

Kiesselbach, T.A.: **The Structure and Reproduction of Corn**. 50th Anniversary Edition. - Cold Spring Harbor Laboratory Press, Cold Spring Harbor - New York 1999. 101 pp. USD 25.00. ISBN 0-87969-556-0.

Maize (*Zea mays*, in American English is common called corn) belong to the most important crops. Between the corn is the third, after wheat and rice. Nearly 50 % of the word maize crop is harvested in the USA. There is no surprise, that in the USA the cultivation, breeding and selecting of maize have had the long tradition.

The first edition of the book, *The Structure and Reproduction of Corn* by Theodore Kiesselbach, professor in the University of Nebraska, appeared in 1949. The recent book is the reprint of that book, only a note from the publisher and an index have been added.

This rather small book (not exceeding 100 pages of text) is divided into three main topics: 1) The introductory part presents an overview of botanical and taxonomic characterization of maize. No wild plant is known from which maize could readily has been derived. *Zea mays* (tribe *Maydeae*) is morphologically compared with *Sorghum* (tribe *Andropogoneae*) as near relative tribe. Comparison of the flower morphology and life cycle (within the *Maydeae*) of maize, teosinte, *Zea tunicata*,

and *Tripsacum* spp. were done. 2) The main part of the book is devoted to development and structure of maize plant from "seed" (one seed fruit, kernel), its structure and germination to development of vegetative organs. The text is illustrated with the precise draws and microphotographs of surpassingly high quality. The following 45 pages are devoted to generative organs. Developmental structure of staminate flowers (male), pascillate flowers (female), process of pollination, fertilization, development of embryo and kernel are documented with many figures and photographs. 3) The last chapter deals with inheritance of maize. The main genetic features of maize are described: xenia, effects of maternal inheritance, chromosomal aberrations, inbreeding and heterosis. The chapter is closed with some remarks to maize breeding.

This book is worth to be read and studied as a good source of basic knowledge about maize, its development structure, and about plant anatomy at all.

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