

REVIEW

J.F. HANCOCK: **Plant Evolution and the Origin of Crop Species, 2nd ed.** CABI Publishing, 2004. x, 313 pp., illus. ISBN 0-85199-685-X. Price: USD 100.

This book has been written for advanced undergraduates and graduate students in the biological sciences. It is arranged in two parts: the first covers in 5 chapters the genetic mechanisms associated with plant evolution, without any specific reference to natural and crop evolution. The second part comprises 7 chapters and deals with the domestication process and the origin of crop species, focusing on when and where crops were domesticated and the types of changes associated with their domestication. This part starts with an overview of the emergence and diffusion of agriculture, and the ways species were changed during domestication. Subsequently a number of commodity groups are treated in more detail, highlighting the mechanisms presented in Part 1.

In Part 1 general evolutionary principles are described like in every botanical textbook. However, the examples given are deviating from regular textbooks in focusing on cultivated plants, which makes it most informative. The discussion of the species concept, however, is a bit meagre. The chapter on speciation logically comprises a rather elaborate treatment of various aspects of hybridization, including a brief discussion of the risks of crop-weed hybridizations and GMO escapes.

Part 2 first gives an overview on the history of agriculture and plant domestication, starting with a discussion of the evolution of *Homo* and his presumed diet. The chapter on Domestication gives historical perspectives on the changes in farming practice and in the characteristics of domesticants (and its genetic background). Interestingly, the evolution of weeds is also described in general terms. The remaining chapters go into further detail with regard to the history of specific crops arranged in commodity groups. The book is concluded with a brief outlook on conserving germ-plasm for the future.

All in all I found this book most interesting, and a very good textbook for all kinds of students and scholars in botany, agricultural sciences, biodiversity issues, (pre)history and the like. It is highly recommended.

MARCO ROOS