
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, drought, 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 with a prefixed description of the respective groups, an abbreviated key to the principal subdivisions and morphological and cultural description of the species are interspersed throughout the descriptions. The general perspective of the presentation is that of a taxonomic manual.

Any candid appraisal of this volume would be, at best, a personal opinion. The author's knowledge of the taxonomy is his privilege to challenge and disagree with characteristics or performances of strains with which he is familiar. One platform of challenge emanating from this volume might possibly lie in the connotations of color descriptions, however, Dr. Gause has facilitated this feature greatly by transliterating the colors from Bonn-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 comparative information in the study of these important organisms. The volume is beautifully organized. The translation is simple, concise, and direct. An appreciable number of new species are described. The Subcommittee deserves high praise for sponsoring the translation of this volume whereby its information is made available to the scientists not able to read it in its original language.—O. N. Allen, Professor of Bacteriology, University of Wisconsin.


This is the latest revision of the excellent and widely used college textbook on elementary soils first published in 1922 and long associated with the names of Lyon and Buckman and, since the revision in 1932, with the names of Lyon, Buckman, and Brady. The present revision is the work of Nyle C. Brady, Head of the Cornell University Department of Agronomy.

A new chapter on the micronutrient elements has been added, in recognition of their constantly increasing importance. The chapters dealing with weathering, clay minerals, soil pH, soil water, and soil nitrogen have been extensively revised, and some new sections have been added, to incorporate new information from research on these topics. Other chapters have been expanded to some extent by inclusion of new material. Among others, there are new sections on land capability classification, soil survey interpretation, and minimum tillage.

In the interests of simplification and added clarity about 25 figures used in the fifth edition have been replaced and as many more new figures have been added. Despite the new material, this edition is 24 pages shorter than its predecessor. Much of the reduction was achieved by elimination of extraneous words and phrases, without loss of information. This edition is easier to read and understand than the earlier ones.

With this revision, the popularity earned by earlier editions of this well-known textbook should continue undiminished.—Albert S. Hunter, Pennsylvania State University, University Park, Pa.


Put up in an attractive hard-backed cover by the Louisiana State University School of Forestry, this excellent book of 15 symposium papers is a "must" for any forester even remotely interested in soils. It offers considerable insight into some of the problems and phenomena in forest soils and related fields. In general, it should also be of interest to scientists in related fields of soils and crops. It makes a good companion reference for the volume, First North American Forest Soils Conference (1958), recently 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 were presented by soil scientists. Eight of the authors are from southern universities, five are from Federal agencies, one is from a southern university, and one is a consulting forester.

Three of the papers are on soil properties by S. A. Lytle, Louis J. Metz, and Robert Zahner; six are on soil-site evaluation by Paul E. Lemmon, Earl J. Hodgkins, M. B. Applequist, Charles W. Ralston, E. S. Thornton, and T. S. Coile; five papers are on the general subject of increasing forest productivity by Laurence C. Walker, J. F. Kraus and G. W. Bengtson, T. E. Maki, W. M. Ralston, and P. W. Fletcher, is on the subject of implementing forest soil conservation, it should also be of interest to scientists in related fields of soils and crops. It makes a good companion reference for the volume, First North American Forest Soils Conference (1958), recently issued by the Michigan State University Agricultural Experiment Station.

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Soil-site evaluation seemed to be one of the most important subjects in the symposium, and after reading these papers, the only conclusion possible is that although we have made much progress in the field of soil-site in the South, we have a continuing job of further improvement and refinement of research methods and results. In particular, we need better quantitative methods,