

Course Code	Course Name	Credits
26ZY956	EARTHWORMS AND ORGANIC MANURE	04

Course Objectives

- To understand the role of earthworms in organic manure production.
- To study vermicomposting and organic waste recycling.
- To develop knowledge on soil fertility management.
- To understand sustainable agricultural practices.
- To enhance awareness on eco-friendly manure production.

Learning Outcomes

- Explain the importance of earthworms in manure production.
- Identify species used in vermicomposting.
- Demonstrate preparation of organic manure.
- Analyze the role of organic manure in agriculture.
- Apply vermiculture techniques in sustainable farming.

Unit 1 - Introduction to Earthworms (12 Hrs.)

Classification and biology of earthworms; ecological importance.

Unit 2 - Earthworms and Soil Fertility (12 Hrs.)

Soil aeration and nutrient cycling; decomposition of organic wastes.

Unit 3 - Organic Manure Production (12 Hrs.)

Vermicompost preparation; vermicbeds and maintenance; harvesting techniques.

Unit 4 - Applications in Agriculture (12 Hrs.)

Use of vermicompost and vermiwash; organic farming practices.

Unit 5 - Commercial Production and Management (12 Hrs.)

Commercial vermiculture; packaging and marketing; future prospects.

Reference Books:

1. Edwards, C.A. (2016). Biology of Earthworms. Chapman and Hall.
2. Kale, R.D. (2017). Vermicomposting. Orient Longman.
3. Ismail, S.A. (2010). The Earthworm Book. Orient India Press.
4. Dash, M.C. (2019). Ecology and Environmental Biology. Tata McGraw Hill.
5. Satchell, J.E. (2017). Earthworm Ecology. Springer.

Websites and eLearning Sources:

1. <https://www.agrifarming.in/>
2. <https://www.biologydiscussion.com/>
3. <https://www.easybiologyclass.com/>

