

Simple steps for making effective microorganism (EM) bokashi to improve soil fertility



Small pieces of fuel are dropped into the stove. In this photo, the fuel is dry dung pats



Charcoal is made while warming 9 litres of water with a TLUD stove.



Water is poured onto the char after flames no longer come out of the top of the stove, to prevent the char from burning into ash.



Charcoal from harder pieces of fuel, such as small pieces of wood, mangetti shells or maize cobs, needs to be crushed. If done immediately, then it will not be dusty as the char will still be wet from extinguishing.



Charcoal from smaller pieces of fuel, such as mahangu husks or cowpea pods, do not need to be crushed at all. Charcoal from dry dung pats is soft enough to be crushed by hand.



Half a 25 kg bag of maize or wheat bran, which occupies about 33 litres, is poured into a 60 litre tub (Mahangu husks, from which the pieces of seed stalk have been removed, could be used instead of bran).



If available, add 6 litres of seed cake or animal feed maize-meal to the tub.



Then add 6 litres of crushed charcoal to the tub and mix all three dry ingredients.



The ingredients of the tub are mixed together



Stir 700 ml of molasses in the 9 litres of warm water until completely dissolved.



Stir in 500 ml of multiplied Effective Microorganisms (EM).



Spread this liquid over the dry ingredients in the tub and wet them thoroughly by mixing with a spade.



Pour the moist ingredients into a garden refuse bag while pressing down to remove as much air as possible.



Tie the bag tight with a piece of string.



Store the bags in a shady place for about six weeks, by when the bokashi should have a pleasant smell and perhaps white fungi.



Three handfuls of the bokashi can be added to each planting basin and mixed in with the soil and manure shortly before sowing.

The EM bokashi helps the fertility of the soil because it contains:

- Effective microorganisms that help the plant to obtain nutrients from the soil
- Bran or husks, molasses and seed cake that feed the effective microorganisms
- Char that improves soil structure and holds onto water and nutrients.