

DEPARTMENT OF BOTANY

VALUE ADDED COURSE

ORGANIC FARMING

(Theory-15 hrs and Practical-15 hrs)

Course code - UGBOTVA23

(For IInd Year BSc Botany students)

COURSE OBJECTIVES

- To create awareness about organic farming.
- To equip learners with the knowledge and skills necessary to practice sustainable agriculture and the production of healthy, organic food.
- To introduce the concept of organic ecosystem and learn about biological magnification & its significance in present day scenario.

Theory (15 hrs)

Module-1: Introduction to organic farming (3 hrs)

Organic farming - concept, characteristics, significance, organic ecosystem, scope of organic farming (National, State and Regional level).

Module 2 Organic Farm Management (3 hrs)

Preparation of seed bed, manuring, sowing, watering and raising of seedling.

Module 3 Soil characteristics (3 hrs)

Role of soil in organic farming; Soil factors affecting plant growth: heat, water, humidity, pH and nutrition

Module 4 Plant nutrition (3 hrs)

Green manure- Method of composting, benefits & limitations; soil microorganisms and mycorrhiza and their significance

Module 5 Crop Management (3 hrs)

Cultural, Biological and Mechanical methods; Integrated Pest Management (IPM); Crop rotation: need and benefits.

Practical (15 hrs)

1. Visit to organic farm to study the various components, identification and utilization of organic products.
2. Preparation of organic compost - Over ground compost, Pit compost, Vermi compost.
5. Soil analysis: pH determination.
6. Seed bed preparation, seed selection and seedling preparation.
7. Method of application of different types of organic fertilizers and green manure.
9. A vegetable crop's growth and cultivation until harvest.

COURSE OUTCOME

1. Understanding organic principles: Students will understand various principles, need and prospects of organic farming including the importance of sustainability, biodiversity and ecological balance.

2. Practical skill: Students will gain hands on experience through field work, farm visits or practical exercises to apply their knowledge in a real-world setting.
3. Soil health and fertility: Learners will explore the significance of soil health in organic farming and various methods to enhance soil fertility through composting and crop rotation.