



Capacity Building and Advisory Services in Sugarcane R & D



The Indian Institute of Sugarcane Research (IISR) has a team of highly experienced scientists and technical staff having good knowledge of modern equipments and techniques in different fields of agricultural research. The Institute has well equipped laboratories with modern amenities. The Institute offers short-term trainings to students, extension personnel and farmers. The Institute also provides consultancies to sugar mills and advisory services to its stakeholders.

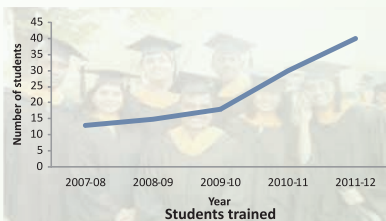
Capacity building of research scholars

In order to encourage sugarcane research in Academic Institutions, the Institute has signed MoUs with a few leading Universities for adequate capacity building of researchers in all branches of sugarcane research. Through this mechanism, the Institute encourages guidance or co-guidance to Ph.D. scholars in the disciplines like Biotechnology, Biochemistry, Microbiology, Genetics and Plant Breeding, Agril. Economics, Agril. Statistics, Agronomy, Plant Pathology, Agril. Entomology, Farm Machinery & Power, Plant Physiology, Post-harvest technologies and Agril. Extension. A nominal fee is charged, if research experiments are to be conducted at IISR, Lucknow

The Institute also organizes Summer/Winter Schools for researchers, as per approval of ICAR, on latest production, protection and post-harvest technologies on sugarcane and sugarbeet cultivation. Institute also imparts Post-Doctoral research training on advances in sugarcane research to scholars from Afro-Asian countries.

Trainings to students

The Institute offers short term project trainings to B.Tech, B.Sc., B.C.A., M.Tech., M.Sc. and M.C.A. students by charging nominal fee in areas of Biotechnology & Tissue Culture, Genetics & Plant Breeding, Plant Physiology & Biochemistry, Agricultural Engineering, Microbiology, Computer Sciences, Agricultural Economics and Statistics to a limited number of students on first-come-first serve basis. Students are given practical training and exposed to advance techniques. The format, fee structure and the guidelines for sending the application for such training may be downloaded from the Institute website. The present fee structure for these trainings is ₹15,000, ₹20,000 and ₹25,000 for three modules of 45 days, 90 days and 180 days, respectively. A large number of students from more than 30 colleges/universities from U.P., Rajasthan, Uttarakhand, M.P., Bihar, Maharashtra, Karnataka, J & K, Tamil Nadu, Orissa & Punjab have been imparted training during the last five years.



Training modules

- Biotechnological techniques
- Advanced molecular techniques
- Plant physiological techniques
- Plant pathological techniques
- Exposure of sugarcane farm machinery
- Computer science and communication technology
- Entrepreneurship development
- Rural/Co-operative cane development management
- Resource conservation and precision farming
- Molecular biology techniques
- Microbiological techniques
- Tissue culture techniques
- Basic bio-information techniques
- Post-harvest technology
- Economic & financial analysis
- Statistical tools (SAS, GIS and INDOSTAT)
- Agri-business development management

Trainings to farmers, entrepreneurs and extension personnel

In order to disseminate the scientific interventions in sugarcane production technology and encourage improved cultivation of sugarcane for obtaining higher crop yield and sugar recovery, the Institute imparts training to farmers, cane development officials and entrepreneurs from time to time.

Short term trainings: The Institute conducts short term (3-7 days) training programmes in local language for farmers, farm women and rural youth entrepreneurs from all over India on important aspects of sugarcane cultivation and associated business perspectives. Agencies like ATMA, KVKs, NGOs, State Agriculture/Cane Departments, Cane Development Councils and Sugar mills may sponsor farmer/entrepreneur participants for such short term trainings to encourage high yielding cane cultivation in their area of operation.

Trainings to sugar mill cane development officials:

With the objective to groom and train the cane development officials/cane managers of sugar mills in latest technology of sugarcane cultivation and development, a 21 to 30 days national training programme is offered by the Institute during July, every year. Sugar mills across the country may sponsor officials for appropriate capacity building of their officials/cane managers in efficient sugarcane cultivation. The fee for such training is ₹10,000 per participant.

International training programmes

In association with ASTI, IAPSIT, SSRP and STAI, the Institute also organizes 3-week international training programme on sugarcane production management during October - November. In addition, the Institute also offers three other specific international training programmes on (i) mechanization of sugarcane cultivation, (ii) bio-intensive management of sugarcane insect-pests and diseases, and (iii) manufacturing and storage of jaggery to Afro-Asian nationals on request basis. The fee for such training including registration, boarding & lodging and local travel expenses is US \$ 2500 per participant.



Consultancy & Contractual Services

For the benefit of sugar industry and other associated industries, IISR, Lucknow extends consultancy and contractual services in the following areas:

- Scientific cane development in sugar mill areas
- Mechanization on sugarcane cultivation
- Integrated sugarcane ratoon management
- Intercropping with sugarcane
- Integrated management of insect pest and diseases of sugarcane and sugarbeet
- Scientific varietal planning in sugar mill areas
- Management of weeds
- Water management (Micro irrigation, fertigation and moisture conservation) in sugarcane
- Sugarbeet production technology including tropical sugarbeet (TSB)
- Seed treatment unit
- Specialised trainings/MDPs to sugar mills
- Demand based research experiments such as testing of products
- Entrepreneurship development in jaggery making.
- Prototype development



Advisory Services

The Institute offers advisory services to central/state cane departments, farmers and other stakeholders on the following aspects:

- Monthly advisories on cane cultivation
- Weather data advisories
- Crop/Varietal planning
- Survey and surveillance of insect pest and diseases
- Sugarcane cost of cultivation advisory
- Predictions of cane acreage and production
- Impact assessment studies
- Disease and insect pest management

Sponsoring Agencies

- State Cane/Agriculture Departments
- SAUs/Other Universities
- Directorate of Sugarcane Development
- Cane Development Councils
- KVKs
- ATMA's
- NGOs
- ICAR
- International Agencies
- Government of Foreign Countries

Partners

International : EMBRAPA, CTBE & UNICAMP, Brazil and GXAA'S PR, China,

National : NSBI, Coimbatore; VSI, Pune; UPCSAR; Sugar Mills and UP Cane Department

The requisite fee for training, contractual and consultancy services may be deposited through Bank Draft drawn in favour of the Director, IISR, Lucknow - 226 002 payable at any nationalized bank at Lucknow before the commencement of the training.

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