Production of biofertilizers

Traditionally,
chemical fertilizers that are high in nitrogen have been used for this
purpose however, these have a lot of ecological and agricultural problems
eg groundwater pollution. Biofertilizers are a substitute for these harmful inorganic fertilizers and cause no environmental damage as well as aid in plant growth in ways that inorganic fertilizers can not. Biofertilizers can be produced from locally available materials and these include rice husks, rice barns, bamboo leaves, soil, and water.

Fertilizer making

First, soil containing useful microorganisms is
gathered. The microorganisms increase microbial diversity in soil and plants
restoring nutrients that significantly increase soil quality and plant growth.
To gather the microorganisms, dig a 5cm hole in an undisturbed patch near a
tree and collect soil from here.

Carefully weigh 1 kg of bamboo leaves, 5 kg of rice husks, 2 kg of rice barn, and 1 kg f the soil. Mix these ingredients thoroughly and while mixing, pour
some water over the barn to add moisture.

After mixing, transfer them into a 50 cm diameter bucket, spread them
evenly, and create a depression in the center to allow for ventilation. This
prevents the microorganisms from overheating.

Cover the bucket and let it rest in a shade. Mix the
contents every 4 days, creating the depression for ventilation

and this
should be repeated for a month. The product is ready for use when a white mold grows on the surface.

processing the microorganisms

In order to process the microorganisms, you need 0.5kg of the dried sample, 15 liters of molasses, 1 net bag, and 75 liters of clean water.
If molasses is not available, you can use 15 kg of brown sugar.

Place 0.5 kg of the dried sample in a net bag and tie it. Measure 15 liters of molasses into a 100-liter container and quickly fill the
container with water. Soak the net bag in the solution and stir in one
direction.

Once the mixture has been evenly mixed, seal the container and let it stand for 30 days without opening t. After 30 days, the solution
should be fermented and a white layer should be visible.

Producing the vegetable biofertilizer

Different biofertilizers can be produced depending on the materials used. Vegetables, herbs, or fruits.

To produce vegetable biofertilizer, mix 1 part of microorganism, 1 part of molasses, and 10 parts water and 1/3 of the container will be
filled with chopped vegetables. The exact mass of the ingredient to be used
depends on the desired mass of the final product.

Measure the ingredients carefully and mix them, stirring in one direction. Add the chopped

vegetables and still stir in one
direction, and when all the vegetables have been put, cover and keep the mixture
for 15 days.

The biofertilizer will be ready for use when the smell of alcohol is present together with a white film on the surface. Before using the biofertilizer, it must be diluted appropriately and the ideal mixture is 30ml of biofertilizer per 20 liters of
water.