



Regional Training Course on Experimental Design and Contemporary Data Analysis Approaches for Mutant Population Improvement

Hosted by

The Government of North Macedonia

through the

Ss. Cyril and Methodius University; Faculty of Agricultural Sciences and Food

Skopje, North Macedonia

9 to 20 November 2026

Ref. No.: TN-RER5030-2602741

Information Sheet

Purpose

The purpose of the event is to train the participants in statistical rigor in field testing for the selection of improved varieties, experimental design, and statistical analysis for application in mutation breeding programmes, as well as in the practical application of statistical methodologies and the use of open-source software for analysing field experimental data in single- and multi-location trials.

Working Language(s)

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

Deadline for Nominations

Nominations received after **31 July 2026** will not be considered.

Project Background

This regional project brings together Member States across Europe and Central Asia to strengthen food security, agricultural sustainability, and climate resilience through the strategic application of nuclear and isotopic technologies. Addressing shared challenges such as climate change, soil degradation, and food safety risks, the initiative promotes science-based solutions aligned with national priorities, the Sustainable Development Goals, and the European Green Deal. Focusing on crop production, agriculture water and soil management, livestock production, and food safety, the project enhances technical capacities, supports resilient agrifood systems, and improves the quality and safety of food production through coordinated capacity building, laboratory strengthening, and regional cooperation

Scope and Nature

This training course will provide lectures, case studies and practical demonstrations (software use) related to experimental design for early and advanced generation testing; data recording, and statistical analysis of field experiments for mutant populations advancement, multilocation trials, GxE, stability analysis, an artificial intelligence application in agriculture using open-source software. Discussion between participants and the trainer will be encouraged. Participants will work with their own data with support of the trainers and present their results. Participants will be tested at the end of the training.

Participation

This course is open to a maximum of 30 participants.

Participants' Qualifications and Experience

The participants should be plant breeders, agronomists, biologists, or plant pathologists that are currently conducting research in crop mutation breeding or interested in initiating the use of nuclear techniques to induce mutations for plant breeding. They could be working in national research institutes or the academy. Participants should bring a laptop and able to download and run open-source software for statistical analysis.

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. Download and complete the [Designation of Beneficiary and Emergency Contact Form](#), and upload to InTouch+ ('Profile' tab under the personal section) specifying the document name. If already provided, kindly discard this step; and
 - c. Search for the relevant technical cooperation event (EVT2602741) 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.

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

NOTE: A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

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.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency AX Travel Management, or a travel allowance, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

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.

Note for female participants

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

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