

## NOTICE

### SYMPOSIUM ANNOUNCEMENT

#### INTERNATIONAL SYMPOSIUM ON NUCLEAR TECHNIQUES AND IN-VITRO CULTURE FOR PLANT IMPROVEMENT

Vienna, Austria  
19 — 23 August 1985

ORGANIZED BY THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
AND THE INTERNATIONAL ATOMIC ENERGY AGENCY

Biotechnology and genetic engineering currently receive a great deal of attention. One most interesting application is to develop plant cultivars with improved genetic characteristics giving higher yields, better quality products, more resistance to pathogens and tolerance to pests, better adaptation to stress environments and more economic returns to the crop producing farmer. These are the same aims plant breeders followed so far using tools such as selection, cross breeding and mutation induction. In-vitro culture techniques offer additional prospects for achieving such aims, e.g., because they allow to handle much larger populations under standardized conditions. Progress in using mutation induction for plant improvement, on the other hand, is restricted by the required large scale selection under field conditions. Although plant breeders have used mutation breeding successfully, more can be expected if in-vitro techniques are combined with mutation breeding.

The list of topics includes among others the following items:

- Genetic variability in plant material during or after in-vitro culture
- Application of mutagens before or during in-vitro culture
- Selection of mutants under in-vitro conditions including the possible use of tracer techniques
- Gene expression and gene interaction in the cultured cell versus the whole plant
- Use of haploids in mutation research and breeding
- Use of induced mutants as markers in genetic engineering
- Use of radiation or tracer techniques in connection with in-vitro somatic hybridization, chromosome reconstruction, transformation and other of genetic engineering
- In-vitro studies on symbiotic or parasitic systems using mutant plants and microorganisms or tracer techniques
- Protection of in-vitro cultured plant material against undesired genetic alterations (in-vitro germplasm preservation)

The symposium intends to review current state of technology in this rapidly developing field and offer an opportunity for scientists from FAO and IAEA Member States to exchange knowledge and experiences.

Further information may be requested from the IAEA Conference Section or the Scientific Secretary, Dr. Alexander Micke, Joint FAO/IAEA Division, P. O. Box 100, A-1400 Vienna, Austria