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BOOK REVIEW

PLANT DOMESTICATION BY INDUCED MUTATIONS. – Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture. International Atomic Energy Agency, Vienna 1989. 199 pp. Austr. Sch. 500.–.

As stated in this publication, of the approximately 200 000 species of flowering plants known, about 3000 were used by man for food, fibre, spices etc. and only 200 were domesticated. Examples of fairly recent domestication are sugar beet, rubber and oil palm. The objective of this publication, based on reports of the Joint FAO/IAEA meeting held in Vienna 1985, was to discuss the possibility of applying modern mutagenic techniques for accelerating the process of domestication of crop plants. The introductory papers discuss the role of mutations of major genes and polygenes in domestication. The following papers deal with the role of cytogenetics, e.g. monitoring and adjustment of auto and allopolyploidy, introduction of alien chromosome segments by meiotic manipulation and with the main activities of gene banks (exploration, collection, multiplication and, characterization of plant resources). The core of the publication focuses on problems connected with domestications of special groups of plants; fruit trees, cereals, medicinal plants, *Brassica*, *Cuphea*, *Vigna*, *Phaseolus*. The publication is concluded by recommendations of the Advisory Group on procedures and needs in domestication, e.g. assessment of existing genetic resources, identification of potentially useful types, assessing basic agronomic requirements, special breeding methods and the cellular and molecular genetic manipulation.

All those concerned with plant breeding will find a stimulating amount of material.

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