



# **Virtual Event- Regional Training Course on Plant Mutation Breeding and Associated Biotechnologies**

**Hosted by**

The International Atomic Energy Agency  
IAEA Headquarters

**6 to 10 December 2021**

**Ref. No.: RER5024 -EVT2104477**

## **Information Sheet**

### **Purpose**

The purpose of the virtual event is to provide training in plant mutation breeding and associated biotechnologies to a team of participants from interested Member States involved in regional TC Project RER5024.

### **Working Language**

The working language(s) of the event will be **English**.

### **Deadline for Nominations**

Nominations received after **5 November 2021** will not be considered.

## **Project Background**

The TC project RER5024 is aimed at increasing production of main crops (legumes, cereals and other important food crops) in Europe and Central Asia. For this nuclear technology will be used for generating new beneficial mutations with improved lines and varieties. Increasing drought and salt tolerance is the target of the project, together with increase of productivity and other traits available.

The overall objective of the project is to support the production of major food crops with higher yields, improved quality and better resilience to climate change through mutation breeding and combined biotechnologies to contribute to food security Europe and Central Asia. The expected outcome is the enhanced productivity and resilience to climate change of major food crops in the region.

## **Scope and Nature**

The virtual training course will cover the following components, and deal with mutation breeding using gamma ray irradiation:

- a) Mutation breeding in seed crops
- b) Mutation breeding in vegetative crops
- c) Conducting radiosensitivity assays, determining optimum dose, generation advancement, selection
- d) Efficiency-enhancing techniques in mutation breeding
  - I. Molecular marker assisted selection
  - II. Doubled haploidy
  - III. Rapid cycling
  - IV. Shuttle breeding
- b) Mutagenesis of tissue and cell cultures

## **Participation**

The virtual event is open to qualified candidates from interested Member States participating in the TC Project RER5024.

## **Participants' Qualifications and Experience**

Nominated candidates are expected to have at least undergraduate degree in plant biology. Preferably, candidates should have educational background in plant breeding and genetics while experience in plant mutation breeding would be an asset.

# Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (<https://intouchplus.iaea.org>) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (<https://websso.iaea.org/IM/UserRegistrationPage.aspx>) before proceeding with the event application process below.
2. On the InTouch + platform, the candidate must:
  - a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
  - b. Search for the relevant technical cooperation event (EVT2104477) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

**NOTE:** Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

For additional support on how to apply for an event, please refer to the [InTouch+ Help page](#). Any issues or queries related to InTouch+ can be addressed to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

Should online application submission not be possible, candidates may download the nomination form for the training course from the [IAEA website](#).

## Administrative and Financial Arrangements

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

## Disclaimer of Liability

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in approving his/her participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

## IAEA Contacts

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