

## 2.8 31608 FUNDAMENTALS OF AGRONOMY

### UNIT-1 THEORY

- 1.1 Agriculture- Definition- Scope of agriculture in India and Tamil Nadu
- 1.2 Agronomy- Definition- Agronomical classification of crops- their importance.
- 1.3 Major crops of India and Tamil Nadu.
- 1.4 Factors affecting Crop Production- Moisture, Aeration, Light, Temperature and Nutrients.
- 1.5 Cropping systems- definitions, Principles; Principles and Practices of Agricultural Operations- Tillage and Tilth- Objectives and Types of Tillage- Primary tillage, Secondary Tillage and Intercultural Operations- Principles of Seeds and Sowing- Seed Treatment- Nursery- Transplanting- Plant population and crop geometry.
- 1.6 After cultivation- Gap Filling and Thinning- Weed management and irrigation.
- 1.7 Manures- Organic Manures- Green Manures.
- 1.8 Fertilizers- Methods of application- Basal, Split and Foliar application.
- 1.9 Harvesting, Threshing, Drying and Storage.
- 1.10 Meteorology- Agricultural Meteorology- Definition- Importance of Agricultural Meteorology for Crop Production-
- 1.11 Weather Parameters and their role in Crop Production- Agro Climatic Zones of Tamil Nadu

### UNIT-2 PRACTICAL

- 2.1 Identification of Crops in low land, irrigated upland and dry lands. Acquiring skill and estimating the efficiency of tillage implements.
- 2.2 Practicing the implements used for Primary, Secondary Tillage- Practicing the implements used in rice cultivation.
- 2.3 Skill learning and practicing nursery bed preparation for low and irrigated uplands.
- 2.4 Skill imparting practices in seed treatment- Use of Bio Fertilizers- Learning seed and seedling treatment, practicing sowing and transplanting, weeding and irrigation.
- 2.5 Identification of organic manures and green manures- Inorganic fertilizers- Identification of fertilizers.
- 2.6 Application of organic manures, green manures and inorganic fertilizers- Measurement of growth and yield components of major crops.
- 2.7 Visiting Agro-met observatory- Handling Rain Gauge and recording rainfall- Single Stevenson screen- Maximum, Minimum, Dry and Wet Bulb Thermometers
- 2.8 Wind vane and anemometer- Standard Week-wise, Month-wise and Season-wise mean calculation and interpretation.

### References Books:

1. Yellamananda Reddy, T and G.H. Sankara Reddy. 2010. Principles of Agronomy, Kalayani Publishers, New Delhi