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**Book reviews**


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**Mayo, O.: The theory of plant breeding.** Oxford: Oxford University Press 1980. xiii+293 pp., several figs., several tabs. Hard bound \$ 30.00.

This book will be widely used by postgraduate students, university teachers and practising plant breeders, as a source of information about the present state of development of genetical theory in plant breeding. A very wide range of topics is included, the major chapter headings being: – objectives; experimental methods; basic quantitative genetics; variation; interaction between genotype and environment; response to selection; reproductive systems; heterosis; selection methods for self-fertilizing crops; induced mutation; disease resistance; somatic cell genetics; further cytogenetical manipulation; perennial crops; conservation of germplasm; and plant breeding strategy.

The presentation is demanding of the reader, assuming some algebraic sophistication and a strong background in genetics, though an excellent glossary is provided. No attempt is made to deal exhaustively with any given subject, but rather to provide an entrée to the important current and classical literature, which will need to be consulted for a full understanding.

The conclusions reached by Dr. Mayo in some chapters will not necessarily be accepted by all informed readers, the author's intention clearly being to provoke thought and raise important questions, rather than always to tread on safe ground. The book could therefore ideally be used as the basis of a series of group discussions, with participants filling in the detailed background from the original articles, and presenting numerical examples to aid those who find difficulty in working always at the algebraic level. In this respect the book differs from other recent texts such as Simmonds' "Principles of Crop Improvement", and Falconer's "Introduction to Quantitative Genetics", which are designed to be far more self-contained, but are necessarily less ambitious. Dr. Mayo's book will complement rather than compete with these and other standard texts.

B. D. H. Latter, Sydney

**Mooney, P.R.: Saat-Multis und Welthunger. Wie die Konzerne die Nahrungsschätze der Welt plündern.** Hamburg: Rowohlt 1981. 171 pp., 17 tabs. (4 Karten). Soft bound DM 8,80.

This booklet is the German translation of the 1979 published "Seed of the Earth" by the Canadian Council for International Co-operation, Ottawa. It is divided into three parts: Seeds, "Seed revolution" and Plant breeders' rights. The appendix gives a survey on the engagement of international groups in plant breeding. The German edition includes an interview with the German plant breeder W. Oltmann on the problems of plant breeding from the German point of view.

In the first part the danger of gene erosion of wild plants is discussed. Indeed, the problem cannot be underestimated. However, the work of the practical plant breeder tends to reduce rather than to increase this danger.

The second part deals with the possibility that the international "multis" could in future control the seed market of our main food crops by producing only a few varieties. However, to feed the increasing number of people in the world well adapted varieties are necessary. To obtain such varieties adapted to the different ecological areas of the developing countries it is necessary to establish effective regional plant breeding organizations in these countries. This would be the best protection against the influence of foreign plant breeding companies. Such a local plant breeding structure could then take care of the important task of collection and conservation of germ plasm resources in these countries. This would be the best protection against gene erosion.

The third part of the book is concerned with protective legislation and its influence on the diversity of varieties and the erosion of germ plasm especially in developing countries.

In the interest of the very serious problems that are dealt with the reviewer would have hoped for a less emotional discussion throughout the book. The interview in the appendix seems to be a right step in that direction.

G. Wricke, Hannover