularly after longer fermentation periods, a white cotton-like fungi growth may appear on the surface. This shows that a good fermentation process has occurred.

HELPFUL TIPS for using a Bokashi Composting System

- You can never add too much EM Bokashi; better too much than too little to ensure complete fermentation and good smelling compost.
- Only add fresh food waste to The Bokashi Bucket, never rotten or mouldy wastes.
- Break or chop large waste into smaller pieces.
- Remember to compact the waste to remove the air.
- Always close the lid tightly and drain the Bokashi Juice that accumulates at the bottom frequently.
- Do not add water or excessive amounts of fluids.
- Keep the bucket in the shade.
- Wash the bucket after emptying it.
- The Bokashi Bucket has been designed to be used with EM Bokashi. Used with other products may result in putrefaction rather than fermentation of food wastes.
- Bokashi Juice contains nutrients from the food waste and is alive with Effective Micro-organisms (EM) and makes a terrific garden fertiliser.

This is a new approach to composting. Don't be afraid to experiment with it until you get a feel for how this process can work for you.

Bokashi FAQs

What can I put in my Bokashi Bucket ?

You can compost most kitchen food waste including fresh fruit and vegetables, prepared foods, cooked and uncooked meats and fish, cheese, eggs, bread, coffee grinds, teabags, wilted flowers and tissues.

What can't I put in the Bokashi Bucket?

Do not put liquids (water, milk or fruit juice), paper and plastic wrap, or meat bones into the Bokashi Bucket.

How do I know my Bokashi is ready to use?

Bokashi Compost will look different to compost that has decayed in a compost bin. The food waste does not break down while it is in the bucket, so much of its original form will remain and it will have a pickled appearance. The waste will breakdown completely a few weeks after it has been transferred to the soil.

What does Bokashi do for my garden?

Burying Bokashi Compost in the garden will supply the plants with a nourishing food source and condition your soil with enriching microbes. The Bokashi Bucket composting system significantly accelerates the composting process of organic waste. Bokashi Compost is acidic when first dug in, but neutralizes after 7-10 days. Be sure plant roots do not come directly into contact with the compost as it may burn the roots, particularly if the plants are very young. Fresh compost can be stressful to new plants so it is best to wait two weeks before planting you favourite veggies, flowers etc.

How do I use Bokashi Compost?

Dig a hole or trench approximately 20-25 cm deep. Add your fermented Bokashi Compost and mix in some soil. Cover with remaining soil. For established gardens, dig the holes around shrubs or between rows of trees.

If you don't have space to dig a new hole every time you empty your bucket, you can create a "Bokashi compost heap" by burying a large bottomless plastic bucket with a good lid (30 litres and above is ideal) up to its neck. Mix a little soil to each batch of Bokashi Compost that you place into the bucket.

Can I use Bokashi in planter boxes?

You can use your Bokashi Compost in planter boxes, tubs or pots by placing it directly into the container for further fermentation. Fill 1/3 of the container with potting mix (new or used) then add the Bokashi Compost and mix with soil. Fill the remaining 1/3 of the container with potting mix and cover with a plastic bag to maintain anaerobic conditions. Wait two weeks before planting you favourite veggies or flowers, or transfer potting mix into smaller pots for planting.

My Bokashi looks and smells bad, what do I do?

Bokashi should not have a strong rancid or rotten smell, and there should not be black or blue-green fungi. To fix these problems

- Add more EM Bokashi
- Ensure you close the Bokashi Bucket lid tightly after every use
- Drain the Bokashi Juice frequently from the bucket
- Keep the bucket away from prolonged and direct exposure to sunlight or extreme temperatures

If your fermentation process has struck problems, find a spot in the garden, away from plants and dig a 30-35 cm hole. Place 3 handfuls of Bokashi into the bottom of the hole tip the poor batch of compost into the hole and mix with some soil. Sprinkle another 3 handfuls of Bokashi onto the poor compost and fill the hole in with soil.

Why is my Bokashi juice a different colour?

The amount and colour of the Bokashi Juice produced will depend on the type of foods you have put into The Bokashi Bucket.

Why is my Bokashi bucket not producing any liquid?

Moist foods such as fruit and veggie scraps will result in more juice, but it is not essential to produce liquid.

What can I use the Bokashi Juice for?

Bokashi Juice can be used:

- In the Garden –To fertilise an existing garden or pot plants use 1 teaspoon to 2-3 litres of water and apply directly to the soil. For trees and shrubs use 2 teaspoons to 2-3 litres of water. Do not apply directly to foliage.
- Around the House – Pour the concentrated Bokashi Juice directly into your kitchen and bathroom drains, toilets or septic systems. The Effective Micro-organisms (EM) will help to prevent algae build-up and control odour. It will also help to clean up our waterways by competing with harmful bacteria.

Bokashi Juice cannot be stored and must be used within 24 hours after draining from the bucket .

Quality paints, oils and varnishes
Healthy cleaning and household
Luxury organic bed linen
Gentle baby care
Biodegradable bags and tableware

Printed on 100% recycled paper

Water and energy saving
Select books, stationery and gifts
Natural personal care
Guilt-free disposable nappies
Really green gardening



The **Bokashi Bucket** is a practical and convenient alternative for transforming kitchen wastes into a nutrient rich soil conditioner. This unique composting system uses Effective Micro-Organisms (E.M.) Bokashi to create the ideal conditions for airtight (anaerobic) composting, eliminating the odours.



What YOU CANNOT Bokashi

NO

Liquids including:



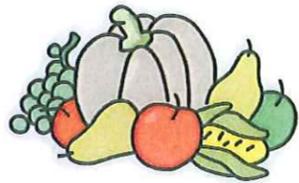
Milk

Juice

Water

What YOU CAN Bokashi

YES



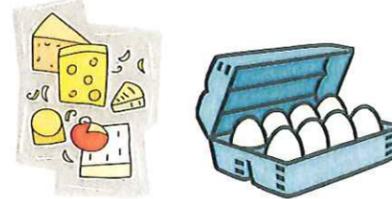
Fruit and Vegetables



Breads Cakes and Pastries



Fish and Meats (Raw or Cooked)



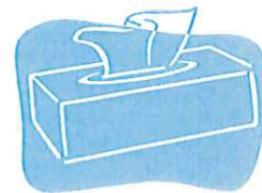
Cheese and Eggs



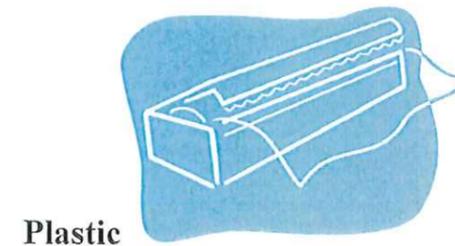
Tea Bags Coffee Grounds



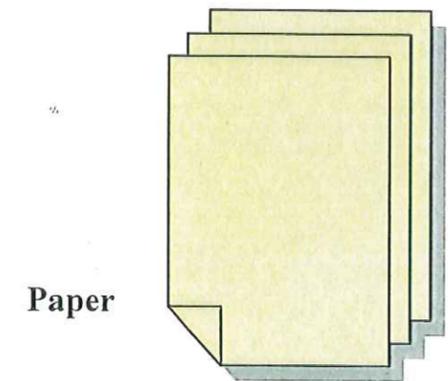
Wilted Flowers



Tissues



Plastic



Paper

TIPS:

- Only add fresh food not mouldy or rotten wastes
- Break or chop large waste into smaller pieces
- Always close the lid of the bucket tightly and compact the waste by pushing it down
- Do not add water
- Drain the fluid that accumulates at the bottom frequently

Bokashi liquid contains nutrients from food wastes and makes great fertilizer. Mix 1 teaspoon with 2-3 litres of water and apply to the soil around plants (not foliage) within 24 hours.

Pour Bokashi Juice directly down the drain and the E M will compete with harmful bacteria to prevent algae build up.

Your Bokashi composter will be collected, emptied and returned monthly by DFM and this pre-composted mix will be added to our composting operation, pasteurised and reused on the University Grounds.

A Facilities Management Environmental Initiative.

Contact: Facilities Management Service Desk 693 (32279)