

BIO INPUT

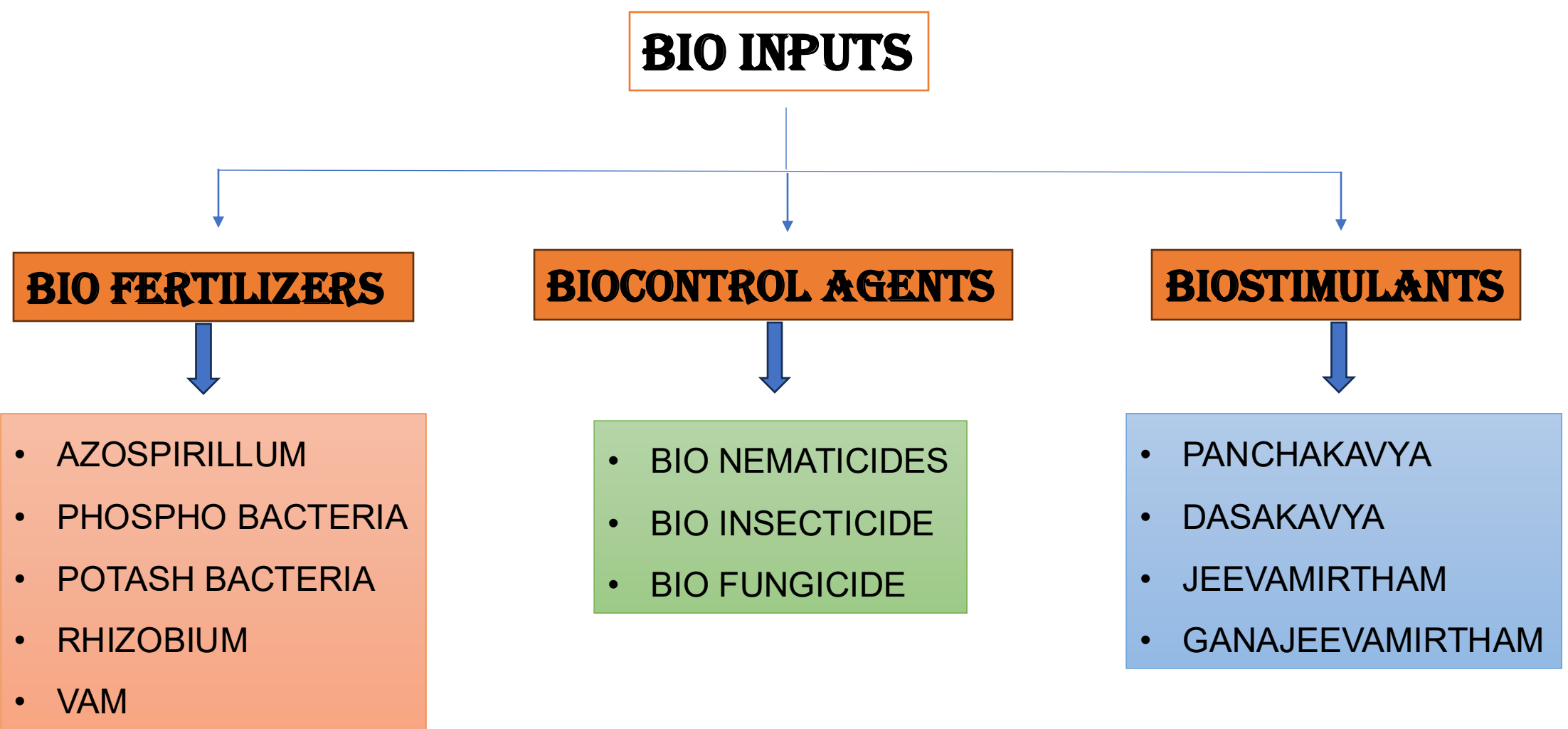
PREPARATION



BIO INPUTS

- Bio inputs are products made from beneficial organisms such as bacteria, fungi, viruses, and insects, or natural extracts obtained from plants, that can be used in agricultural production to control pests, or promote the development of plants.
- They are products that *do not leave toxic residues in the environment* and whose use does not imply risks to the health of farmers and consumers.

BIO INPUTS



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graph TD; A[BIO INPUTS] --> B[BIO FERTILIZERS]; A --> C[BIOCONTROL AGENTS]; A --> D[BIOSTIMULANTS]; B --> E["• AZOSPIRILLUM<br/>• PHOSPHO BACTERIA<br/>• POTASH BACTERIA<br/>• RHIZOBIUM<br/>• VAM"]; C --> F["• BIO NEMATOCIDES<br/>• BIO INSECTICIDE<br/>• BIO FUNGICIDE"]; D --> G["• PANCHAKAVYA<br/>• DASAKAVYA<br/>• JEEVAMIRTHAM<br/>• GANAJEEVAMIRTHAM"];
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The diagram is a hierarchical flowchart. At the top is a box labeled 'BIO INPUTS'. A horizontal line with three downward-pointing arrows connects it to three boxes below: 'BIO FERTILIZERS', 'BIOCONTROL AGENTS', and 'BIOSTIMULANTS'. Each of these three boxes has a thick downward-pointing arrow leading to a list of items. The 'BIO FERTILIZERS' list is in an orange box, 'BIOCONTROL AGENTS' is in a green box, and 'BIOSTIMULANTS' is in a blue box.

BIO FERTILIZERS

- AZOSPIRILLUM
- PHOSPHO BACTERIA
- POTASH BACTERIA
- RHIZOBIUM
- VAM

BIOCONTROL AGENTS

- BIO NEMATOCIDES
- BIO INSECTICIDE
- BIO FUNGICIDE

BIOSTIMULANTS

- PANCHAKAVYA
- DASAKAVYA
- JEEVAMIRTHAM
- GANAJEEVAMIRTHAM

PANCHAGAVYA

- An organic product has the potential to play the role of promoting growth and providing immunity in plant system.

Panchagavya consists of nine products *viz.*,

- COW DUNG,
- COW URINE,
- MILK,
- CURD,
- JAGGERY,
- GHEE,
- BANANA,
- TENDER COCONUT
- WATER

Cow dung – 7 Kg



Ghee – 1 Kg



After 3 days



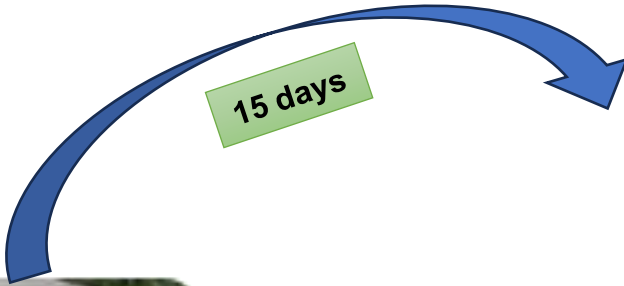
Cow urine – 10 Lt



Water – 10 Lt



15 days



PANCHAGAVYA

After 15 days



Milk – 3 Lt



Curd – 2 Lt



Jaggery – 3 Kg



Tender
Coconut
water – 3 Lt



Banana – 12 Nos

DOSAGE : 3% SOLUTION

BENEFITS

- Enhances Flowering
- Yield enhancement by 18% and in few cases like Cucumber, the yield is doubled
- Wholesome vegetables with shiny and appealing skin
- Extended shelf life

Pre flowering phase	: Once in 15 days, two sprays depending upon duration of crops
Flowering and pod setting stage	: Once in 10 days, two sprays
Fruit/Pod maturation stage	: Once during pod maturation

DASAGAVYA

- Dasagavya, is an organic preparation made from ten products in the form of panchagavya and certain plant extracts.
- “Gavya” is th term given to cow’s products comprising of cow dung, cow urine, cow’s milk, curd and ghee, which have miraculous effects on plant growth when suitably mixed.

Leucas aspera



Lantana camera



Datura metal



Azadirachta indica



Calotrophis



Pongamia pinnata



METHOD OF PREPARATION

- The plant extracts are prepared by separately soaking the foliage in cow urine in 1:1 ratio (1 kg chopped leaves in 1 litre cow urine) for ten days.
- The filtered extracts of all the plants are then added @ 1 litre each to 5 litre of the panchagavya solution.
- The mixture is kept for 25 days and stirred well, meanwhile, to ensure thorough mixing of panchagavya and the plant extracts.

Mode of use

- The Dasagavya solution is filtered to avoid clogging of sprayer nozzles and is recommended as foliar spray at 3 % concentration.
- Soaking of seeds or dipping the roots of seedlings in 3 % solution of dasagavya for 20 minutes before planting enhances seed germination and root development.

Periodicity

Weekly sprays during crop growth for all vegetables and plantation crops.

Advantages

- Increases growth, yield and quality of the crops
- Controls pests like aphids, thrips, mites and other sucking pests
- Controls diseases like leaf spot, leaf blight, powdery mildew etc.

JEEVAMIRTHAM

- Jeevamrutham is an organic fertilizer and a great replacement of chemical fertilizers.
- It is a very good source of biomass, natural carbon, nitrogen, phosphorous, calcium and other nutrients which are essential for plant growth and development.
- Jeevamrutham is made of two words – Jeeva and Amrutham .Both are derived from Sanskrit. The word “Jeeva” means a living being and “Amrutham” means the elixir(medicine) upto extending life.
- It is the best culture to increase the count of microorganisms.

Types of Jeevamrutham

- The liquid state of Jeevamrutham
- The semi-solid state of Jeevamrutham
- Dry Jeevamrutham (Ghana jeevamrutham)

கோமியம்

மாவு

சாணம்

ஜீவாமிர்தம்
தயாரிக்கும்
முறை!!

மண்

நாட்டுச்சர்க்கரை



LIQUID STATE OF JEEVAMRUTHAM

- 1kg dung
- 1 litre urine
- 200 g jaggery
- 200g flour
- 100 g soil from the same field mix them in a big tank
- made to 20 litres with water
- incubation under shade for 5 days
- Vigorous stirring for 10–15 minutes three times a day with a wooden stick.

First spray – One month after seed sowing or transplanting of seedling. Take 100-liter water to add 5 liters of filtered Jeevamurtham.

Second spray – 21 days after the first spray. Here 150 liters of water plus 10 liters of filtered Jeevamrutham.

Third spray – 21 days after the second spray, take the third spray. 200 liters of water plus 20 liters of filtered Jeevamrutham.

SEMI-SOLID STATE JEEVAMRUTHAM

Requirements for semi solid jeevamrutham

- 100kg desi cow dung
- 5 litre urine
- 1kg jaggery
- 1kg pulse
- one handful of soil from the same land.

Preparation -Mix all of them with a small amount of water. Make the small balls out of the mixture. Keep these balls in full sunlight to dry them. Now, these dried balls can be kept near the mouth of a dripper or near the sprinkler. When the waterfalls on the semi-solid Jeevamrutham, the microbes get activated again.

DRY JEEVAMRUTHAM (GHANA JEEVAMRUTHAM)

- Spread 200kg of cow dung on ground uniformly in the form of layer
- Add 20 liters of liquid jeevamrutham on it and mix it.
- Now, make a heap of treated cow dung and cover it using jute bag for 48 hours allow it for fermentation then spread on the floor
- Dry in the sunlight. After drying is completed, store it in jute bags in the room. Air should be flowing. You can store Ghana jeevamrutham for 6 months

Application –

At the sowing period, use the 200kg Ghana Jeevamrutham per acre.

Again during the flowering period of the crop, add 50kg of Ghana Jeevamrutham in between two crop lines on the soil per acre.

BENEFITS

- It helps the soil to activate their available nutrients, microorganisms to make them available for the crop sown in that particular area. It increases the count of earthworms in soil which is beneficial for soil fertility.
- Ensure higher yield by enhancing the availability of nutrients through faster decomposition of bulky organic manures by boosting the microbial activity
- Less cost
- Easily adoptable to poor farmers
- Increase the crop productivity
- Environmental safety
- Successful crop production

A close-up photograph of a tea plant with vibrant green, serrated leaves. The background is a soft-focus field of similar tea plants under bright, warm sunlight, creating a glowing effect.

THANK YOU