

DETAILED SYLLABUS OF 2nd SEMESTER(FYUGP)

Course Code: SEC 239

Title of the Course: Vermicomposting Techniques

Nature of the Course: Skill Enhancement Course (SEC)

End Semester: 80 Marks (60T+20P)

In Semester: 20 Marks

Total Credits: 03

Aims & Objectives:

1. Students will learn to prepare compost and know about the decomposing process.
2. To generate Self-employment.
3. To create interest in participants towards organic farming.
4. The course can help to maintain the environment pollution free
5. This course will help the students to learn about the biodiversity of local earthworms.

Outcome of the Course & Future Prospects:

1. Students can construct their own compost farm and thereby can get monthly income of Rs.9000- Rs10000.
2. Students/ farmers by using vermicompost in their field can increase the crop yield.
3. Students residing in cities can produce vermicompost in small scale for garden.
4. Recycling of garbage has become necessary in order to sustain our health and environment and therefore it will help to keep our environment clean.

SYLLABUS

UNIT I BASICS OF VERMICULTURE	
1	Introduction to vermiculture: Definition, meaning, history, economic importance, their value in maintenance of soil structure, role as four R's of Recycling - Reduce, Reuse, Recycle, Restore
2	Choosing the right worm. Useful species of Earthworms - Local and Exotic species. Complementary activities of Auto evaluation
3	The matter and humus cycle. Transformation process of organic matter.
UNIT – II <i>Eisenia fetida</i>- Biology	
4	Taxonomy, Anatomy and Physiology of <i>Eisenia fetida</i> . Vital cycle of <i>Eisenia fetida</i> : alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors)
UNIT – III <i>Eudrilus eugineae</i>- Biology	
5	Taxonomy, Anatomy and Physiology of <i>Eudrilus eugineae</i> . Vital cycle of <i>Eudrilus eugineae</i> : alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors)
UNIT – III VERMICOMPOST TECHNOLOGY	
6	Small Scale Earthworm farming for home gardens Earthworm compost for home gardens. Commercial scale vermicomposting, harvesting and processing. Packaging, transport and storage of Vermicomposts.
7	Nutritional Composition of Vermicompost for plants, comparison with other fertilizer
8	Vermiwash collection, composition & use
9	Enemies of Earthworms, Sickness and worm's enemies. Frequent problems of earthworms and their remedies