Sri Karan Narendra Agriculture University Jobner, Jaipur -303 329 (Rajasthan)

30th - January to 28th - February, 2023

Vocational Course on SEED PRODUCTION TECHNOLOGY







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Organized Jointly by

Department of Plant Breeding and Genetics (Under the aegis of NAHEP) Sri Karan Narendra Agriculture University, Jobner



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Demand and scope of the course

(a) Background: Seed is crucial and basic input to increase crop yield per unit area. The importance of seed in crop production is known to human being since Vedic period. There is clearly mentioned in ancient literature Yajurveda "May the seed viable, may the rains plentiful and may the grains ripe days and nights". History of agriculture progresses from early days is also the history of seed of new crops and varieties. The progress was very fast from last three decades. The green revolution was only possible with production of generally pure seeds possessing other qualities namely high germination, high vigours, high physical purity and sound health. Hence green revolution is in fact seed revolution. Only seeds of assured quality can be expected to respond to fertilizer and other inputs in expected manner, otherwise seed of hope may turn into seed of frustration. Among the inputs used by farmers seed is the cheapest input. It is basic input and forms small part of the total cost of cultivation. The good seed also increases the efficiency of the factors of crop production.

Availability and use of quality seeds is not a onetime affair. Sustained increase in agriculture production and productivity necessarily requires continuous development of new and improved varieties of crops and efficient system of production and supply of seeds to farmers. The National Seed Policy 2002 clearly emphasizes that "It has become evident that in order to achieve the food production targets of the future, a major effort will be required to enhance the seed replacement rates of various crops. This would require a major increase in the production of quality seeds".

(b) Course theme: It is a one month full time certificate programme. Seed production technology exists to protect farmers and their customers by ensuring that the seed they buy meets certain quality standards. All certified seed must meet prescribed standards of varietal identity, purity, germination and freedom from weed seeds. The course covers a wide range of seed science and technology issues related to production of high quality seeds of self and cross pollinated crops, 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, seed business management and other miscellaneous aspects.

(c) Self-Employment Opportunities: After getting certificate in the field of Seed Science and Technology the certificate holders can pursue their career as Consultant. They can start their own office and give advice to their clients on how to design and supervise seed production programme. Another Self-employment opportunity available for this programme is to start an agriculture entrepreneurship like seed processing units, service center etc. It is also possible for the aspirants to apply for the loan for start-up after successful completion of the course. The aspirants can pursue their career as seed producer. Besides, the candidates can make a career in various fields like seed industries, agricultural nurseries, seed processing plants etc. They can also work in NGO engaging in seed production activities and even in some government based organizations.

Topic/ Practical

- 1. Basic Principles of Quality Seed Production: Introduction, definition and importance
- 2. Causes of deterioration of crop varieties and their control. Maintenance of genetic purity during seed production
- 3. Role of Public and Private seed organisation in India
- 4. Indian Seed Sector : An Overview and Indian Seed Industry- Problems & Prospective
- 5. Seed Production System in India, varietal Release & Notification System in India
- 6. Seed certification: Procedure and OECD Varietal Certification & its importance in context to India
- 7. Seed production technique in important cereals crops
- 8. Seed production technique in important millet crops
- 9. Seed production technique in important pulses crops
- 10. Seed production technique in important oilseed crops
- 11. Seed production technique in important seed spices crops
- 12. Seed production technique in important Fruit crops
- 13. Seed production technique in important vegetables
- 14. Development, maintenance and production of A/B/R lines in important crops
- 15. Seed sampling: Principles & Procedures
- 16. Different quality test for quality seed production
- 17. Practical on Seed Testing and analysis
- 18. Field inspection and Preparation of field inspection report
- 19. Post harvest handling of quality seeds
- 20. Seed packing, tagging, labeling and transportation for selling
- 21. Influence of Abiotic & Biotic Factors on Seed Quality
- 22. Seed handling and storage
- 23. Seed distribution/marketing
- 24. Indian seeds act and enforcement and jurisdiction- Seed law
- 25. Overview of PPV & FR Act, 2001
- 26. Visit to seed production farms
- 27. Visit to seed testing laboratories
- 28. Visit to seed processing plant
- 29. Visit to seed processing plant and hi-tech nursery
- 30. Evaluation and Closing ceremony

Contact us:

For any query regarding the course one may contact to the following E-mail address and mobile numbers Email: <u>pi.nahep@sknau.ac.in</u>, <u>hod.pbg@sknau.ac.in</u> Contact Number: +91-77371 14902, +91-94685 63256



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