

Sugarcane Cultivation Expert

1. Department: Botany
2. Title: Sugarcane Cultivation Expert
3. Sector: - (B.Sc. I-Plant Protection)
4. Year of implementation: 2024-2025

Course Structure

Skill Level	Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
4	15	30	45	02	19

Syllabus

Learning Objectives:

1. To impart the knowledge of the basic education about Sugarcane
2. To develop skill in practical work and experiments.

Theory Syllabus (15 Hrs, Credit: 01)

Unit I Agronomical practices for sugarcane cultivation

Soil, Temperature, Preparation of beds, Layout of land for plantation and research, Tillage
Planting Time, Selection of varieties, Quality and quantity of seed

Unit II Cultivation Practices

Intercropping

Methods of Planting: Flat bed, Furrow and Trench; Small beds with ridges and furrows method; Serpentine method; Long furrow method; Contour Furrow method; Irrigation, Manures and Fertigation.

Plant Protection (weeds, diseases, pests and insects)

Ripening, Yield and Ratooning

Practical Syllabus (30 Hrs, Credit: 01)

List of Experiments:

24 hr

- 1 Study of soil analysis.
- 2 Study of Improved Planting Technique
- 3 Study of Inter -culture & Weed Control methods

- 4 Study of different sugarcane varieties
- 5 Study of sterilization techniques and preparation of media
6. Study of Inoculation and In vitro culture of sugarcane
7. Study of pests and their management
- 8 Study of disease and their management

Project/ Field Visits/ Industrial Visit

06 hr

Learning Outcomes:

- 1 The students should be able to know education about Sugarcane.
- 2 The students should be able to prepare seedlings.

Recommended Books:

1. R. L. Yadava (1993) **Agronomy of Sugarcane**. International Book Distributing Company, Publishing Division. 375 pp.
2. S. K. Sharma, L. Sharma, S. K. Awasthi & A. D. Pathak. (2017). **Sugarcane in India: Package of Practices for Different Agro- Climatic Zones**. ICAR – AICRP on Sugarcane
3. Shanthy T. R., Bakshi, R., V. Venkatasubramanian, C. Karpagam & D. P. Prathap. (2014). **Scientific Sugarcane Cultivation**. Sugarcane Breeding Institute Coimbatore

BOS Sub Committee:

1. Prof. (Dr.) D. D. Namdas– Chairman
2. Ms. R. D. Namdas – Member

Expert:

1. Mr. Mahesh Babar -Industrial Expert
2. Dr. B. Yadgirwar- Academic Expert