

# **Demonstration of Bio fertilizer and Bio-extract production**

Biofertilizers can be made using kitchen waste. To make the fertilizer, first mix water with molasses. The molasses is a carbon source or source of energy for the microbes. In the absence of molasses, you can use sugar or any sweet substance.

## **Making bio extract**

After mixing the molasses, add the kitchen waste but it's important that you first chop the waste into small pieces.

In case the kitchen waste isn't submerged in the mixture of water and molasses, add more water and stir.

Cover the container but do not seal it to allow the exchange of air between the mixture and the surrounding.

Stir the solution the following day, and then after every 2 days.

After three weeks, the extract will be ready for use and in this, first, filter the mixture and dilute before use.

The quality of the extract depends on the materials from which it is made for example extract made from meat waste has more nitrogen than that made from vegetable waste.

## **Making biofertilizer**

To make biofertilizer, you need compost, rice bran, and a microbial activator. First, put the microbial activator in water to make the microorganisms active. Mix the water with the compost and ensure that the moisture content is about 50 to 60%.

Add rice bran together with the compost and microbial activator and mix.

Cover the compost pile for about 4 days.

## **Making compost**

Start by spreading a layer of grass and compact the layer

while spreading water on the layer.

Spread cow dung on the layer of grass, broadcast urea fertilizer, or bio extract from meat or fish extracts because they also have more nitrogen.

Mix the microbial activator in the water, mix, and sprinkle it on the compost pile.

Cover the compost pile with polythene or banana leaves and ensure that you turn the compost at least once every week, and the compost will be ready in 30 to 45 days when the microbial activator is used and 2 months or 3 months when the activator isn't used.