HYBRID MAIZE BREEDING AND SEED PRODUCTION.


This paper covered book by the well known corn breeder at the University of Illinois was written as a consequence of his work as a consultant on hybrid maize to the Plant Production Branch, Agriculture Division of the F. A. O. Hybrid corn and modern production practices revolutionized American agriculture. The post World War II period demonstrated that it could become of increasing importance in many other countries, in several of which substantial breeding programs have been initiated. The primary purpose of this book has been to provide technical workers in these areas with the principles and procedures involved in hybrid corn breeding and seed production. In this objective, the author has made a noteworthy contribution.

Much of the material was prepared initially in connection with the author's course in corn breeding which he taught at the University of Illinois. The book therefore also will be of considerable value as a text for undergraduate and graduate students in this country. There is a total of 26 chapters divided into five main parts as follows:

Part I discusses general topics such as corn in world agriculture, the corn plant, inheritance and heterosis.

Part II covers breeding and evaluation methods and systems.

Part III includes breeding for specific characters, such as yield, maturity, standability; heat, drouth, and cold tolerance; composition of plant and ear; disease and insect resistance; and sweet and popcorn improvement.

Part IV. Development and testing of hybrids, performance prediction and trials, types of experimental design and field plot techniques.

Part V. Seed production, processing, certification standards and distribution; foundation seed stock organizations, policies and legislation.

The book contains author and subject indices, a useful appendix, and an extensive bibliography of 63 pages.—N. P. Neal, Agronomy Department, University of Wisconsin.


The publication of this volume in the English language was sponsored by the Subcommittee on Taxonomy of the Actinomycetes of the Taxonomy Committee of the Society of American Bacteriologists with David Gottlieb as Chairman. It is a paper-bound volume of 165 pages, and is one of the six Russian monographs in biology that have been translated and published by the American Institute of Biological Sciences under a National Science Foundation grant.

The volume consists of 18 sections, bibliography and index, dealing with problems in the classification of antagonistic actinomycetes. Fifteen groups of these organisms are reviewed. Tables itemizing strain differences of species are numerous. Of particular interest is a table identifying the systematic position of 35 new antibiotic-producing species of actinomycetes described since 1948. The bibliography comprises 52 references. The index provides back reference citations to 108 species. The style deals systematically.

dartsev's color chart, used in the original, to Maerz and Paul's "Dictionary of Color", used in this country.

Whatever are the discussions that might stem from this volume, it provides a valuable and indispensable source of information in the study of these important organisms. The volume is beautifully organized. The translation is clear and direct. An appreciable number of new species has been added. The Sub-committee deserves high praise for sponsoring publication of this volume whereby its information is available to the scientists not able to read it in its original Russian—O. N. Allen, Professor of Bacteriology, University of Wisconsin.


Put up in an attractive hard-backed cover by the Louisiana State University School of Forestry, this excellent book is a "must" for any forester even remote from forest soils. It offers considerable insight into some of the philosophies in forest soils and related fields; and it would also be of interest to scientists in related fields. It makes a good companion reference to the First North American Forest Soils Conference Symposium issued by the Michigan State University Agricultural Experiment Station.

Thirteen of the 15 papers for the LSU symposium were written by foresters who are or have been associated, one way or another, with southern forest soils. The other two papers are by soil scientists. Eight of the authors are from Federal agencies, five are from Southern Forests, five are from Federal agencies, one is from the research industry, and one is a consulting forester.

Three of the papers are on soil properties by S. J. Metz, and Robert Zahner; six are on soil-scientists. Paul E. Lemon, Earl J. Hodgkins, M. B. Appel, Ralston, E. S. Thornton, and T. S. Cole; five papers are on research problems by E. O. Q. Maki, W. M.

It should also be of interest to scientists in related fields; and, for this reason, with this revision, the popularity earned by earlier editions of this well-known textbook should continue.—Albert S. Hunter, Pennsylvania State University, State College.