

PROCEDURE FOR MAKING

BOKASHI

A guide for small-scale farmers

What is Bokashi?

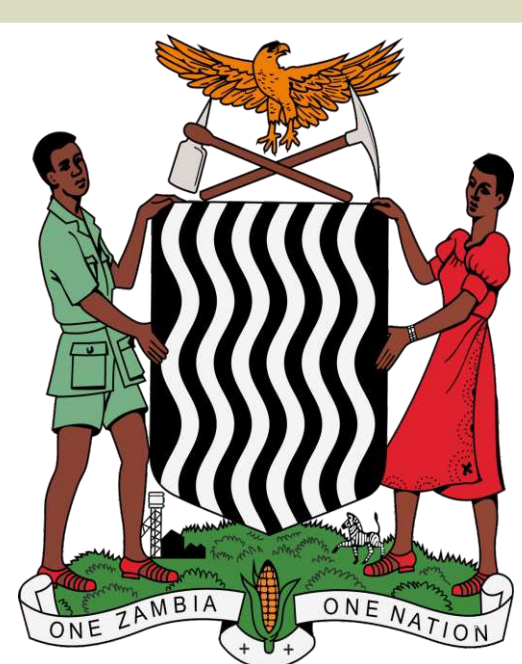
Bokashi is an organic input produced by half-cooking organic materials in a carefully controlled way. Half-cooking means the materials used to make Bokashi don't get completely decomposed during the Bokashi making process.

What materials do I need to make Bokashi?

To make Bokashi, one needs the following:

- ▶ 7 by 50kg sacks of manure as a source of nutrients and microbes. Any kind of manure can be used, although a mixture of manures is best and it is better if the manure is dry.
- ▶ 7 by 50kg sacks of dry materials such as maize stover, rice husk, dry leaves or even sawdust. A mixture of materials is best. The dry materials should be cut in small pieces to make it easy to turn the heap.
- ▶ 5 by 50kg sacks of soil preferably clay or native soil. Soil is a good source of microbes for the Bokashi.
- ▶ 1 by 50kg sack of biochar (optional). Biochar provides a very good environment for microbes.
- ▶ 1 by 50kg sack of rice, wheat or maize bran. Bran is very good food for the microbes.
- ▶ 5l of molasses. Molasses is a good energy source for microbes. If you can't get molasses you can use 2kg sugar made into syrup (dissolve the sugar in water) but molasses is better and cheaper.
- ▶ 500g yeast to speed-up the fermentation process and help the microbes to multiply fast.
- ▶ Rock dust or bone meal as source of minerals. If these materials are unavailable, ash can be used.
- ▶ Water with no chlorine in it.

Please note: the quantities given above are merely a guide and can easily be adjusted depending on the quantity of Bokashi that one needs and on the availability of the materials.



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Step-by-step guide for making Bokashi



Step 1.
Choose a site that is protected from the rain, wind and direct sunlight.



Step 2.
Start by placing a layer of dry material, followed by a layer of manure, then a layer of soil. On top of the layer of soil, add a layer of biochar and a layer of bran. Note that the actual sizes of the different layers do not matter much as these layers will be eventually mixed.



Step 3.
Mix some molasses and yeast in 5l water and sprinkle the mixture on the set of layers.



Step 4.
Repeat steps 2 and 3 until all the materials are used up. Note: when the Bokashi heap is completed, it should not be more than 1.5 m high.



Step 5.
Turn the heap so that all the layers become mixed together.



Step 6.
Sprinkle some water as you turn the heap. Be careful not to add too much water. The heap should be turned 3 to 4 times to ensure that all the materials are well mixed and the right amount of water is obtained.



Step 7.
Use the squeeze test to check if enough water has been added i.e. Take a fistful of the mixed Bokashi material and squeeze it. If water comes out between your fingers, you have too much water. If the material can't form a sausage shape when you roll it in your hands, then you have too little water. If there is too much water, turn that heap again and add more soil as you turn. If there is little water, turn the heap and sprinkle more water. Note: after the first day, no more water is to be added to the Bokashi heap.



Step 8.
Managing the Bokashi heap - If you can insert your hand in the Bokashi heap and leave it there for about 10 seconds without burning, it means the temperature is correct. This should be about 55°C. For the first 4 days, turn the heap twice a day in the morning and evening. If, after inserting your hand in the heap, you have to remove your hand quickly, it means the heap is too hot and there is need to lower the height of the heap.



Step 9.
From the 5th day, turn the heap once a day until the temperature becomes the same as that of the surrounding. This is usually 12 to 15 days from the day when the heap was made. At this point, the Bokashi is ready for use. Use Bokashi soon after it has been made as it will be strongest (remember the decomposition process will still be going on even after the Bokashi making process is completed). It's not a good idea to store bokashi for longer than a