

Jeevamrit: A Natural Growth Booster for Crops

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The importance of natural farming practices is increasing as farmers have realized the benefits in terms of soil fertility, soil health and sustainable productivity. Farmers are well aware of the use of Jeevamrit liquid organic manure as organic farming practices, which play a vital role in promoting crop

growth and yield. There are many practices adopted in natural farming to achieve the goal of successful crop production. Most of them have been developed by the farmers themselves. One such practice whose main objective is to enrich the soil micro-flora is the use of Jeevamrit.

What is Jeevamrit?

Jeevamrit is a fermented mixture of cow dung, cow urine, jaggery, pulses, and water. Jeevamrit is made up



of two words, “Jeeva” which refers to organisms and *Amrut* which refers to nectar. Jeevamrit is basically the “nectar of life”. It plays a special role in improving the nutritional power of the soil and promoting the

growth of healthy plants. Jeevamrit is a storehouse of beneficial microorganisms. Jeevamrit plays an important role in providing essential elements to the plants. It is a catalytic agent to promote natural activities in the soil. Jeevamrit can be made very easily and as per requirement. Jeevamrit is a liquid organic manure that is a good source of natural carbon and

biomass which contains essential micronutrients for crops. Jeevamrit is a type of organic fertilizer and soil modifier prepared using natural elements and beneficial microorganisms.

According to Dr. Subhash Palekar, Jeevamrit is a liquid solution made from cow dung, cow urine and local ingredients like pulses and old tree soil which, increase the number of microorganisms in the soil.

Jeevamrit is not only used as organic fertilizer but also used bio- starter which provide beneficial bacteria to establish a healthy biological solution. Application of Jeevamrit to the soil promotes immense biological activity in the soil and makes the nutrients available to the crop. It provides a good environment for the beneficial microbes. Many scientific research proved that application of Jeevamrit to the soil improve the fertility of the soil significantly. Jeevamrit also contains a huge microbial load, which increases manifold and acts as a soil tonic. These beneficial microorganisms increase the availability of essential nutrients to the plant better growth development and protection. Beside this many scientific studies reported that Jeevamrit also help in protect the plant from various disease.

The Components of Jeevamrit

Cow Dung: An essential component of Jeevamrit, cow dung is abundant in healthy microorganisms. It improves the soil's microbial life, which is crucial for the cycling of nutrients.

Cow Urine: Well-known for having high levels of potassium, phosphorus, and nitrogen, cow urine serves as a natural insecticide and fertilizer for plants.

Jaggery: This sweetener contributes carbon, which is essential for the microbial development that improves soil fertility.

Pulses: By introducing nitrogen-fixing bacteria into the soil, pulses such as gram or peas increase the soil's nutrient content.

Water: These ingredients can ferment and promote the growth of helpful microorganisms when they are dissolved in water, the all-purpose solvent.

Old Tree Soil: Old tree soil is mixed in Jeevamrit to supply beneficial microbes, which multiply during fermentation and make it more effective for soil fertility and plant health.

Method of Making Jeevamrit

The following ingredients are required to make Jeevamrit:

- A plastic drum of 200 liters capacity
- 10 kg cow dung of a local cow
- 10 liters cow urine of a local cow
- 2 kg jaggery
- 1.5-2 kg gram flour (moong urad)
- 500 gm of old tree soil like (peepal or banyan)
- 180 liters water

Put the above ingredients in a plastic drum and mix. Keep the container of the solution in the shade and stir it for 2 minutes with a wooden stick in the clockwise direction every morning and evening. The drum is covered with a jute sack so that no insects can enter it from outside. Allow the mixture to ferment for 48-72 hours. It is important to stir it once or twice a day to facilitate proper fermentation. Once fermented, the Jeevamrit is ready to be applied to the soil, either by drenching the soil or spraying on the crops.

Method of Use of Jeevamrit

Jeevamrit is generally used in the following ways:

1. With irrigation (Mix 100-200 liters of Jeevamrit per acre with the irrigation water or apply directly to the soil during irrigation)
2. Foliar spray (Dilute Jeevamrit to a concentration of 5-10% with water and spray it on the plants at regular intervals.)

Benefits of Jeevamrit

1. Improve soil health

Soil health depends on the physical, chemical and biological properties of soil. Jeevamrit these soil properties in many ways which helps to improve crop production in sustainable manner.

(a)Physical Properties of Soil

Jeevamrit improves soil physical properties by increasing porosity, aeration, and water retention by the addition of beneficial microorganisms that breakdown organic matter and improve soil structure. Increased organic matter and enhanced soil structure create a more stable soil that resists erosion and compaction.

(b) Chemical Properties of Soil

Jeevamrit improves soil chemical properties by providing a rich source of nutrients, stimulating microorganisms that fix nitrogen and solubilize nutrients, increasing organic carbon content, and maximizing pH. This leads in higher soil fertility, a more balanced supply of macro and micronutrients, and improved cation exchange capacity.

(c)Biological Properties of Soil

Jeevamrit improves soil biological properties by introducing a varied population of beneficial

microorganisms, increasing soil organic matter through mineralization, improving soil enzymes, and increasing earthworm activity. These beneficial bacteria not only improve nutrient availability and nurture a healthy, rich soil environment for sustainable agriculture, but they also aid in nitrogen fixation and phosphorus solubilisation.

2. Enhance Crop Productivity As Growth Promoter

Jeevamrit acts as a natural growth stimulant by giving essential nutrients and increasing microbial activity in the soil. It promotes root growth, increases nutrient uptake, and fosters a healthy soil environment, resulting in higher crop output and quality in vegetables such as tomato, brinjal, chilli, okra, and cucumber.

3. Resistance To Diseases and Pests

Jeevamrit boosts the natural immunity of plants by promoting beneficial microbial activity in the soil. The diverse population of microbes suppresses harmful pathogens, reduces the chances of pest and disease outbreaks, and strengthens the plant's defense system.

4. No dependency on chemical

Jeevamrit functions as a natural source of nutrients and growth-promoting bacteria, reducing the need for chemical fertilizers and pesticides. Its regular application increases soil fertility, promotes plant health, and naturally controls pests and diseases. As a result, farmers become self-sufficient by preparing it with locally available ingredients, reducing the need for expensive chemical inputs.

5. Eco Friendly

Jeevamrit is fully eco-friendly because it is made with natural ingredients including cow dung, cow urine, jaggery, pulse flour, and soil. Unlike chemical fertilizers and pesticides, it leaves no toxic remains in the land, water, or air.

6. Sustainable And Cost Effective

Jeevamrit is a sustainable and cost-effective bio-fertilizer since it is prepared from locally available, low-cost materials such as cow dung, cow urine, jaggery, and pulse flour. Its continuous use improves soil fertility, enhances crop yield, and reduces the long-term dependence on expensive chemical inputs. This makes farming more economical while promoting sustainable agricultural practices that conserve resources and maintain soil health.

7. Toxic Free Produce

Jeevamrit ensures toxin-free produce by eliminating the usage of synthetic fertilizers and chemical pesticides, which leave dangerous residues in crops. The naturally prepared solution enriches soil bacteria

while providing balanced nutrients to plants, resulting in safe, healthy, residue-free food. These crops are not only good for human consumption, but they also promote environmental and ecological safety.

Conclusion

By using Jeevamrit, farmers can produce better quality crops because it improves the biological, physical, and chemical conditions of the soil. It also helps reduce the harmful effects of chemical fertilizers on human health. When soil fertility increases, the main reason is the rise in the number of earthworms and microorganisms in the soil. This increase mostly comes from the nutrients found in cow dung and cow urine of indigenous cows. Although cow urine is not available in large amounts, farmers prepare Jeevamrit by mixing cow dung and urine with jaggery (gur) and gram flour (besan). These ingredients act like food for the microbes, and they multiply very quickly, which helps make the soil more fertile.

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