



# Training on Value Addition to Cottonseed







Kernel

Deoiled cake



August 29 - September 1, 2016

# Organized by

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

D.A.R.E., Ministry of Agriculture & Farmers Welfare, Govt. of India
Adenwala Road, Matunga, Mumbai- 400019 (MH) INDIA

#### Introduction

ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT), located at Matunga in Mumbai, was established in the year 1924. ICAR-CIRCOT, a unit under the Division of Agricultural Engineering of the Indian Council of Agricultural Research (Department of Agricultural Research and Education, Ministry of Agricultura & Farmers Welfare, Government of India) is engaged in research and development activities on cotton technology. ICAR-CIRCOT is an acknowledged leader for developing new technologies for better utilization of cotton and its by-products. ICAR-CIRCOT also provides testing services to industry and academia through its NABL accredited well-furnished labs. ICAR-CIRCOT has been organizing training programmes to popularize various technologies developed by the Institute for capacity building across the various segments of cotton value chain with following Mandate:

- Basic and strategic research on processing cotton and its agro-residues, development of value added products and quality assessment
- Skill development and business incubation services and function as referral laboratory for cotton fibres.

## About the training programme

Cotton is a major cash crop and India is the largest cotton producer in the world today. It is estimated that about 34.2 million bales (170 kg each) of cotton were produced during 2015-16. Thus, based on the output of cotton for 2015-16, cottonseed available for processing during this year will be about 11.4 million tonnes. Cottonseed contains good quality oil and protein and is therefore a valuable resource but has not received the due attention so far as fibre being the main textile raw material was of prime importance. Most of the cottonseed obtained after ginning in our country is directly crushed to get crude oil which is used for edible purposes after refining and the residual cottonseed cake is used for ruminant feed. However, only 10-12% oil is recovered in the process and the remaining about 7-8% oil is left in the cottonseed cake. Besides, valuable by products like linters and hulls are lost and the cake obtained has lower protein content and high content of fibres which restricts its use for high end poultry and fish feed applications. Scientific cottonseed processing on the other hand results in almost complete recovery of oil and valuable products such as linters, hulls and de-oiled high protein cottonseed meal and thus full value of cottonseed is realized. The products thus obtained can be further value added to get higher economic benefit. This training programme aims to create awareness among the participants about the benefits of scientific processing of cottonseed and various technologies developed at CIRCOT for value addition to cottonseed.

## **Objectives**

To impart knowledge about scientific processing of cottonseed and its benefits

To teach the technologies for value addition to cottonseed

To impart skills on various analytical methods for analysis of cottonseed

#### **Course Content**

- Scientific processing and value addition to cottonseed
- Prospects of cottonseed oil
- Value addition to cottonseed by fermentation technology
- Diversified uses of cotton linters
- Value added products from linters- nanocellulose, pulp and paper
- Utilization of cottonseed for feed and food purposes
- Demonstrations and hands on training on cottonseed and meal analysis

#### **Facilities Available**

- Soxhlet extractor
- Pressurised solvent extractor
- Automatic nitrogen analyser
- Automatic fibre analyser
- · Gas chromatograph
- UV-Visible spectrophotometer
- Fermenter
- Pulp and paper making and testing instruments
- Fluorescence microscope
- · Nanocellulose pilot plant

#### Date and venue

Aug. 29 – Sept. 1, 2016 at ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT), Adenwala Road, Matunga (East), Near Five Gardens, Mumbai 400019.

#### **Accommodation**

Guest house accommodation at ICAR-CIRCOT is limited and shall be provided at standard rate on first-cum-first-served basis only for 10 participants on sharing basis.

#### Fees

The programme fee is Rs. 12,000 + 15% service tax per person. The charges include course fee, course material and working lunch. The fee does not include travel, lodging and conveyance and other personal expenses. Students and NARS participants will be given 50% concession in fee.



## How to apply

The interested participants may send their application in the prescribed format which is also available on the website www.circot.res.in. The fee in the form of DD drawn/ at par Cheque in favour of "Director, CIRCOT" payable at Mumbai, may be sent to the below mentioned address so as to reach us on or before 22<sup>rd</sup> August 2016 and NEFT transfer details of bank account available in registration form on website.

### How to reach ICAR-CIRCOT

From Airport (Domestic) : 10 km From Airport (International) : 12 km

Nearest Railway Station : Dadar (1.7 km)

Nearest Bus Stop : Kapol Nivas on Dr. B.R. Ambedkar Road, Matunga (E), and Five Gardens Bus Stop

Land Mark : Five Gardens

# **Organizers**

Course Director : Dr. P. G. Patil, Director, ICAR-CIRCOT

ourse Coor dinator : Dr. Sujata Saxena, Principal Scientist, Head, CBPD

Course Co-Coordinator : Dr. Virendra Prasad, Sr. Scientist, CBPD,

Dr. V. Mageshwaran, Scientist, GTC Nagpur

# Address for correspondence

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