

CERTIFICATE COURSE

DEPARTMENT OF BOTANY

COURSE NAME: LFCCBOT02 Vegetable Gardening and Mushroom Cultivation

Objectives:

- 1.To equip the students with the skill of vermicomposting, mushroom cultivation and preparation of kitchen garden.

Duration : 1 year

Syllabus:

SEMESTER -1

UNIT-I

Definition and scope of floriculture, importance of vegetables in human diet, classification of vegetable crops, types of vegetable garden, location and site For vegetable garden, climate and soils for vegetables, crop rotation, fertilizers- different types and their application (4 hours)

UNIT-II

Growing vegetables-transplantation, direct sown, irrigation, manuring of vegetable crops, intercultural operations in vegetable crops. Harvesting and marketing (2 hours)

UNIT-III

Cultivation of Cole crops(cabbage, cauliflower, knollkohl) cucurbits(cucumber, pumpkin, sponge guard, bitter guard, pointed guard, bottle guard, musk melon, water melon) leguminous crops (pea, bean, French bean, sword bean) solanaceous fruits (tomato, chilly, brinjal) malvaceous vegetables-okra (2 hours)

UNIT-IV

Cultivation of leafy vegetables (spinach, fenugreek,), root vegetables (carrot, raddish, turnip, beetroot) tuber crops (potato, sweet potato, colocasia) bulbous vegetable (onion ,garlic) salad crops (lettuce) (2 hour)

PRACTICALS

1. Preparation of kitchen garden with any 4 types of vegetables studied (5 hour)
2. Vermicompost preparation (3 hour)
3. Visiting vermicompost centres (1hour)

SEMESTER- II

UNIT-I

Seed production in vegetables: production of seed tuber in potato, seed production in self pollinated crops (tomato) seed production in cross pollinated crops(cucurbits) seed production in root crops , seed production in onion (4 hours)

UNIT-II

Post harvest technology-vegetable preservation –present status, future scope, nutritive value of fresh and processed vegetables, canning, dehydration and storage(3 hour)

UNIT-III

Concepts in diseases of vegetable crops and their management- cause of plant disease in infectious plant diseases, symptoms of plant diseases, plant disease control- principals and methods. Causal organism and etiology of important plant diseases caused by fungi, virus, bacteria, nematodes and insects, pollutant in respect of vegetables and their control. Weed management (5 hour)

UNIT-IV

Introduction to mushroom cultivation, its natural growth aspects and climatic requirements, mushroom- edible types, appropriate mushroom cultivation sites, designing and construction of mushroom farm. Role of c0mposting in mushroom cultivation, methods of composting, types of mushroom growing facilities and mixtures, disease control and pest management , harvesting, packaging and grading, storage of mushroom (6 hour)

PRACTICALS

1. Mushroom cultivation –basic skills (2 hours)
2. Visiting commercial mushroom cultivation centre (1 hour)

REFERENCE BOOK:

1. Fundamentals of Vegetable Production – M K Rana
2. Vegetable Crops – T R Gopalakrishnan
3. Mushroom Cultivation in India – B C Suman and V P Sharma

