
Vermicompost

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Earthworm manure or vermicompost is an excellent bio fertilizer rich in nutrition. This earthworm is made by decomposing vegetation and food waste etc. by insects etc. Vermicompost does not smell and fly and mosquitoes do not grow and the environment is not polluted. By keeping the temperature controlled, the bacteria remain active and active. Vermicompost is ready within one to two and a half months. It contains 2.5 to 3% nitrogen, 1.5 to 2% sulfur and 1.5 to 2% potash.

Features of earthworm manure

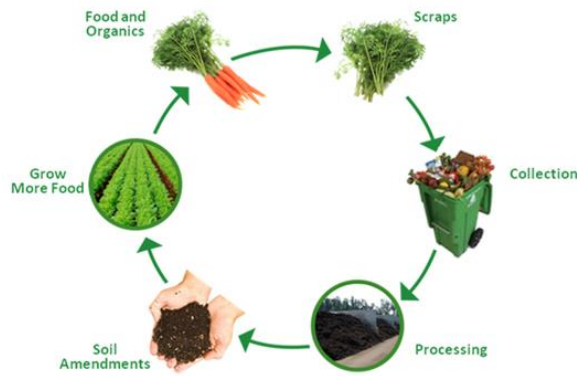
This manure does not smell, and flies, mosquitoes also do not grow, which keeps the environment healthy. It gives nitrogen 2 to 3 percent, phosphorus 1 to 2 percent, potash 1 to 2 percent along with micronutrients.

- It takes one to one and a half months after the process is established to prepare this fertilizer.

- 100 square feet nursery beds are sufficient to get one ton of fertilizer every month.
- Only 2 tonnes per hectare of earthworm fertilizer is required.

Introduction

Vermicompost (earthworm manure) produced by putting food waste in vermicester is called friend of earthworm farmers and 'intestine of land'. It spreads the sensory material (organic matter), humus and soil together and spreads in other layers inside the ground, this causes the ground to be polished and the air is increased, and the capacity for water retention is also increased. Chemical action and microbial action in the stomach of earthworms, This increases the availability of nitrogen, sphur (phosphorus), potash, calcium and other microscopic elements found in the soil. It has been found that nitrogen in the soil increases 7 times, phosphorus 11 times and potash 14 times.



Earthworms alone are not only helpful in improving the land and increasing productivity, but their work is also important with microbial, concentrated substances, humus. Keturms are the organisms that eat sensory substances, and soil, which fall under the category of Profropagus.

There are two types of earthworms in this class: -

1. **Detritivores** - Detritivores are found on the upper surface of the ground. These are red chalky color, flat tail, their main use is in making manure. These humus formers are called Earthworms.
2. **Geophagus** - The live pieces of G. phagus are found inside the ground. These colors remain dull. They make a mixture of humus and soil and make ground.

Preparation of method of Earthworm manure

1. It is necessary to separate the pieces of glass, stone, metal from the waste from which manure is to be prepared.

2. Earthworm is given to eat half the decomposed concentrated substance.
3. Prepare nursery beds above the ground, make the beds lightly beaten with wood and make them firm and flat.
4. On this, two inches thick surface of easily decomposable sensory material (feminine leaves, sugarcane leaves, sorghum stalks and others) should be made.
5. 2-3 inches of cooked cow dung manure should be applied on it.
6. After putting Earthworms, a surface of cow dung, leaf etc. should be made 6 to 8 inches above it. Now cover it with a thick bandage.
7. Sprinkle water on the bandage bandage daily as per the need, so that 45 to 50 percent moisture remains. Due to excess moisture / wetness, air will get blocked and microorganisms and earthworms do not work. Due to excess moisture / wetness, air will get blocked and micro bacteria and earthworms will not be able to function and earthworms can die.
8. Nursery beds should have a temperature of 25 to 30 degrees centigrade.
9. If the compost of cow dung has become hard or loose in the nursery bed, then it should be broken by hand, once a week, the garbage of the nursery bed should be up and down.

10. Small earthworms will start appearing after 30 days.
11. After 3-4 foldings, keep it lightly up and down after 2-3 days and keep the moisture.
12. Stop spraying water after 42 days.
13. Manure is prepared by this method in one and a half month, it looks like tea powder and it has a smell like soil.
14. Take out the manure and make small piles of manure. So that the sand should remain in the lower surface of the compost.
15. Separate the manure by hand. Do not use Gati, Kudali, Khurpi etc.
16. On the 31st day, lay a 2-inch-thick fold of garbage and waste on this bed and moisten it.
17. Earthworms will have grown enough to repeat the same process with half earthworms and make manure by making new nursery beds with the remaining half. Thus after every 50-60 days one or two new beds can be made according to the number of earthworms and fertilizer can be made in the required quantity.
18. It is necessary to make a nursery shed to protect the nursery from strong sunlight and rain.

Other uses

1. Medicines are prepared from precious amino acids and enzymes obtained from earthworms.

2. Earthworms are used as a food item for birds, pets, chickens and fishes.
3. It is used in the preparation of Ayurvedic medicines.
4. Powders, lipsticks, ointments, etc., are used to make such cosmetics.
5. The dried powder of earthworm contains 60 to 65 percent protein, which is used in food.

Importance of earthworm manure

1. It not only increases the fertility, ventilation of the land, but also increases the water's water absorption capacity.
2. Weeds grow less in vermi compost land and diseases are less in plants.
3. The exchange of ions between plants and land increases.
4. Farms using vermicompost can increase the production of individual crops by up to 25–300%.
5. The amount of nutrients in the soil increases.
6. Soil containing vermicompost has a ratio of nitrogen, phosphorus, potash at 5: 8: 11, so crops get adequate nutrients easily.
7. The faeces of earthworms have peritrapic membranes, which prevent the ground from evaporation by sticking dust particles from the ground.
8. 85% of the body of earthworms is made up of water. Therefore,



even in drought conditions, they can survive despite their body water being low and provide nitrogen to the land after death.

9. Vermi compost increases the organic matter in the soil and provides continuity to the organic activity in the soil.
10. By using it, the land becomes fertile and friable.
11. It destroys termites and other harmful pests in the field. This reduces the cost of pesticides.
12. Nutrient availability remains for up to 2-3 crops after its use.
13. Due to the activation of earthworms in the soil, proper conditions are maintained for the roots of the plants, which leads to their proper growth.
14. It is prepared from garbage, dung and crop residues, which do not pollute the environment.
15. Its use reduces the cost of irrigation.
16. The fertility of the soil that is decreasing with the use of

chemical fertilizers continuously can be increased by its use.

17. Its use improves the quality of fruits, vegetables and grains, giving the farmer a better price for the produce.

18. The microorganisms found in earthworms balance the pH of the soil. Consumers get nutritious food.

19. Its use in rural areas provides employment opportunities. It is ready in a very short time.

20. Earthworms bring the soil below to make it perfect.

Precautions in the use of earthworm manure.

1. Do not use chemical fertilizers and pesticides after using earthworm manure in the ground.
2. Earthworms should be given regular good quality concentrated substances.
3. Do not use chemical fertilizers and pesticides after using earthworm manure in the ground.
4. Earthworms should be given regular good quality concentrated substances.
5. Due to getting adequate amount of food and moisture, earthworms remain active.