

**International Training program on  
“Seed production, Processing and Commercialization”**

**8<sup>th</sup> - 22<sup>nd</sup> January, 2019 at National Seed Research & Training Centre (NSRTC)  
Varanasi, Uttar Pradesh, India**



सत्यमेव जयते

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Government of India**

## **About Feed The Future India Triangular Training (FTF ITT) Program**

Feed The Future India Triangular Training (FTF ITT) Program was launched on 25<sup>th</sup> July, 2016 at New Delhi with the objective to address human and institutional capacity gaps in food & nutritional security, in select African and Asian countries. During the program period until 2020, Agricultural professionals from 20 Partner Countries of Africa and Asia will be trained. The program will conduct 32 fifteen days duration training courses (excluding travel period) at select Indian Institutions for 25 participants in each program, and 12, ten days duration training program (excluding travel period), in selected Partner Countries in Africa and Asia, for up to 50 participants per program. Each course module will focus on themes or sub sectors in which India Institutions of reputed or have demonstrated comparative advantage to offer such trainings and ensure that it effectively responds to the target countries capacity gaps. This approach is designed to respond to the needs of target countries based on the Demand Analysis carried out at the beginning of this program. National Institute of Agricultural Extension Management (MANAGE), Hyderabad, India an autonomous organization under Ministry of Agriculture and Farmers Welfare, Govt. of India has been designed as Lead Institution for implementation of the program.

### **ABOUT THE INSTITUTE**

The Govt. 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: 8<sup>th</sup> March, 2007.





CSTL 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.

#### **We march ahead to fulfill following objectives:**

- ❖ Promote quality seed availability to meet the challenges of science based Agriculture.
- ❖ Making of promising Technologies reach the seed entrepreneurs and other stakeholders through innovative Trainings, Conferences & Symposia.
- ❖ Establishing uniformity in Seed production & Quality Control programs at National level.
- ❖ Innovative curriculum planning and implementation to make Seed Science & Research more vibrant and responsible to match the vision and needs of present and future.

#### **INFRASTRUCTURE**

National Seed Research and Training Centre (NSRTC) is a premier Institute for imparting National Trainings, Workshops, Conference etc. on seed with a state of art Central Seed Testing Laboratory (CSTL). It is situated under greater periphery of the pious city Varanasi and well connected by Air, Rail and Road.

NSRTC possess all the necessary infrastructure and facilities with total built up area of nearly 3.7 acres along with an exclusive 10.0 acres farm and green house facility for conducting field experiments and grow out test (GOT) which is at par with the International Institutes.



Training Facilities: NSRTC has Seminar Hall, Conference room and Library.

Central Seed Testing Laboratory: It has full-fledged Modern Seed Testing Laboratory which functions as Central Seed Testing Laboratory provided under clause 4(1) of the seed Act, 1966. Central Seed Testing Laboratory performs quality check on all notified State Seed

Testing Laboratories across the country. Presently CSTL is testing approximately 20,000 seed samples per year and performs at par with ISTA (International Seed Testing Association) with regard to germination test. The Central Seed Testing Laboratory act as a

Referral Laboratory for court referred seed samples. In addition, CSTL monitor the market seed through procurement of the samples from various seed selling points and its testing. CSTL is a member laboratory of ISTA and is undergoing PT programme of ISTA for accreditation. NSRTC is conducting National trainings, workshop & Congress for officials working in seed Certification Agencies Seed testing Lab., Seed Law Enforcement Agencies, Agriculture Universities & other institute dealing with the seeds.

Seed Processing Unit: Housed with all post-harvest handling and seed quality enhancement machinery and equipment.

Green House: NSRTC has an exclusive 10 acres farm areas including green house for conducting field experiments & grow out tests in off season.

Training Hostel: Having Lounge, Recreation and dining facilities, 60 person's occupancy room with other common facilities.

Staff quarters: There is provision of staff quarters for permanent staffs in the campus.

Other Facilities: There are Overhead Water Tank with one lakh litres water storage capacity and surface level water storage tank for farm, Service block consisting centralized A/C plant room, civil & electrical maintenance room and Generator room with 125 & 380 KVA Genset to ensure uninterrupted power supply round the clock.





**Title** : International Training Program on “Seed production, Processing and Commercialization”

**Date & Venue** : 8<sup>th</sup> -22<sup>nd</sup> January, 2019, National Seed Research & Training Centre Varanasi, Uttar Pradesh

**Duration** : 15 days

**Course Coordinator:** Dr. Arvind N. Singh, Director,  
National Seed Research & Training Centre (NSRTC)

## BACKGROUND

Seeds are the foundation of agriculture. Technology has modernized much of farming's day-to-day operations, but without a steady supply of high-quality seed, yields and crop quality would be greatly decreased. Seed quality plays an important role in the production of agronomic and horticultural crops. Characteristics such as trueness to variety, germination percentage, purity, vigor, and appearance are important to farmers planting crops. Achieving and maintaining high seed quality is the goal of every professional seed producer

Seed processing is a vital part of the seed production needed to move the improved genetic materials of the plant breeder into commercial channels for feeding the rapidly expanding world population. The farmer must get the quality seed that is free from all undesired materials because farmer's entire crop depends on it.

Seed certification is a process designed to maintain and make available to the general public continuous supply of high quality seeds and propagating materials of notified kinds and varieties of crops, so grown and distributed to ensure the physical identity and genetic purity. Seed certification is a legally sanctioned system for quality control of seed multiplication and production. The end user need a wide product choice and seed industry today is set to work with a 'farmer centric' approach and is market driven. However, there is an urgent need for Seed production agencies to transform themselves in tune with the industry in terms of infrastructure, technologies, approach and the management culture to be able to survive in the competitive market and to enhance their contribution in the national endeavour of increasing food production to attain food & nutritional security.

The course covers a wide range of seed science and technology issues related to production of high quality seeds, processing, testing, certification, quality control, seed policies and regulations, variety release and registration, seed quality management in seed multiplication systems, seed storage, marketing and distribution, field and laboratory techniques in seed quality assurance and seed business management.

In this context, National Seed Research & Training Centre, Varanasi is organizing an International Training Programme on “**Seed production, Processing and Commercialization**” from **8<sup>th</sup> January to 22<sup>nd</sup> January, 2019** at National Seed Research & Training Centre (NSRTC), Varanasi, Uttar Pradesh, India.

## **PROGRAM GOAL**

The training programme on Seed production, Processing and Commercialization is designed to provide in-depth knowledge in quality Seed production and how to plan suitable marketing strategies to personnel who are involved in Seed Development and Quality control programme and stakeholders of seed Industry. The programme will build capacity of the participants on the areas related to seed production, processing, testing, certification, Quality control and marketing.

## **OBJECTIVES OF THE PROGRAM**

- ❖ Build capacity of officers, executives and managers in the area of quality Seed production.
- ❖ To bring understanding post-harvest and handling and management of seeds.
- ❖ To bring understanding on importance of seed testing.
- ❖ Bring awareness about the opportunities and challenges in seed certification and Quality control.
- ❖ To bring understanding of market information and marketing decision.
- ❖ Provide exposure to best marketing practices and in ensuring food safety, managing seed supply chains.

## **KEY COMPONENT OF THE PROGRAMME:**

The programme is designed around the following themes:-

- Quality Seed Production
- Post-harvest and handling and management of seeds
- Seed Testing
- Seed Certification and Quality Control
- Seed Marketing
- Public Private Partnership and Entrepreneurship development.

## **LEARNING METHODOLOGY**

The sessions will be delivered through lectures, group discussions, case studies, and field visits. The program design will be highly participatory. Each participant will be expected to contribute ideas and take part in group activities. The participants will work in small groups to undertake various assignments allotted to them. Experiential learning methodology is effectively incorporated in the program. The participants will learn through group interaction, field visits, industry experts and the trainers. Each delegate will have the opportunity to share and present the current system of seed production & marketing and their experiences in their own country.



## **PARTICIPANTS**

The participants in the program would include officers, executives, managers, from government, corporate, banks and development agencies, entrepreneurs and investors from the partner countries. Instructions will be in English and participants are expected to have a good command of the language (reading, writing & speaking). Applications from women participants are particularly encouraged.

## **TRAVEL**

The expenditure towards travel from respective countries to NSRTC and return, will be borne by MANAGE.

## **Contact Details**

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