

# PANCHAGAVYA

INGREDIENTS	QUANTITY
• Biogas slurry or cow dung	5 kg
• Cow's urine	3 litres
• Cow's milk	2 litres
• Curd from cow's milk	2 litres
• Ghee from cow's butter	1 litres
• Sugarcane juice	3 litres
• Tender coconut water	3 litres
• Banana	12 numbers

## PREPARATION:

First mix cow dung with ghee and small quantity of cow's urine. Leave this for 3 days. Place this in a broad mouthed mud pot and add the remaining ingredients. Mix well by hand and without closing with lid keep in shade. Daily morning and evening mix well by hand. In about 10 days panchakavya will be ready. If you mix it daily with hand or with a wooden ladle it would keep well for a month.

# **FARMER'S EFFECTIVE MICROORGANISM (FEM)**

<b>INGREDIENTS</b>	<b>QUANTITY</b>
• <b>Pumpkin</b>	<b>3 kg</b>
• <b>Banana</b>	<b>1 kg</b>
• <b>Papaya</b>	<b>3 kg</b>
• <b>Jaggery</b>	<b>3 kg</b>
• <b>Egg</b>	<b>5 numbers</b>
• <b>Non-chlorinated water</b>	<b>10 liters</b>

## **PREPARATION:**

Cut the vegetables into small pieces. Transfer these pieces into a clean plastic container. Mix jaggery in 10 liters of non-chlorinated water till it dissolves well and add the eggs to it. Mix all the contents. Close the container with airtight lid. Open lid after 10 days to release the air. Mix well again. Keep the set up closed for 45 days.

## **COLLECTION OF FEM:**

After 45 days there will be three layers in the container. The upper thin layer is in white color, which indicates successive fermentation. The middle layer will be pure brown colored liquid and the lower layer will be the semi solid formed by the dissolved vegetables. Open the tap fixed at the bottom of

the container to collect the semi solid portion in one container. The upper and middle portions are collected in another container.

### **APPLICATIONS OF FEM:**

- 2% to 5% concentration in water can be used as foliar spray on any crop.
- It also acts as a weedicide if it is used with goat's urine.
- It may act as a pesticide if used after being fermented with neem, papaya & neerium leaves.

# **AATTOTTAM**

## **INGREDIENTS:**

- **Goat dung (soaked in water overnight)**
- **Goat urine (fresh)**
- **Green gram after grinding (soaked in water overnight)**
- **Goat Milk**
- **Curd from goat milk**
- **Banana (ripened)**
- **Tender coconut water**
- **Fermented coconut water**
- **Sugarcane juice**

## **PREPARATION:**

Aattottam is prepared in a wide mouthed clean plastic container. Metal containers should be avoided. Fresh goat dung (soaked in water overnight) and goats urine are to be added into the container and mixed thoroughly. The other ingredients are then added one by one to the container and again mixed thoroughly. This is to be stirred twice a day in clockwise and anticlockwise directions. Aattottam stock solution is ready for use after 14 days. Keep in shade and cover with a thin cotton cloth to prevent insects from laying eggs and formation of maggots on the surface of the solution. The solution can be stored for a period of six months, provided it is stirred twice

everyday. If the solution is too thick to stir over time, water or tender coconut water can be added in required quantities.

### **APPLICATION:**

Apply 2% in water as spray during dawn or dusk on any crop. The solution should be filtered properly before pouring into the hand sprayer. For best results, spray at the time of branching, before flowering and fruit setting.

- It provides excellent nutrients to the soil.
- It assists in plant growth and increases chlorophyll.
- Improves branching, leafing, flowering and fruiting.
- It is easy to prepare and is an excellent plant growth promoter.

# EGG LIME FORMULATION

INGREDIENTS	QUANTITY
• EGG	10 numbers
• LIME	20 numbers
• JAGGERY	250 gm

## PREPARATION:

Take about 20 limes and squeeze the juice into a container (bucket). Take about 250 gm of jaggery and mix it well with the lime juice to form a solution. Place 10 eggs with their shells in the lime solution. Close the container with an airtight lid and keep it in the shade for about 10 days. On the 10th day, the eggs along with the shells inside the solution would have become rubbery like a rubber ball. Use your hand to mix the egg along with the shells in the lime-jaggery solution and top it up with equal quantity of jaggery solution (about 500 ml) to the lime-jaggery solution. Close the container tightly for about 10 days. After the 10th day the formulation is ready for use as a foliar and soil spray in agriculture field.

## APPLICATION:

- This formulation can be applied to crops such as paddy, wheat, banana, vegetables, greens, fruits and trees.
- It helps in good plant growth.

- It can also be mixed with Panchagavya and Vermiwash for better results.

# **GUNAPASELAM**

## **INGREDIENTS:**

- **Fish waste**
- **Native jaggery**
- **Clay pot**
- **Water**

## **PREPARATION:**

Take a clean clay pot of 10 liters capacity and fill with five liters of water. Add powdered native jaggery and stir well to dissolve in water. Then add fish waste and mix it thoroughly. Tie the mouth of the pot with a cotton cloth to prevent the entry of flies. Mix the pot every day by whirling the contents. After 14 days decant the liquid and use it as a organic liquid foliar spray.

## **APPLICATION:**

Apply 3% to 5% in water as spray during dawn or dusk on any crop.

- It provides excellent nutrients to the soil.
- It assists in plant growth
- In addition with other sprays it helps in control of root grubs.

- It is easy to prepare
- Excellent plant tonic

## **NCBT 01: BIO CONTROL OF WHITE GRUBS**

### **To control the white grub in agriculture field**

<b>INGREDIENTS</b>	<b>QUANTITY</b>
• <b>Cow's urine</b>	<b>1 liter</b>
• <b>Water</b>	<b>9 liter</b>
• <b>Ginger</b>	<b>100 gm</b>
• <b>Garlic</b>	<b>100 gm</b>
• <b>Asafoetida</b>	<b>10 gm</b>

#### **PREPARATION:**

Mix the neem cake, turmeric powder, and coriander powder together. Soak the neem cake in water for 1 day; filter the extract of neem cake then spray.

Take a clean pot and put 1 liter of cow's urine with 9 liters of water, crush the ginger, garlic, asafetida and close the pot with a cloth & with lid, leave the set-up for about 15 days.

#### **APPLICATION:**

- Recommended to use along with Neem cake (2 kg), Turmeric powder (2 kg), Coriander powder (2 kg), Panchagavya (2 liter), Vermiwash (2 liter) and Gunapasela (1 liter). Spray the neem extract to both soil and plants.
- Spray ginger, garlic, coriander extract to plants only.