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Bokashi Composting Guide



BOKASHI COMPOSTING GUIDE

What is Bokashi?

Bokashi is a Japanese term meaning fermented organic matter and refers to a 2-step method of indoor composting that uses beneficial micro-organisms to quickly ferment many types of food waste including fruit, vegetables, meat, dairy and bread.

Step 1: Fermentation - takes place indoors in your Bokashi bucket. As you layer your food waste with a starter mix, the microbes present in the starter mix quickly ferment the waste. Once you have filled a bucket you set it aside for 10 - 14 days and start using another bucket. Two weeks later the initial bucket of waste will be fully fermented and ready for Step 2.

Step 2: Decomposition - is done in the garden, compost pile, or even in your own soil factory. Most waste will be indistinguishable from the soil in a week or two, although certain items like bones, egg shells, and corn cobs will take longer to disappear and will act as a slow release fertilizer. While the waste is decomposing it is still quite acidic so wait 10 days before planting.

The active ingredients in the process are the effective microorganisms – a combination of lactic acid bacteria, photosynthetic bacteria, and yeast - that in effect 'pickle' your food waste. These microbes are present in your Bokashi Starter Mix (fermented wheat bran), which is sprinkled over the layers of food waste as you fill your bucket.

A healthy Bokashi bucket does not create bad odours, greenhouse gas, or heat - uses no power, and is completely natural. What you should smell when you open the bucket is a slightly sweet, fermented (sour), perhaps slightly alcoholic odour and it should not be offensive. Of course, that is only if your Bokashi bucket is healthy so please carefully review and follow the instructions found in this guide.

Benefits of Bokashi

Bokashi is a great option for food waste for those living in apartments/condos or for those looking to use their food waste as a nutrient rich soil amendment in their garden or plant pots. Bokashi can be:

- fairly easy to maintain
- very affordable
- can use most food scraps (including meat, dairy and cooked foods) and
- provides a nutrient rich soil amendment for your garden or plant pots

Materials Needed

- A minimum of two 5-gallon buckets with tight fitting lids
- Absorbent material (peat moss, shredded newspaper, sawdust)
- Bokashi starter mix
- Food scraps chopped into small pieces (see sidebar)



✔ What You Can Put In Your Bokashi:

- Fruit & vegetable scraps (skins, cores, & all)
- Cooked foods (minimize oils, sauces, & fats)
- Meat, fish, bones, egg shells, nuts
- Coffee grounds & filters (avoid bleached filters)
- Tea leaves, tea bags (remove staples)
- Rice, pasta, bread, beans
- Dairy products including cheese, yogurt, etc.
- Wooden cutlery & popsicle sticks

* add more starter with high protein scraps like dairy/meat.

✘ What Not To Put In Your Bokashi:

- Liquids such as soups, milk, juice, etc.
- Thick bones or shells, large pieces of meat/fish
- Moulding or rotting waste
- Medicines, vitamins or other pills
- Diapers, pet waste, cigarette butts
- Any non-organic materials like metal, glass, etc.
- Avoid cardboard, paper & paper products*

* use shredded newspaper only when an absorbent is needed.

Green Calgary sells both a Bokashi Starter Mix (made by MyCrobz Bacteria Solutions) and a Bokashi Kit, which includes everything you need to get started.



Instructions to Get Started

Store your bucket in a cool (not cold) dark dry spot in your home. Before you start adding food waste, put about an inch or two of absorbent at the bottom of your bucket. Then sprinkle a small handful (2-3 Tbsp) of Bokashi Starter Mix. Now you're ready to start collecting your food waste.

1. Collect your food waste (chopped into small pieces) in a bowl without a lid.
2. Dump the bowl contents into your Bokashi bucket daily (before food starts to rot/smell).
3. Squish with a plate, potato masher, or similar to remove air pockets
4. Sprinkle a small handful of Bokashi Starter Mix over the waste (approx. 2-3 Tbsp).
5. Close by replacing the lid for an air-tight seal.
6. Repeat Steps 1-5 until your Bokashi bucket is full, then set it aside with the AIR TIGHT LID for 10 -14 days so that the last waste you put in has a chance to fully ferment.
7. While you are waiting for one bucket to finish fermenting, you can start a new bucket.

Remember: your finished Bokashi won't look like soil; instead it should be fermented and indistinguishable food waste without any offensive odours.

Troubleshooting Your Bokashi Bucket

Keeping your Bokashi in balance is very important. It can be difficult and time consuming to deal with problems but easier to avoid issues right at the start so you have a positive Bokashi experience. Here are some of the common issues to avoid:

- » Before adding any waste to the collection bowl, be mindful of the size of food waste that you are hoping to break down in your bucket. Ensure you chop or cut dense scraps into a manageable size, particularly meats and cheeses, so that the microbes can break down these foods quickly.
- » Be on the lookout for how moist your bucket gets. Avoid adding wet items (fruit, fresh veg, soups, some dairy) unless you remove what excess moisture you can, and add some dry waste or an absorbent to balance out the moisture level.
- » If you open your bucket after a few weeks to find the waste covered in a layer of white wispy mould, this is perfectly normal (and expected) in a healthy Bokashi bucket. This is not really mould – it is a by-product of the “good” bacterial growth, which will help with the fermentation process.
- » A healthy Bokashi bucket does not create bad odours; what you should smell when you open the bucket is a slightly sweet, fermented (sour), perhaps slightly alcoholic odour and it should not be offensive.
- » There will be signs (and smells) if something is wrong. When it comes to Bokashi – the nose knows! If something has gone wrong it will begin to smell rotten or putrefied - and you may

even notice black or green mould starting to grow. Common reasons why this may happen:

- The bucket is too wet;
- There isn't enough starter between layers
- Rotten or moulding food waste has been added; or
- The lid didn't create an airtight seal.

The important thing is not to panic as there are some quick ways to bring it back into balance:

8. The best approach is to first make sure your waste is compacted, add 2 handfuls of Bokashi Starter Mix, seal the lid and put aside for a day or two.
9. If that doesn't solve the problem, then sprinkle a handful of dry molasses or granular sugar over the contents of the bucket and wait another day.
10. If your Bokashi bucket does not improve following steps 1 and 2 above, your bucket may not be easily rectified. If this is the case, we recommend you bury the contents somewhere out of the way and a little deeper than normal (as it is now an animal attractant). This waste will eventually breakdown and enrich the soil but the process may take several months.
11. Once you have emptied the fermented waste; give your bucket a good wash with soap and water and leave it in the sun to remove any odours.

If you need additional support, don't hesitate to contact our Help Desk or EcoStore. We're here to help.

What to do with finished Bokashi:

When your Bokashi bucket is full of fermented waste that is ready to use, you have a few options:

12. Bury it in the Garden: dig an area of about 4 square feet and bury your finished Bokashi approx. 1/2 a foot deep (break it up into a thin layer) and cover with at least 2 inches of soil. Keep this area moist (not overly wet) prior to planting (please wait a minimum of 10 days after you've buried your Bokashi before planting as the soil can be quite acidic at first).
13. Compost Accelerant: Simply break up the fermented waste and roughly mix it into your backyard compost pile.
14. Making Your Own Potting Soil: To create your own soil factory you will need a large open container or tub. First add a layer of used soil (20 litres), then dump in the contents of your Bokashi bucket and break apart the waste. Next add another 20 litres of soil and mix it into the fermented waste. Finally top off with another 20 litres of soil and ensure that all the contents are moist but not wet. After a few weeks you will have a good supply of an amazing nutrient rich potting soil.
15. Feed Supplement: Your fermented waste is a great probiotic feed supplement for chickens, pigs, and worms – and they will love it! Just remember that it is quite acidic at first so start them off slow by introducing a bit at a time.
16. Wait: Or you can just leave your bucket of fermented waste (up to 6 months) till you are ready to dump it. This can be useful during a long winter – and if you need to use your bucket in the mean time you can simply transfer the contents to a large garbage bag, close it up, leave it in the snow and wait for spring.

Once you have emptied the fermented waste; give your bucket a good wash with soap and water and leave it in the sun to remove any odours.

Additional Information:

Bokashi Starter Mix: is a wheat bran enriched with microorganisms that helps with the fermentation process. These microbes lay dormant until activated with the addition of food waste. This starter can also be used:

- As a soil amendment
- As a deodorizer
- As a feed supplement or
- To restore health to septic systems

Absorbents can help soak up excess moisture. We recommend shredded newspaper, clean sawdust, or peat moss. Always ensure that the material you add as an absorbent is bone dry so it can do its work in the bucket.

Please note: while paper and cardboard are compostable in bigger, hotter compost piles, we recommend not adding these materials to your Bokashi bucket or any backyard or vermi composter. These materials can be recycled in Calgary so put them in your blue bin or drop them off at your local community recycling depot.

Ingredients in the Bokashi Starter Mix we carry: wheat bran, lactic acid bacteria, photosynthetic bacteria and yeast that are certified organic by Debio. All of the organisms and ingredients are compliant with the USFDA's GRAS (Generally Recognized As Safe) List and are safe for people, plants, animals, soil and water.

Contact the EcoStore at 403.230.1443 ext. 222 or email products@greencalgary.org for more information. We also offer a variety of composting workshops that include Bokashi basics and troubleshooting. Check the "Upcoming News & Events" section at greencalgary.org for the next available workshop dates.



www.greencalgary.org

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