

MGVC ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL -586212



DEPARTMENT OF ZOOLOGY

A Project Work
CERTIFICATE

Register No: 51827608

Class: BSc VI Sem

This is to certify that Mr./Miss. Aishwarya. Sajjan
of BSc VIth Semester, MGVC College Muddebihal has satisfactorily
completed the Project work on Vermiculture under our supervision
during the year 2020-2021

Staff Member In charge

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Examiners: 1)

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Vermiculture Field

M.G.V.C. Arts, Commerce
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INTRODUCTION

Vermiculture is the method of rearing earthworms. Earthworms are commonly called "natures plough man" or "farmers friend". Because of their burrowing nature & contribution towards soil fertility.

Vermiculture is defined as the scientific method of rearing & maintaining selected species of earthworms under controlled condition

epigeic earth worms used for culturing are

They live above the soil and do not make any burrow and prefer partially decomposed material as food. They are small in size and are heavily pigmented. They show fast growth, high reproductive and regeneration rate. The species are below noted.

1. *Eurdilus eugeniae*.(African night crawler)
2. *Eisenia fetida*.(Red worm)

These varieties of earthworms, epigeics have been generally used.

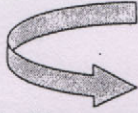
Several species of epigeic worms occur naturally in our soil.

Eudrilus eugeniae



preparation of compost bedding

- Inoculation is the process of introducing worms into the compost bedding. Once the bedding is prepared about 80-100 locally collected epigeic & anecic earthworms could be inoculated.
- After inoculated, small lumps of cow dung are scattered over the soil. The entire unit has to be kept moist by spraying water, so as to maintain the moisture content between , 30 to 40%. It has to be covered either by broad leaves or by coconut leaves or old jute bags. This prevents birds from disturbing the vermibed. (plastic covering should be avoided as it traps heat and gases)
- The entire unit has to be kept moist by watering. By the end of the month juvenile earth worms will be noticed.
- After a month, organic waste available from local resources like kitchen waste, waste from canteen & restaurants, market yard, agro waste etc should be spread twice a week over the bedding. Spreading should be done after removing the large leaves or jute bag kept for protection. The spread should not exceed 5cm in thickness for each, application. occasionally, the waste should be turned over without disturbing the bed.
- The worms feed on the organic matter .The organic matter in their digestive system gets mixed with the intestinal contents, the digested matter gets absorbed while undigested material pass out as mud pellets called worm-casts. The worm casts thus formed forms the vermicompost.
- Watering is continued & is stopped forty-second, day. This compels the worms to move into the lower-end of the vermi bed & facilitates harvesting .



Harvesting



- ❖ Harvesting is the process of collecting the vermicompost. When the vermicompost is ready for use the top layer appears brownish in color with granular appearance.
- ❖ Take out the mulch layer & expose the vermibed to out environment.
- ❖ Stop watering the vermibed for 3-4 days.
- ❖ Collect the vermicompost in number of small hips & leave in the vermibed itself.
- ❖ Next day the vermicompost is harvested & seed.
- ❖ Vermicompost is shade dried.
- ❖ Packed in plastic coated bags.

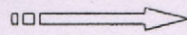


vermiwash as fertilizer



Their excess water pured into the pit washes the earth worm body & skin & the water collected in pot is called vermiwash .At about 45 days we get vermiwash. Vermiwash is a pale yellow colored transparent coelomic fluid obtained from earthworms. It contains, micronutrients from the soil, along with the mucus, secretion & excretory materials of the worms. It's believed to contain antibiotic & antiviral property. It's generally used as fertilizer in aquatic productivity.

uses of vermiwash



- It induces flowering.
- It induces plant growth.
- It induces yield.
- It gives protection against pest & diseases.