



11

PREPARING JEEVAMRITA

The agricultural activities were in the centre of Indian economy in the ancient period. Even today it is equally important and still a large number of people are directly or indirectly involved with the industries associated with the agriculture. The increasing population also increases the demand of agriculture products. This pressurises the Indian agriculture industries to produce more farm products to meet the increasing needs. Due to this we have started to use more chemical fertilizers which are harmful for human health and also decrease soil fertility. Therefore, use of organic fertilizers become more important.

In this lessons, we will study about Jeevamrita/jeevamrutha, which is a fermented microbial culture.



OBJECTIVES

After studying this lesson, you will be able to:

- define the Jeevamrita;
- explain the importance of Jeevamrita and



- describe the process of preparing Jeevamrita
- to the agricultural field

11.1 WHAT IS JEEVAMRITA

Jeevamrita/jeevamrutha is a fermented microbial culture. In simple words, we can say that it's a combination of some organic components in water which is fertile and useful for plants. It provides nutrients, but most importantly, acts as a catalytic agent that promotes the activity of microorganisms in the soil. Jeevamrita also increases the earthworm activity in the soil. The earthworms make the land porous; which helps the easy penetration of air and sunlight. This increases the nitrogen percentage in the soil and also helps to increase some helpful bacteria.

In lessons of Vocational Skills at Level A, we have studied about the importance of cow at our home. Cow gives us milk, which is used in various ways. The Cowdung and urine are also equally important, as they are used as fertilizers for agriculture. After receiving the cowdung, it takes 48 hours for fermentation process. The aerobic (lives in the presence of oxygen) and anaerobic bacteria (do not require oxygen to live) are found in the cow dung and urine. It provides suitable conditions for bacteria to grow. The foods given to cows are not fully digested in her stomach. Some of the organic ingredients like pulse, flour, others organic foods are still found in cowdung and urine. This is the food for bacteria. They eat these organic ingredients and grow

very fast. The cowdung, urine and other bio products are used in preparing Jeevamrita. Let's study the process of preparing Jeevamrita in detail.



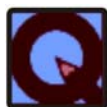
11.2 ADVANTAGES OF JEEVAMRITA

The concept of Jeevamrita comes from the Zero Budget Natural Farming. The Zero Budget Natural Farming was initially started in the areas of Karnataka and Maharashtra. The practitioners of Zero Budget Natural Farming used Jeevamrita, Beejamrita, Achhadana (Mulching) and Whapasa (Moisture). They are called as the four pillars of Zero Budget Natural Farming. Jeevamrita is used for a longer period and given with water. It is very important for improving soils fertility. It has many advantages:

- It acts as an agent to increase the microbial count and friendly bacteria in the soil.
- As the preparation time is only 4-5 days, it can be used effectively and frequently for a longer period of time.
- Jeevamrita helps to increase the earthworm count in the soil. Earthworm makes the soil porous which has a higher water holding capacity. It also improves aeration, bring up minerals from deep in the subsurface that are often in short supply in surface layers.
- If used consistently it can eradicate the need for chemical fertilizers completely.



- It improves the PH level of the soil.
- Suitable for all crops and increases the yield and cuts down on entire expenses of Chemical fertilizers.



INTEXT QUESTIONS 11.1

Fill in the blanks

1. Jeevamrita is a _____ microbial culture.
2. Jeevamrita increases the _____ activity in the soil.
3. They eat these _____ ingredients and grow very fast.
4. They are called as the _____ of Zero Budget Natural Farming.
5. It improves the _____ level of the soil.

11.3 HOW TO PREPARE JEEVAMRITA?

Cowdung and urine are main component for preparing Jeevamrita. A handful of undisturbed soil is also added to the preparation, as inoculate of native species of microbes and organisms. Jeevamrita also helps to prevent fungal and bacterial plant diseases. Under, Zero Budget Natural Farming, it is suggested to use Jeevamrutha continuously for three years. Later that, the system becomes self-sustaining. It will not require more Jeevamrita and can provide all important component naturally.



We have studied about the advantages of Jeevamrita yet. Let's know the method of preparing Jeevamrita step by step:

- Place 200 liters of water in a barrel.
- Add 10 Kg fresh local cow dung.
- Add 10 liters aged cow urine.
- Add 2 Kg of Jaggery (a local type of brown sugar).
- 2 Kg of pulse flour and a handful of soil from the bund of the farm.
- Stir the solution well and let it ferment for 48 hours in the shade.
- Now jeevamrita is ready for application.

11.4 HOW TO USE JEEVAMRITA?

You can prepare Jeevamrita by using this method. Now it's important to know that how to use the Jeevamrita, so that it can be effective and useful. First of all it's important to identify the area of land to be covered for using Jeevamrita. As per the standard use, 200 liters of Jeevamrita is sufficient for one acre of land. Jeevamrita can be used twice a month. The best way to use Jeevamrita is to mix with the irrigation water. You can also apply it as a 10% foliar spray.



Notes



INTEXT QUESTIONS 11.2

Fill in the blanks

1. _____ and _____ are main component for preparing Jeevamrita.
2. Place _____ of water in a barrel.
3. 200 liters of Jeevamrita is sufficient for _____.
4. Jeevamrita can be used _____ a month.
5. You can also apply it as a 10% _____.



WHAT HAVE YOU LEARNT

- Jeevamrita/jeevamrutha is a fermented microbial culture.
- It provides nutrients.
- Cow gives us milk, which is used in various ways.
- The Cowdung and urine are also equally important, as they are used as fertilizers for agriculture.
- The concept of Jeevamrita comes from the Zero Budget Natural Farming.
- The practitioners of Zero Budget Natural Farming used Jeevamrita, Beejamrita, Achhadana (Mulching) and Whapasa (Moisture).
- They are called as the four pillars of Zero Budget Natural Farming.



- As the preparation time is only 4-5 days, it can be used effectively and frequently for a longer period of time.
- Cowdung and urine are main component for preparing Jeevamrita.
- A handful of undisturbed soil is also added to the preparation.
- The best way to use Jeevamrita is to mix with the irrigation water.
- You can also apply it as a 10% foliar spray.



TERMINAL QUESTIONS

1. What is Jeevamrita?
2. In which states, Zero Budget Natural Farming was started first time?
3. What are the four pillars of Zero Budget Natural Farming?
4. Explain the steps for the preparation of Jeevamrita?
5. How we can use Jeevamrita?



ANSWERS TO INTEXT QUESTIONS

11.1

1. fermented
2. earthworm
3. organic



11.2

4. four pillars
5. PH

1. Cowdung, urine
2. 200 liters
3. one acre of land
4. twice
5. foliar spray