Neuffer, M.G., Coe, E.H., Wessler, S.R.: **Mutants of Maize.** - Cold Spring Harbor Laboratory Press, New York 1997. 468 pp. USD 100.00. ISBN 0-87969-444-0.

The book presented here summarizes current knowledge of maize mutants and gives a good and comprehensive description of mutant phenotypes that can be expressed in this plant. Its main attraction consist in a large number of excellent and clearly arranged colour photographs of mutants. The book is comprised of short introduction and seven chapters and is accompanied by a good gene index and an extensive bibliography.

The Introduction gives a brief history and the present state of the Maize Genetics Cooperation together with the complete text of a Standard for Maize Genetics Nomenclature. Chapter One (The Maize Organism) begins with a pictorial description of maize plant and kernel and includes microphotographs of megasporogenesis and microsporogenesis. Also included are the pachytene DAPI map and cytological map of chromosomes, genetic maps of nuclear genes and molecular markers, and maps of plastid and mitochondrial genome. Short text describes the use of some cytogenetic tools (B-A chromosome translocations, reciprocal translocations, chromosome breaking *Ds* sites); this chapter ends with the map of the cytological breakpoints. Chapter Two (Color Plates of Mutants) is the most extensive part of the monograph. It is a collection of colour photographs of almost all well-established mutant phenotypes found in maize, arranged by chromosome position. Some examples of changes other than single gene mutations, *i.e.* chromosome abnormalities, transposable elements and other non-Mendelian inheritance are also shown. The description of the gene loci, for which there is a known mutant in maize, makes the substance of Chapter Three (Gene Descriptions). Chapter Four (Tables and Pathways) classifies the mutants into several categories according to their phenotypic effect and deals also with B-A aneuploidy and the interactions between some groups of genes. It is complemented by five diagrams of biochemical pathways. The up-to-date knowledge of the physical structure of already cloned genes is presented in Chapter Five (Cloned Genes). Two short chapters, Six (Non-Mutation Effects) and Seven (Mutagenesis) complete the book.

The monograph is a good guide in the complex world of mutant phenotypes of maize and should certainly be included in every library of maize geneticist. Due to the similarity between mutant genes described here and those studied in other plant species it can also serve as a general reference book for all scientists dealing with plant mutagenesis.

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