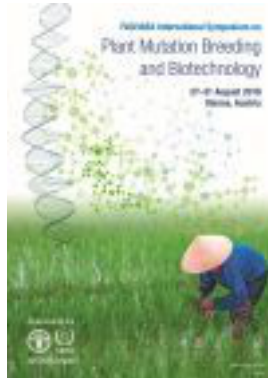


# **FAO/IAEA International Symposium on Plant Mutation Breeding and Biotechnology**



**Monday, August 27, 2018 - Friday, August 31, 2018**

**IAEA, Vienna**

## **Scientific Program**

The purpose of the symposium is to review achievements, new developments, trends and challenges in the field of plant mutation breeding and biotechnology, and to foster a broad exchange of information within the scientific community, as well as between the scientific community and the private sector.

The symposium will highlight specific challenges faced by Member States, such as emerging transboundary threats to crop production, and will also assess the overall importance of mutation breeding to food security.

The symposium will focus on new developments in induced mutation, genetics/genomics, molecular biology and biotechnology applied to plant breeding.

The FAO/IAEA International Symposium on Plant Mutation Breeding and Biotechnology will cover the following scientific topics:

## **Contribution and impact of mutant varieties on food security**

Socio-economic impact of mutant varieties

Released mutant varieties and their dissemination and adoption by farmers

## **Mutation breeding for adaptation to climate change in seed propagated crops**

Breeding for abiotic stress tolerance

Breeding for biotic stress resistance

Breeding for yield and quality improvement in crops

Advances in *in vitro* techniques applied in seed propagated crops

Breeding for enhanced resource use efficiency (land, water, NUE, etc.)

## **Enhancing agricultural biodiversity through new mutation induction techniques**

Advances in mutation induction technologies (chemical, physical: ion beam, x-ray, gamma ray etc.)

Harnessing endogenous DNA elements for inducing mutations

Enhancing crop genetic diversity through mutation induction (pre-breeding)

## **Mutation breeding for ornamental and vegetatively propagated crops**

Breeding in vegetatively propagated crop and trees

Breeding in ornamental plants

Advances in *in vitro* techniques applied in vegetatively propagated plants

## **New challenges and technologies in plant genomics and breeding**

High throughput techniques for genotyping and phenotyping

Mutation discovery and functional genomics

Genomic and marker assisted selection

Plant genome editing technologies (emerging trends and new opportunities)