

AGR210:CROP PRODUCTION TECHNOLOGY-I (KHARIF CROPS)

L:1 T:0 P:4 Credits:3

Course Outcomes: Through this course students should be able to

CO1 :: identify various scientific approaches used in management of kharif crops

CO2 :: define and evaluate good agricultural practices of kharif crops

CO3 :: demonstrate practical skills in Kharif crop cultivation

CO4 :: illustrate crop husbandry of different kharif crops

Unit I

Crop production package of practices for kharif major cereals : rice (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), maize (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

Unit II

Crop production package of practices for kharif millets : sorghum (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), pearl millet (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), finger millet and other minor millets (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

Unit III

Crop production package of practices for kharif pulses: pigeon pea (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), mung bean and urd bean (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

Unit IV

Crop production package of practices for kharif oilseeds : groundnut (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), soyabean (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), Sesame, and Castor (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

Unit V

Crop production package of practices for kharif fibre crops : cotton (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), jute (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

Unit VI

Crop production package of practices for kharif forage crops : sorghum and maize (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), napier and guinea grass (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield), cow pea and cluster bean (origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield)

List of Practicals / Experiments:

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- to study nursery preparation and transplanting of rice
- to study the sowing of soybean, pigeon pea and mung bean
- to study the sowing of maize, groundnut and cotton
- to study effect of seed size on germination and seedling vigour
- to study effect of sowing depth on germination
- to identify weeds in Kharif crops and herbarium preparation

- To record biometric observations and study yield contributing characters of Kharif crop
- to study different methods of fertilizer application and dose calculation
- To study important crop varieties of Kharif season
- To study the layout and planning of agronomic experiments
- To study forage crops and practice silage and hay making
- To visit research centres to know about modern technology for raising crops

Text Books:

1. TEXTBOOK OF FIELD CROPS PRODUCTION VOLUME 1 AND 2 (FOODGRAIN CROPS & COMMERCIAL CROPS) by DR. RAJENDRA PRASAD, ICAR
2. MODERN TECHNIQUES OF RAISING FIELD CROPS by CHIDDA SINGH., OXFORD & IBH

References:

1. AGRONOMY OF FIELD CROPS by S.R. REDDY., KALYANI PUBLISHERS