Training Course on

GM Cotton Testing

ICAR-Central Institute for Cotton Research

2-7 March 2020

Sponsored by
Department of Agriculture, Cooperation & Farmers Welfare
MoA&FW, New Delhi -110001

Course Director:
Dr. V. N. Waghmare

Course Co-Director
Dr. G. Balasubramani

Course Coordinators:
Dr. J. Amudha
Dr. K.P. Raghavendra
Dr. N. Chandrashekhar

ICAR-Central Institute for Cotton Research
Post Bag No.2, Shankar Nagar PO,
Nagpur - 440 010,
Maharashtra
2020
ICAR-CICR in Nutshell:

ICAR-CICR is a premier institution for cotton research in India under the aegis of Indian Council of Agricultural Research (ICAR), New Delhi. It was established in 1976 at Nagpur (Central) with two Regional Stations at Coimbatore (South) and Sirsa (North). The institute has a major mandate to conduct basic and strategic research for cotton improvement in the country. Over the years ICAR-CICR has emerged as a leader in cotton research and addressing various issues confronting cotton production system in the country.

The institute has been recognized all over the world for its outstanding work on improvement of upland and desi cotton, conservation of germplasm, multiple resistance breeding, marker assisted inter specific trait introgression, development of Bt-varieties, crop production technologies, basic research on insect resistance to insecticides, development and dissemination of IRM (Insecticide Resistance Management) and IPM (Integrated Pest Management) technologies for conventional as well as Bt cotton and presently pink bollworm management.

Detection of Bt Cotton:

Biotechnological advances have offered a tremendous scope for creating novel transgenic plants to combat biotic and abiotic stresses, to improve yield and fiber quality. The Bt cotton technology was first approved in 2002 by the GEAC for commercial cultivation in India with single gene Cry1Ac. Later, in 2006, two genes Cry1Ac and Cry2Ab genes were introduced to circumvent development of resistance by the insects. Total six events were released in our country for commercial cultivations to control bollworms. Globally, GM technology for cotton is available in the form of insect and herbicide tolerance either as single or stacked traits.

Bt Referral Lab:

Government of India has recognized ICAR-CICR as Bt Referral Laboratory in November 2003 under the seed Act to test Bt cotton hybrids/varieties cultivated in the country. Since then, a number of samples are being tested every year and reported as per the standard operating protocol.
**Hands on training:**

The proposed 6-days training course provides basics to advanced hands on training, instruments usage, data analysis using software, operational techniques, data interpretation, trouble shooting, skill development etc. The course will consists of combinations of lectures on development of Genetically Modified (GM) cotton, current status of GM crops global importance of GM regulations and practicals on various molecular tests to analyse the transgenes /traits.

**Eligibility:**

The training course is exclusively designed to give comprehensive knowledge and hands on training to the officials working in State Seed Testing Laboratories/Seed Analysts.

**Approaches used for detection of Bt gene / Bt proteins**

1. Bt gene detection by PCR amplification.
2. Qualitative & Quantitative analysis of Cry protein expression through ELISA test.
3. Qualitative analysis of other GM event (HT-Cotton)

**Accommodation:**

Food and Accommodation will be provided by the organizers at ICAR-CICR Nagpur. Accommodation will not be provided to local participants. No TA and DA will be paid to any participants by the organizers. Maximum 20 participants will be selected for this training on first come first served basis.

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<tr>
<th>Course Director</th>
<th>Dr. V.N. Waghamare</th>
<th>Director, ICAR-CICR</th>
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<tbody>
<tr>
<td>Course Co-Director</td>
<td>Dr. G. Balasubramani</td>
<td>Pr. Scientist (Biotech)</td>
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<td>Course Coordinators</td>
<td>Dr. J Amudha</td>
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<td>Dr. K.P. Raghavendra</td>
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<td>Dr. N Chandrashekar</td>
<td>Scientist (Biotech)</td>
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**Institute location:**
Panjari Farm, Near Khapri, Wardha Road, Nagpur 441108

**How to reach ICAR-CICR:**
- From Airport: 7 km
- From Railway Station: 15 km
- Bus Stop: Khapri, Wardha Road
- Landmark: Opposite to Hotel Le Meridien, Wardha Road
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## Application Form

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The Interested participants fill the above form and send through the following email latest by 20-02-2020.

Email id: <cicrnagpur@gmail.com>, <bala77bio@gmail.com>