

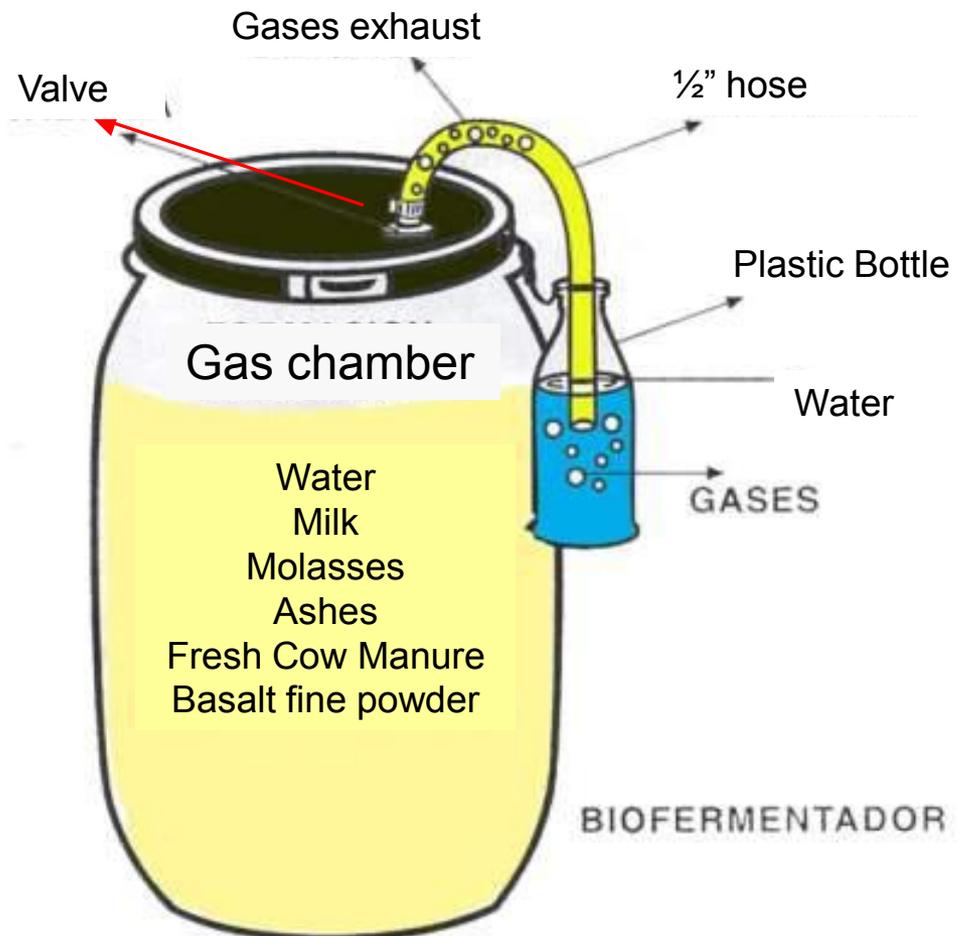
Biofertilizer

The biofertilizer is a ferment which contains a lot of energy and a very wide variety of minerals

It is made of fresh cow manure (straight out of cows hole) also can use fresh rumens, enriched with ashes and basalt powder (we call it rock flour or rock dust) and molasses. It must ferment anaerobically for at least 2 months.

It can nourish, regenerate and reactivate soil's life, it also revitalizes plants, at the same time stimulates their immune system against disease, fungi and insect attack.

Apart from all this, it can also be used as a substitute for expensive chemical fertilizers which, by the way, keep poor farmers trapped in a vicious circle not only making him dependent on this soluble (plants fast food) so called *nutrition* but also deteriorating his soil year after year.



INGREDIENTS

for the fermentation

Biofertilizer

Ingredients and materials

Materials

One 200 lts drum (food grade) with loose lid (make sure it has its gasket ring and iron belt to seal it perfectly)

One 1/2" initial coupling (used in drip irrigation to insert it into a pipe or larger hose onto one side and the drip line onto the other).

1 meter of 1/2" transparent hose
1 ring for it
1 meter of wire (to hold the bottle from the drum)

One 5/8" flat drill bite (used to drill holes in wood)

One empty 2 lts plastic bottle (like cacacolas)

Ingredients

50 liters of fresh (from the day) cow manure or (50 liters of fresh rumens)

2 kg of wood ashes mixed with
2 Kg of basalt rock powder*
1 Kg of Phosphoric rock dust

2 lts of milk
(better if you can get whey)
2 lts of molasses
1/2 Kg of yeast (dry or wet)

150 lts of chlorine free water

(Since what one is looking for the living bacteria, for better results you can replace the cow manure with 50 liters of rumen direct from the cows stomach)

*Basalt powder and ashes must be well grinded (the finer the particles the better)

Biofertilizer

Preparing the container



First of all, get a 200lts plastic container (for food purposes) as shown in photo.

Important. Make sure lid is as big as the diameter of the container.

Then get a *terminal coupling* (the type used in water dripping systems to connect a 1/2" hose to a 2" pipe)



This section goes outside the container. Here is where you insert the hose for the gas exhaust.

This section goes with gasket in-between the lid

This section goes inside the container

Drill a **VERY small hole** on one side of the lid, just big enough to get the coupling through it by pushing it **HARD**.

Insert gasket before inserting the coupling in the lid.

Insert Coupling with gasket in the lid, make sure is well tighten

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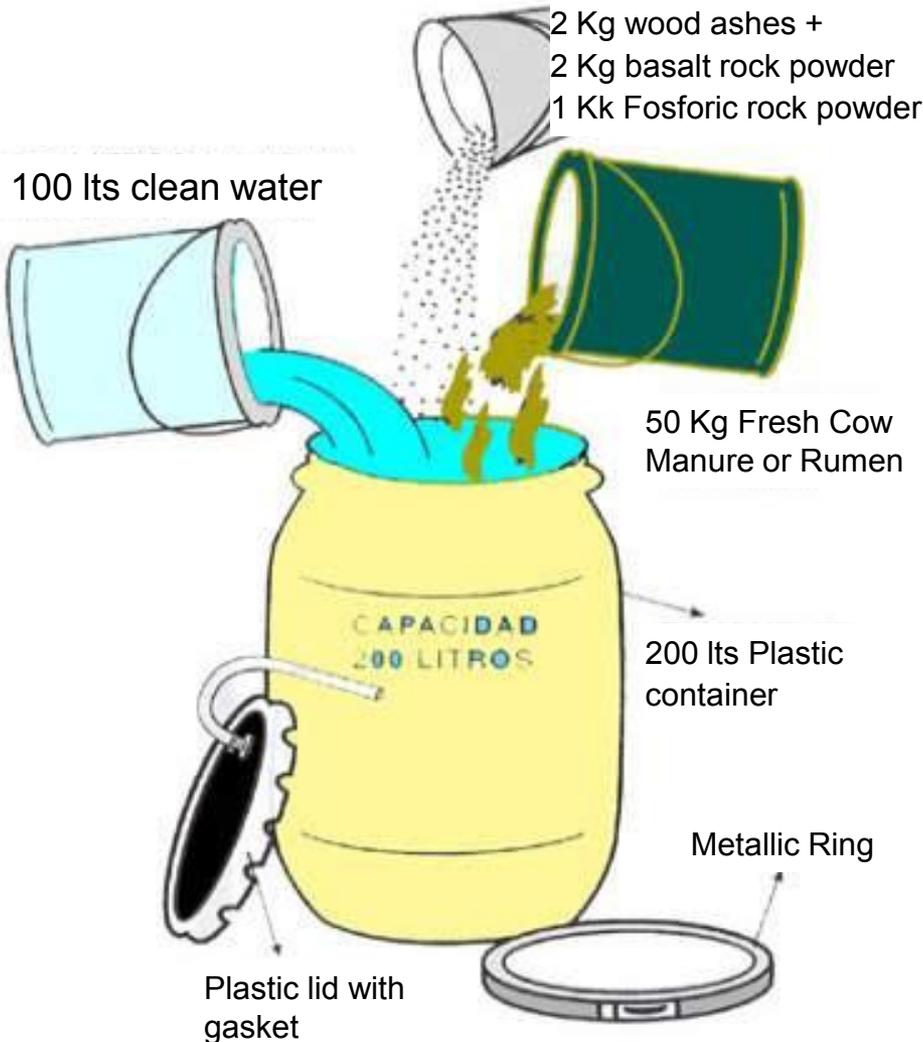
Preparation

Step 1. In a 200 lts plastic container (for food transport use) add:

- 50 liters of fresh (from the day) cow manure or (50 liters of fresh rumens)
- 2 kg of wood ashes mixed with
- 2 Kg of basalt rock powder*
- 1 Kg of Fosforic rock dust
- 100 lts of water

(Since what one is looking for the living bacteria, for better results you can replace the cow manure with 50 liters of **rumen** direct from the cows stomach)

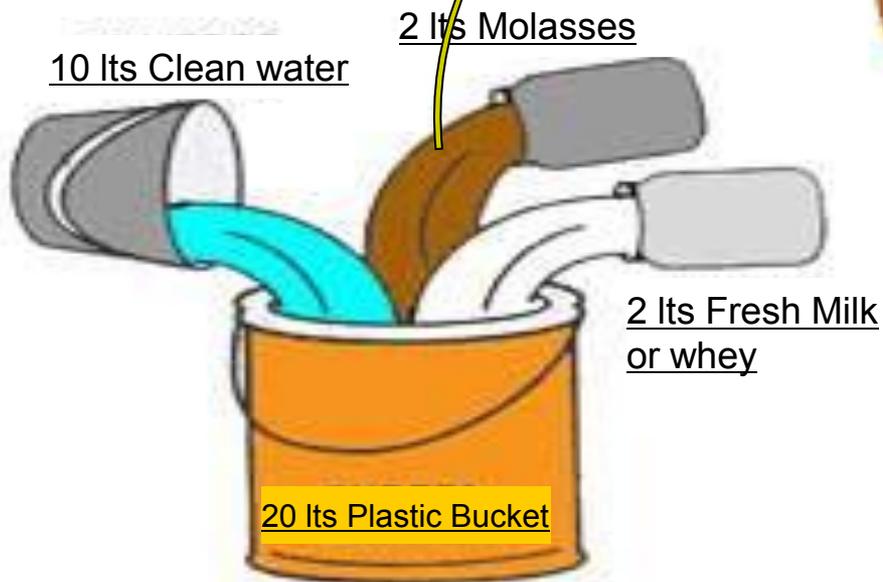
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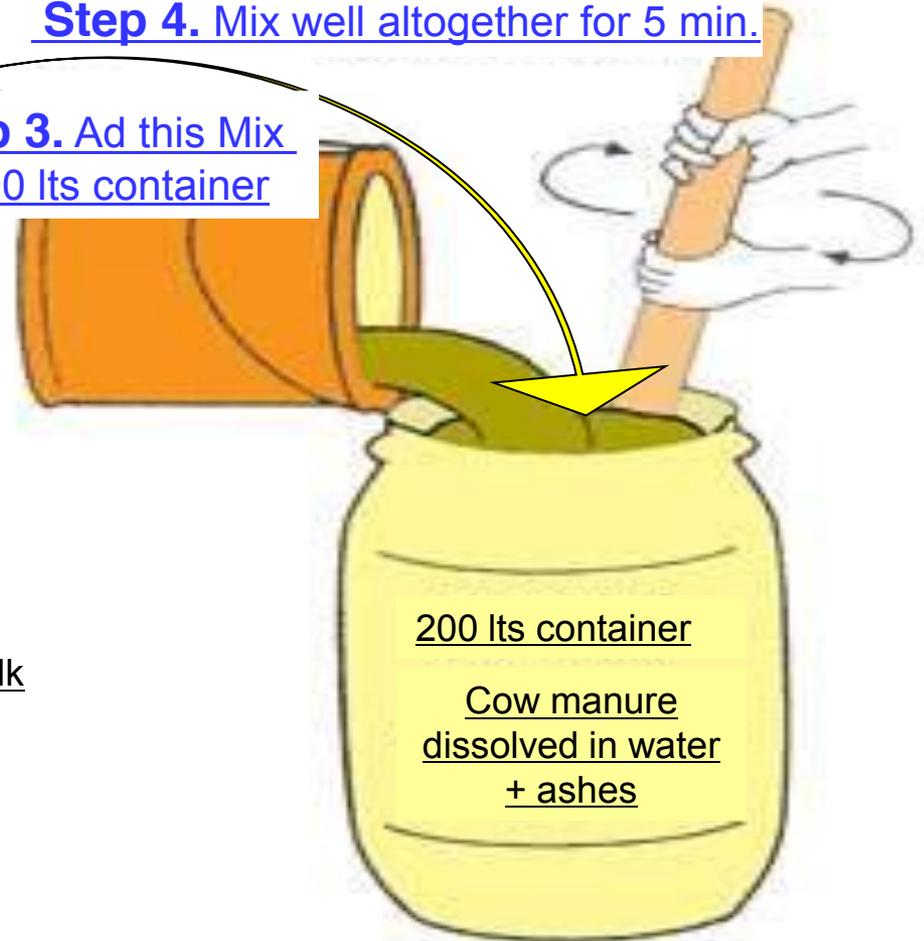
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Step 4. Mix well altogether for 5 min.

Step 3. Ad this Mix to 200 Its container



Step 2. Dissolve 2 Its molasses + 2 Its fresh milk in 10 Its of water



Step 5.

Add water up to 20 cms
from the lid
(making sure you leave this
20 cms gap between the mix
and the lid!!)



Step 6. Put the lid on, arm the iron ring around it secure it and hang a plastic bottle full of water from it..



Insert one end of a 1/2" plastic hose in coupling and tighten it with a clamp.

Insert the other end into plastic bottle filled up with water.

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Step 7. After making sure that the container is *air tight* (bubble in the hose must go downwards and then push bubbles through the water), leave it in the shade for at least 2 months to ferment peacefully.

You are always welcome to see it farting anytime!!



Since is a fermentation process, you will notice that during the day is more active (warm) at night is less active (cold), eventually it will seem to have stop farting (NO problem) fermentation continues at a very low rate.

The more months ferments The better jjust like good wines!

Biofertilizer quality test



Smells putrid
its color is violet

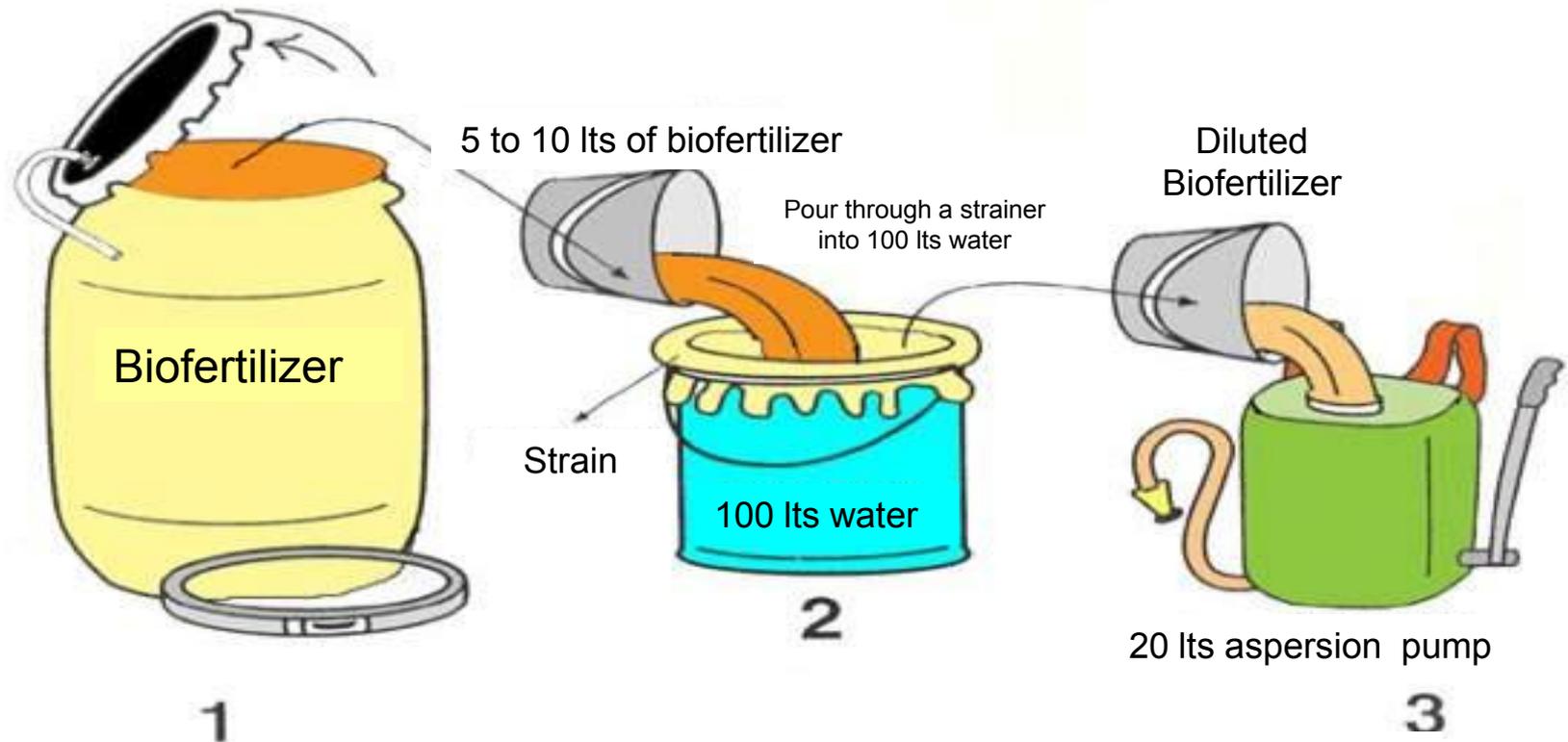


Smells fermented
its color is transparent amber.

*After 2 or 3 months you can check the quality using the code above shown.
To reactivate the fermentation, add 2 lts molasses dissolved in 2 lts of milk and seal again.*

Biofertilizante Dilution

Dilute 5 to 10 lts of biofertilizer
en 100 lts of clean water.



Concentration for foliar applications

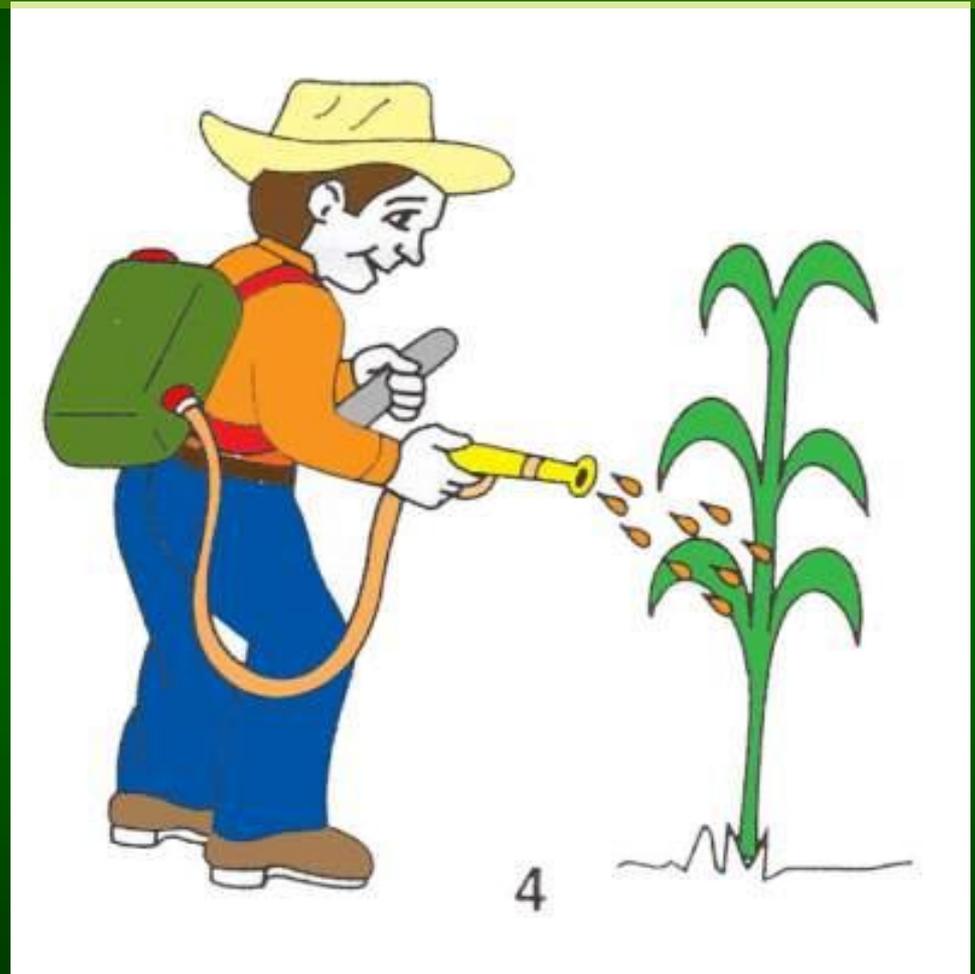
Biofertilizer application

Spray early morning during the first hours right before 9 am or late in the afternoon after 6pm when the sun is gone.

The reason for this is that pores under the leaves are open only when the sun is not present (to avoid excessive transpiration).

Therefore when one sprays them at the recommended times the biofertilizer is more efficiently absorbed by the plant.

For better results Aim the nozzle towards the back of the leaves.



- Good harvest!!