

Liquid Manures

Fertilizing Through The
Liquid Medium



Introduction

- Liquid Manures are very quick to make and hence very useful during the farm conversion period
 - puts the material through a fermentation process
 - acts like a quarantine esp. when you get material from outside which are likely to have chemical residues
- Used as a plant tonic (to provide nutrients like nitrogen, phosphorous)
 - this is a supplement and hence use only after 20-25 days after sowing
- Different types of liquid manures can be made predominantly from locally available plant materials.
 - Even weeds on your farm can be used.
 - Weeds indicate a deficiency in a certain element and it helps put the deficient elements back into the soil.
 - Weeds are often called accumulator plants for this reason
- Used also as a insect/pest & fungal control and to provide trace elements.

What To Use

- To provide nitrogen
 - Foliage from Gliricidia, Sesbania, Sunhemp or Alfalfa (has 24% Nitrogen)
 - Fish meal (crushed heads and other waste parts of fish – esp. good for fodder crops & vegetables)
 - Neem, Castor, Pongemia cake.
- To provide phosphorous
 - use Chicken/ Cow dung or even Pigeon dung
- To provide Potassium
 - Bat dung
 - Bats eat a rich variety of insects and the dung is rich in Potassium and Urea
- To provide micro-nutrients
 - Sea Weed
 - It also is a good source for Potash
- To provide trace elements
 - Your locally available weeds (including Parthenium)
 - Yarrow

What To Use (Contd.)

- Insect Control
 - Marigold , Neem, Calitropis, Datura, Jatropa,
 - Neem+Gliricidia
 - 50-50 very good
 - Gliricidia leaves
 - esp. good for repelling caterpillars.
 - Lantana
 - This plant is rarely sick
 - Has an ingredient that gives it this resistance
- Fungus Control
 - Casurina (Whispering Tree)
 - Esp. good in orange orchards

How Do We Make It

- For leaves/flowers
 - Use a 200 litre drum.
 - Fill the drum $\frac{3}{4}$ full with the material
 - Fill with water till the material is completely immersed.
- For oil cake, seaweed
 - Use 12.5 kg per 200 litre drum
- Mix each BD prep. (502-506) from a BD set (1 gm. each) in a CPP ball and place just below the surface.
 - You can pack each ball in a coconut fibre pouch
- BD507 is stirred with a little water and poured into the drum
- Place 3 bricks on the surface of the foliage to keep the leaves below water level.
- Cover with gunny sack to prevent water evaporation

When Is It Ready

- Let the preparation stay undisturbed for two weeks.
- After after 2 weeks stir daily.
 - Otherwise the material will rot and anaerobic fermentation will happen and you will have a terrible stink.
 - Keep the drums along a road well travelled by you so that every time you walk past the drums you can give it a good stir.
- It is ready for use in 8-10 weeks
- Sieve through Cloth
 - Use residue in compost.
 - Can be stored for 6-8 months after this

How Do We Apply It

- Use in a dilution of 1:10
 - i.e. 4 litres to 40 litres per acre
 - Stir for 10 minutes before applying
- Apply 2 days before full moon in the evening.
- Alternate every 2 weeks with CPP application till 2 weeks before harvest.

Biodynamic Panchagavya - Ingredients

- Uses 5 by-products from the cow
 - Cow Dung 10 Kg..
 - Ghee 2 Kg.
 - Milk 5 Lts.
 - Curd 5 Lts.
 - Cow Urine 5 Lts.

Biodynamic Panchagavya - How Do We Make It

- 1st day mix cow dung and ghee and let it stand
 - Mix just like we did for making the CPP
- Mix in the curd, urine and milk and stir well for 5 minutes
- You can hasten the process by adding either 1 Kg. of jaggery or coconut water (from 2 coconuts)
 - this gets the yeasts rolling
- You can optionally add 10 bananas
- Add ½ Kg. CPP
- Stir every day
 - You cannot add the Preps. because it needs to be stirred everyday
- Ready after 15 days
 - Yields about 25 litres of Panchagavya
 - It will be golden coloured and sweet smelling when ready

Biodynamic Panchagavya - How Do We Use It

- Use at 5% dilution i.e. for 100 liters add 5 liters of Panchagavya
- 100 liters per acre after dilution
- For fruit trees
 - Use this as a foliar application every month
- For a field crop
 - 3 times
- Spray during the evening and descending moon
- Can be used to withstand a drought – because the ghee puts a thin film on the leaves and lessens the transpiration
- Can be used as a seed dressing – 5% dilution
- After green manure ploughed in. use this to speed up the decomposition
- In low pressure irrigation system be careful because the fat can clog up the sprinkler and there can be small particles