

UNIT I

History of Agriculture; Branches of agriculture; Terminology – Agriculture – Agronomy – Crop; Classification of crops; Important events in the history of Agriculture; balance sheet, liabilities and contrasting trends (DATA), Agricultural Growth.

UNIT II

Meaning and scope of agronomy; National and International research organization related to agricultural in India; Agro-climatic zones of Gujarat

UNIT III

Principles of Agronomy-Agro meteorology-Soil and Tillage-Soil and water conservation-Dryland agriculture-Soil fertility (manure and fertilizer)-Irrigation water management-Weed management-Cropping and farming systems- Sustainable Agriculture.

UNIT IV

Weed management – Common weeds-losses and benefits-Weed ecology and classification; Crop-weed association-competition; Methods of weed control in major crops; Agrochemical for weed control.

UNIT V

Dry farming; precision farming; LEISA concept; organic farming; IFS concept.

Practical

1. Role of computer technology in generating balance sheet and growth rate calculation
2. Identify Agro-climatic zones of Gujarat
3. Identification of tools and it's used in field crops.
4. To identify tillage implements and seeding equipments
5. Practice of ploughing and seeding
6. Practicing different methods of seed treatment
7. Method of sowing of various crops
8. Identification and collection of common weeds
9. Weed control arithmetic
10. Weed management practices of important crops
11. Computer technology in precision farming
12. Chronological sequence of crop production
13. Participation in ongoing field operation
14. Visit of progressive farmers' fields and practical exposures
15. Preparation of cropping scheme according to regions of Gujarat.

Reference books

1. Principles of Agronomy – by S. R. Reddy, Kalyani publishers
2. Principles of Agronomy - by Reddy and Reddy