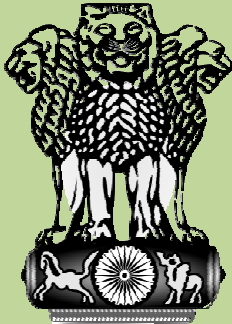


# National Training on Seed Testing



सत्यमेव जयते

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## National Training on Seed Testing (March 02-06, 2020)



**National Seed Research & Training Centre  
G.T. Road, Collectry Farm, Varanasi, Uttar Pradesh  
Subordinate Office of Ministry of Agriculture & Farmer's Welfare, DAC&FW**

Title of Training: National Training on Seed Testing

Date and Duration : March 02-06, 2020 (5days)

Course Director : Dr. Arvind Nath Singh, Director

## **BACKGROUND**

Seed testing is done to assess seed lot attributes and determine overall quality and value for seedling production and storage. Seed testing standards are based on scientific evidence and provide set procedures for facilities to conduct tests in a uniform manner and ensure reproducibility of results for seed owners. India follow Indian Minimum Seed Certification Standard at par the International Seed Testing Association.

### **Objectives of Seed Testing**

- i. To determine the seed quality for its suitability for sowing purpose.
- ii. To identify seed quality problems and their probable causes.
- iii. To determine if seed meets established quality standards or labeling specifications.
- iv. To establish quality and provide a basis for price and consumer discrimination among lots in the market.
- v. To determine the need for drying, processing, storability and marketing of seed.

### **Importance of Seed Testing**

- i. Samples drawn from seed lot to be used for cultivation. The quantity of seed sample taken for testing in laboratory is very less as compared to the seed lot it represents. The importance of seed testing was realized more than 100 years ago for assured planting values. The adulteration of vegetable seeds by stone dust which was packed in some parts of the world particularly in Europe.
- ii. Seed testing has been developed to aid agriculture to avoid some of the hazards of crop production by furnishing the needed information about different quality attributes *viz.*, purity, moisture, germination, vigour and health.
- iii. Quality control of seed depends on the different seed testing protocols which determine the genuineness of the cultivar.
- iv. Testing of seed to evaluate the planting value and the authenticity of the certified lot.
- v. Seed testing is required to assess the seed quality attributes of the seed lots which have to be offered for sale.
- vi. These quality attributes are seed moisture content, germination and vigour, physical and genetic purity, freedom from seed borne diseases and insect infestation.
- vii. Standard seed testing procedures for the evaluation of the seeds were developed by ISTA. It is obligatory on the part of the seed analyst to follow rules prescribed by ISTA, if the seed is moving to the International trade.
- viii. The seed testing procedures which are described below are based mostly on the international rules. Economic yield of a crop depends on the quality of seeds which can be evaluated by seed testing.
- ix. The testing of seed quality is carried out on seed.

### **Important Components of Seed testing**

- i. Seed sampling
- ii. Physical purity
- iii. Germination
- iv. Seed moisture
- v. Seed viability
- vi. Seed health
- vii. Seed Vigour Testing
- viii. Testing of Bt. Seed Sample
- ix. Cultivar purity testing through Grow Out Test (GOT)

In this context National Seed Research & Training Centre, Varanasi is organizing Training Programme on the topic “Seed Certification” at NSRTC, Varanasi.

## **ABOUT NSRTC**

The Government of India, Ministry of Agriculture & Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Krishi Bhawan, New Delhi has started the National Seed Research and Training Centre (NSRTC), Varanasi during October, 2005. The prime objective of establishment of NSRTC is to have a separate National Seed Quality Control Laboratory, which serves as a Central Seed Testing Laboratory (CSTL) w.e.f. 1<sup>st</sup> April, 2007 by Gazette Notification No. REGD.NO. D.L-33004/99 dated: 8th March, 2007.

CSTL, NSRTC is maintaining the uniformity in seed testing result among all State Seed Testing Laboratories at the national level. It acts as referral Laboratory for court referred seed samples and also a member laboratory of International Seed Testing Association (ISTA) Switzerland. In addition, CSTL monitor the market seeds through purchasing the samples from various seed selling points and its testing. Further, NSRTC organizes the National trainings, workshops & Congress for the benefit of personnel who are involved in Seed Development and Quality control programme and stakeholders of seed Industry for updating their Knowledge and skills.

National Seed Research and Training Centre (NSRTC) is the apex centre to maintain the uniformity in seed testing results and HRD at national level. NSRTC monitors the all State Seed Testing Laboratories and try to overcome their difficulties. It makes efforts to expertise seed entrepreneurs and other stakeholders involved in seed development programme and make them more potent. Through National Trainings, National Workshops and National Seed Congress, NSRTC is continuously disseminating the knowledge of new techniques of seed testing, role of quality seed etc. to the various seed development agencies and other stakeholders.

Central Seed Testing Laboratory (CSTL) has been assigned to analyze the sample of complainants through Court. Seed testing in collaboration of state testing laboratories and testing of market samples are also important programmes of CSTL. Central Seed Testing Laboratory is a member laboratory of International Seed Testing Association (ISTA) and undergoing PT programme of ISTA for accreditation which will ensure Seed Industry in India globally competitive.

## **PROGRAM GOAL**

The training programme on Seed Testing is designed to provide in-depth knowledge in Seed Testing. The programme will build capacity of the participants on the respective areas.

## **ABOUT THE TRAINING PROGRAM:**

The training programme on Seed Testing is designed to provide in-depth knowledge in relation to process of seed testing and how to maintain seed testing laboratory and uniformity between CSTL & STL results. The programme will build capacity of the participants on the areas related to seed testing.

## **OBJECTIVES & KEY COMPONENTS**

- ✓ Build capacity of officials working in the area of quality Seed Certification.
- ✓ To bring understanding about seed certification process.
- ✓ Bring awareness about the opportunities and challenges in seed certification.
- ✓ To bring understanding of demand for certified seed.
- ✓ To bring understanding of selection and registration of seed processing unit.
- ✓ To bring understanding of seed sampling and testing.

NATIONAL SEED RESEARCH AND TRAINING CENTRE  
Govt. of India, Ministry of Agriculture & Farmers Welfare  
Department of Agriculture, Cooperation & Farmers Welfare  
G.T. Road, Collectry Farm, VARANASI-221 106 (U.P.)

National Training Course on “Seed Testing”

March 02-06, 2020 (5 days)

Venue: NSRTC, Varanasi (U.P.), India

**REGISTRATION FORM**

(PLEASE FILL THE FORM IN CAPITAL LETTERS- Separate form for each course)

(Registration through Speed post and online registration via e-mail on [dir-nsrtc-up@nic.in](mailto:dir-nsrtc-up@nic.in) is preferable. )

Name of the Training:.....

Name:

Position/Designation:

Company/Institution:

Address:

Postal code:

Phone / Mobile number:

Fax number:

E-mail:

Accommodation at NSRTC hostel:

Yes .....

No.....

Signature with seal (Authorised person of sponsoring organization)

Place:

Name:

Date:

Designation:

**Note:** The selected participants will receive separate communication. Only those participants who are finally selected will be allowed to attend the training with proper relieving from their parental organization. Delay due to postal / courier NSRTC will not be held responsible.

**Route map to reach NSRTC:** Cantt Railway Station to Allahabad G.T. Road, Collectry Farm, Mughalsarai Railway Station to Cantt Railway Station to Allahabad G.T. Road, Collectry Farm, Airport: Pre-paid taxi/auto available in Airport, distance: 30 Km Railway Station / City bus stand: Distance 6 Km Taxi / Auto available.

Duly filled in registration form should be sent at following address:

The Director,

National Seed Research and Training Centre,

G.T. Road, Collectry Farm, P.O. Industrial Estate,

Varanasi – 221 106 (U.P.)

Phone: 0542-2370222, Fax: 0542-2370298, E-mail: [dir-nsrtc-up@nic.in](mailto:dir-nsrtc-up@nic.in) ; Website: [www.nsrtec.nic.in](http://www.nsrtec.nic.in)

- Note:**
1. Each training will cover maximum 25 participants.
  2. The training course will be free for selected candidates and will include the course material, working lunch, Dinner and Session Tea. NSRTC will pay travel cost to participants made by train only subject to the train ticket booked in AC-III tier in Mail/Express/Super Fast train (Tickets booked under Tatkal Quota/Rajdhani Express/Premium trains etc will be restricted) and No local TA will be entertained. Accommodation in NSRTC hostel will be free of cost on first come first basis.
  3. During training course, participants will get opportunity to share their experience with co-participants and therefore, they should bring relevant material in electronic form for discussion.

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