Book Reviews


This handsome, paperback book is full of information and recommendations which will be most valuable to farmers in Virginia and neighboring states. It is a revision of an earlier edition and was prepared in cooperation with the U.S. Department of Agriculture for the special use of the VPI Agricultural Extension Service.

Part I of the book gives recommendations for the planting and care of about 25 important crops of Virginia. Part II—General Information—covers most of the other phases of farm management: Fertilizers, Gardens, Hay, Lawns and Turfgrass, Liming, Livestock feed requirements, Certified seed, Weather, Soil Conservation, and a dozen other topics.

While a book of this length cannot begin to cover well this broad array of subjects, the average farmer will find much that is useful in the information given.

There are numerous charts and tables, as well as several color engravings showing plant nutrient deficiencies and one showing the relation of nutrient availability to soil reaction.

TRACE ELEMENT PROBLEMS IN NATURE. Edited by K. H. Schütte. University of Cape Town, Cape Town, South Africa. 56 pp. 1959.

This is a report of a special symposium held in the Botany Department, University of Cape Town, in May 1958. It is a small booklet with an introduction by H. G. Holliman and the following chapters:

Trace Elements in Nature—by K. H. Schütte
Trace Elements in Soils—by S. Amdur
Trace Elements in Plants—by W. A. Roach
Trace Elements in Man and Animals—by J. F. Brock

This symposium arose largely from the enthusiasm of Dr. Schütte and was necessary because of the small numbers of scientific personal widely scattered over a large area.

The papers are general, but contain many specific details, particularly concerning trace element deficiencies. Of particular interest is the fact that it is calculated that about 80% of the arable land in South Africa bears crops deficient in at least one trace element. The papers are very easy to read, informative and give a good clear picture of the trace element status of soils, plants, and animals in Africa.—K. C. BERGER, University of Wisconsin.

GRASSLANDS. Edited by Howard B. Sprague. Pub. No. 53 of the American Association for the Advancement of Science. 1515 Massachusetts Ave., N. W., Washington 25, D. C. 424 pp. 1959. $9.00. ($8.00 for AAAS members)

This book includes 37 of the papers presented in Section O of the American Association for the Advancement of Science meeting held in New York. These papers relating to the development of the nation’s grasslands were prepared by well-known authorities on the various aspects of forages from plant breeding to utilization.

The editor has divided the material into eight major subject-matter headings; namely, Sciences in grassland research; Production in the temperate humid regions; Engineering; Utilization and nutrition problems; Evaluation of the nutritive significance; Climatology; Crop rotation; and Range utilization management. Each section contains four or more articles on the development, use, and management of grasses and legumes for forage production.

Since it covers many phases of forage use and management, the book should be of interest to specialists and agriculturists in a number of technical fields.

Of particular interest to soil scientists are articles on role of climate and soils as they affect forages. "The Climatic Environment of Grassland presents a good resume of how climate has affected the development of grasslands and what man has done to establish grasses in unfavorable environments.

There are other papers of equal interest, and agriculturists, soil scientists, and livestock men should be interested in this book, as it is a source of good information which is usable as reference on many occasions.—S. D. BLAKELY, Soil Conservation Service, Washington, D. C.

POTATO PROCESSING by W. F. Talburt and Ora Smith. AVI Publishing Co., Inc. 7 Taylor Place, Westport, Conn. xx + 475 pp. 113 illustrations, 68 tables. 1959. $9.50 domestic; $10.50 foreign

This first book to cover all phases of potato processing was written by two principal authors and 16 "specialist" contributors. W. F. Talburt is chief of the Fruit and Vegetable Laboratory, Western Regional Research Laboratory, ARS, USDA, at Albany, Calif.; Ora Smith is Professor of Vegetable Crops at Cornell University, Ithaca, N. Y., and Director of Research, Potato Chip Institute International. The contributors represent these and nine other industry and university laboratories and research departments.

The 20 chapters in the book cover the history of potato processing, the composition, varieties, culture, diseases, nutritive value, and handling of potatoes, as well as details on ten important products obtained by various commercial processing methods. Each chapter has an extensive bibliography.

An appendix gives two analytical methods for potato constituents. The illustrations, tables, bibliographies, and index help to make this valuable book useful to those involved or interested in processing this important crop.

TABULATED INFORMATION ON TROPICAL AND SUBTROPICAL GRAIN LEGUMES. Published by Plant Protection Division, Food and Agriculture Organization of the UN, Rome, Italy. 367 pp. 1959. $3.50. (Columbia University Press, 2960 Broadway, New York 27, N. Y. and other FAO agents)

This publication brings together for the first time a wealth of information on the botanical characteristics, agronomy and utilization of some 360 tropical and sub-tropical species and varieties of grain legumes, thus representing an excellent basis for current and future improvement of varieties in Latin America, Africa south of the Sahara and Southeast Asia.

Grain legumes or pulses are those leguminous plants which produce seeds or grain used primarily as human consumption. They include groundnuts, soybeans, lentils, peas, pigeon peas, and many other types which could, if properly developed, make a great contribution to human nutrition, particularly in tropical and sub-tropical countries where diets are generally deficient in proteins, fats, and oils.

A publication such as this helps specialists in those regions to know what others possess in the way of varieties of these important crops, and to pool their knowledge and experience.

The Introduction, Acknowledgements, and other opening paragraphs are given in English, French, and Spanish. The tabulated information is in English, but French and Spanish equivalents for the headings in the various categories and items are given separately.


Other members of this technical study group which visited the Soviet Union from July 18 to August 20, 1958, were: W. H. Allaway, J. J. Bulik, M. G. Cline, W. W. Donnan, L. B. Nelson, and D. W. Thorne. General summaries and detailed descriptions are given on: soil classification and mapping, laboratory research in soil science, crop-rotation systems, bacterial fertilizers, mineral fertilizers and manure, drainage, irrigation, soil management for rice, water and wind erosion of soil, shelterbelts, and soil conservation plans on farms. Comments are also included on water conservation by winter protection, education, general status of farms, and agricultural potential. Visits to two representative farms are described in detail. This is an interesting and well written report and one that many American soil scientists will want to read.

The study group, in fact, concludes that it will become increasingly urgent for soil scientists in the United States to become familiar with Soviet soil research. The group was impressed that Soviet research scientists are better informed on the results of American research than their American counterparts are with Soviet research. Books, monographs, and journals from the United States were in evidence at many institutes. (Editor’s note: As an example, 33 copies of SSSA Proceedings are sent to Russia.)—R. DINAUER.