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Schlegel, R.H.J.: **Concise Encyclopedia of Crop Development.** Institutions, Persons, Theories, Methods and History. - Haworth Food & Agricultural Products PressTM, an Imprint of the Haworth Press, Inc., New York 2007. 331 pp. USD 139.95. ISBN 978-1-56022-146-3.

Plant breeding is an activity that is closely related to history and people's livelihoods, even if they do not realise it! The concise encyclopedia presented here calls the attention of the public to this fact. The author, a professor of cytogenetics and plant breeding, recognizes the need for such a comprehensive document, which depicts the long and really exciting story of how plant breeding activities have developed alongside civilization since the first steps towards the transformation of wild plants into crops took place ten or so thousands of years ago.

The main content of the encyclopedia is well arranged into six chapters, followed by some additional information (Notes, Glossary, Bibliography and Index).

In Chapter 1 (Introduction) the reader is given an explanation of the way crop plants appeared on the earth. A comprehensive Chapter 2 (10 000 Years of Crop Improvement) follows, telling the history of plant breeding. Despite the fact that the greatest achievements of plant breeding occurred after the 'scientific approach' was introduced, following the re-discovery of Mendel's laws, we learn about evidence of systematic approaches, and even about artificial pollination, in ancient times. Reading this chapter provides an overview concerning the contributions of different human cultures to the breeding process.

Chapter 3 (Mendel's Contribution to Inheritance and Breeding) is the largest part of the book. At the beginning of 20th century the start of the new scientific discipline called "genetics" brought about a rapid development and diversification of the methodical approaches to plant

breeding. In this period the breeder's interests became interwoven with scientific views and terms like "green revolution" appeared. The utilization of mathematics and computation techniques accelerated immensely the progress in understanding, and in the application, of genetic rules.

Chapter 4 (Biotechnology, Genetic Engineering, and Plant Improvement) presents a concise compendium of the newest approaches in genetics and their application to plant breeding. Twenty-one *in vitro* techniques are listed that are utilized in plant breeding and in the production, rescue and conservation of plant materials. Many molecular methods based on the PCR technique have been developed and applied as "Marker-Assisted Selection", and transgenic crop plants have been obtained following "plant transformation".

Chapter 5 (Intellectual Property Rights, Plant Variety Protection, and Patenting) gives a brief but useful overview concerning the legal context of modern breeding activities as considered in different countries. Legal conditions have become a very important background for further development, and particularly in the application of advanced genetic techniques.

Chapter 6 (In the Service of CERES – a Gallery of Breeders, Geneticists, and Persons Associated with Crop Improvement and Plant Breeding) presents a list of many people connected with the history of plant breeding.

The book offers a very pleasant read and a nice overview of the history of plant breeding to any person interested in this subject: student, teacher, breeder or scientist.

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