HORTICULTURE
(DIPLOMA STANDARD)
SUBJECT CODE: 277

UNIT- I: BASIC HORTICULTURE AND PLANT PROPAGATION


UNIT- II: SOIL AND FERTILITY, IRRIGATION AND WEED MANAGEMENT

Soil fertility – INM and IPNS – Problem soils – Acid, saline and alkaline soils - Their formation, reclamation and management.


UNIT- III: PRODUCTION TECHNOLOGY OF FRUITS AND VEGETABLES


Dry land horticulture – Importance, scope and distribution of arid and semi arid zones in India and Tamil Nadu. Crops suitable for dry land production – Important varieties, climate and soil requirements, commercial propagation methods - Spacing and planting systems - Cropping systems and intercropping – Mulching - Soil and moisture conservation methods – Anti-transpirants – Management of nutrients, water, weeds and


UNIT -IV: PRODUCTION TECHNOLOGY OF FLOWER CROPS AND LANDSCAPING


Scope and importance of ornamental gardening and landscaping – Principles – Styles of garden - Formal and informal garden – Features of garden - Garden components and adornments – Plant Components – Edges, hedges, flower beds, trophy, topiary, mixed borders – Non-plant components - Garden walls, fencing, steps, garden drives and paths, pavements, fountains, arches, pergolas, trellises, pools, etc. - operations in
maintenance of trees, annuals, shrubs, climbers, creepers, herbaceous perennials, ferns, cacti and succulents, palms and cycads – Sunken garden, roof garden, rockeries.


UNIT-V: PRODUCTION TECHNOLOGY OF SPICES, PLANTATION CROPS, MEDICINAL AND AROMATIC CROPS


Medicinal and aromatic plants - Scope and importance - Medicinal plant wealth of India and Tamil Nadu - Area and production - Classification - Annual, biennial and herbaceous perennial - Medicinal and aromatic plants for tropical, sub–tropical and temperate region - Contract farming and Good Agricultural Practices - Soil and climatic conditions, propagation and planting, irrigation, manuring, weed control, economic parts, harvesting, yield, post-harvest handling, curing and processing practices, storage

UNIT- VI: INSECT PEST AND DISEASES OF HORTICULTURAL CROPS AND THEIR MANAGEMENT


UNIT-VII: POST HARVEST HANDLING AND VALUE ADDITION OF HORTICULTURAL CROPS

Scope and importance of post harvest technology in horticultural crops - Washing, grading, sorting - pre cooling and pre treatments - Blanching & peeling methods – Post-harvest handling methods: Dehydration, Canning of fruits and vegetables - Thermal

**UNIT - VIII: LIVESTOCK MANAGEMENT AND POULTRY PRODUCTION**


**UNIT - IX: COMMERCIAL AGRICULTURE**


Production of Spawn and Mushroom – Mushroom - Introduction, importance -Present production and trade, scope for export, markets for mushroom and mushroom products – Mushroom morphology: Common edible mushrooms - *Pleurotus, Calocybe* – Poisonous mushrooms - Laboratory techniques: Equipments used, sterilization of


UNIT - X: FARM MANAGEMENT, MARKETING AND EXTENSION EDUCATION

Farm Management - Scope – Relationship with other sciences - Economic principles applied to the organization of farm business - Principles of variable proportions - Farm planning and Budgeting – Types and system of farming - Farm planning – Meaning - Need for farm planning -Types of Farm plans - Simple farm plan and whole farm plan - Characteristics of a good farm plan - Basic steps in farm planning - Farm budgeting – Meaning - Types of farm budgets – Enterprise budgeting - Partial budgeting and whole farm budgeting - Farm Risk Management - Distinction between risk and uncertainty - Sources of risk and uncertainty - Production and technical risks - Price risk - Financial risk - Methods of reducing risks - Horticultural Marketing – Nature and Scope - Concepts and definition of marketing - Scope of agricultural marketing -Classification of
markets - Structure, conduct – Performance - Market forces - Demand and supply -
Characteristics of agricultural commodities - Marketing costs and marketing margins -
Price spread. Marketed and marketable surplus - Marketing Functions and Institutions -
Marketing functions – Packaging – Transportation - Grading and standardization –
Warehousing – Processing - Cold storage - Marketing agencies and institutions -
Cooperative marketing societies - Role of regulated markets – NAFED – TANFED –
NHB - Commodity boards - Marketing of agricultural inputs - Market information and
intelligence - AGMARKNET, DEMIC, DMI etc., - Usage of market information.

Agricultural Extension – Scope, principles - Teaching Learning Process. Communication
– Meaning, definition, elements and their characteristics, types, models and barriers in
communication. Diffusion – Elements - Adoption – Stages, adopter categories and their
characteristics. Extension methods – Definition, classification - Individual contact, group
contact and mass contact methods. Participatory Rural Appraisal techniques. Audio -
Visual aids – Definition, advantages, classification, choice, criteria for selection. Farm
Journalism – Definition, basic concepts, writing for media. Information and
Communication Technology (ICT) – Computer networks, internet, video conferencing,
agriportals, Kisan Call Centre, mobile phone. Photography – Basic concepts, advancements.