- Beater settings, Trouble shootings, Maintenance of DR gins
- Proper grooving & maintenance of rollers for better quality parameters
- Change in gin settings in accordance with moisture content

#### For Oil Mill Establishement

- Detailed Specifications of Oil Mill Machinery
- Civil infrastructure requirement
- Cost-benefit analysis
- Role of cottonseed moisture in oil extraction
- Dryers for reducing moisture in cottonseed
- Online ginning and oil mill operation

#### For Lab Technicians

- Calibration of HVI for ICC and HVI modes
- Description of operation of HVI
- Preparation of test reports
- Interpretation of test results
- Description of control atmosphere, air pressure and fibre properties etc.
- Description of conventional instruments in relation to understand the basic principles of operation of HVI
- Exhaustive practicals for operation of HVI



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ICAR-CIRCOT Leaflet No.: 2023/05

## SKILL DEVELOPEMNT PROGRAMME ON

# **DOUBLE ROLLER GINNING TECHNOLOGY**& BASICS OF COTTON GRADING



# **GINNING TRAINING CENTRE**

ICAR - Central Institute for Research on Cotton Technology (CIRCOT)



Indian Council of Agricultural Research (ICAR)
Department of Agricultural Research and Education (DARE)
Ministry of Agriculture & Farmers Welfare, Govt. of India

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## **About Us**

Ginning Training Centre (GTC) of ICAR-CIRCOT, Nagpur, is a unique Research and Training Centre of its kind in Asia under Indian Council of Agricultural Research (ICAR), Ministry of Agriculture, Govt. of India that imparts scientific, theoretical and practical training on Double Roller Ginning Technology, Fibre Quality Evaluation and By-product Utilization of Cotton and Cotton Stalks for gin owners, managers, supervisors, fitters etc. This centre has so far trained over 10000 trainees from across most part of our country covering personnel from ginneries, Govt. organizations like The CCI Ltd., MSCCGMF Ltd., Seed industries like Ankur Seeds, Cotton Breeders, etc.

# **About the Training Programme**

Gin setting and maintenance are crucial for getting the optimum productivity, reduction in downtime and contamination-free lint production without compromising the quality aspects of fibres. Gin setting is an art which can be learned and perfected through theoretical and practical training imparted by reputed institutes like ICAR-CIRCOT with experienced team members. Understanding and learning quality parameters of cotton fibres are equally important for cotton grading which would help in grading them during marketing.

Due to the recent fluctuations in cotton pricing and modernization of ginning industry, the high demand for skilled manpower will result in shortage of well trained technicians and machine operators in the industry.



## Infrastructure

This centre possesses almost all models and makes of ginning and pressing machinery including a modern roller as well as saw ginning plant. Moreover, this centre has demonstration plants of Particle Board Preparation Plant from Cotton Stalks exclusively funded by Common Fund for Commodities (CFC), Netherlands, Cottonseed Processing Plant and Rotobar Ginning Technology of M/s Lummus, USA.

The centre also has fibre testing laboratory with state-of-the-art facilities like Advanced Fibre Information System (AFIS), high volume instrument (HVI) and fully automatic HVT machines for determining different parameters of cotton samples. This centre has played a crucial role in modernization of Indian Ginning Industry and there it has pioneered the development of many essential and basic machines for ginning industry like cylinder cleaner, auto-grooving machine, axial flow cleaner, barcoding and RFID tagging systems, etc.

## **Accommodation & Fees**

The Guest house is constructed within the lavish premises of GTC, Nagpur and have air-conditioned rooms as well as simple rooms. Accommodation and Lodging for the trainees will be provided in our guest house. Moreover, the training fee for one week course is Rs. 11800/- (inclusive of GST, lodging and boarding charges). It is required to deposit the training fee in advance for participation through NEFT in the bank account of The Officer In-charge, GTC of ICAR-CIRCOT, Nagpur.

### **COURSE CONTENT**

## For Managers, Supervisors, Graders:

- Gin settings for different fibre length for high productivity, less trash content and optimum maintenance
- Energy consumption in ginneries (Electrical facts like voltage, current, power, power factor etc.)
- Reduction in maintenance cost, Requirement of air pressure for different unit operations
- Maintenance of quality of cotton, Increasing the productivity and production
- Avoidance of fires in ginneries, Measurement of Ginning outurn and moisture content
- Losses in ginneries, Visit to Gin Manufacturing Factory & Spinning Mill
- Evaluation of Fibre properties including preparation of staples

#### **For Fitters**

 Details of various components of the DR ginning machine, Gin settings for different fibre length for high productivity, less trash content and optimum maintenance