trials have contributed greatly to these increases. The use of potassium fertilizers in Switzerland is comparatively low as farmyard manure supplies about 90% of the need.

Flame photometry and chromatographic methods of analysis were among the subjects covered in the session on analysis. V. Morani indicated the possibilities of successive extractions in differentiating between soils with a low reserve of potassium and those with a high reserve. T. Walsh brought out some excellent points on the possibilities and limitations for bringing together this group of scientists for these objective discussions.—WERNER L. NELSON

**COTTON GROWING PROBLEMS**


This book, written by B. G. Christidis of Greece and co-authored by G. J. Harrison of this country, is a well organized treatment of present day problems that confront cotton workers.

The book has 21 chapters and includes a discussion of cotton varieties, cotton breeding, crop rotation, soil cultivation, fertilization, the cotton seed, planting, cultural methods, insect pests, diseases, and harvest. A modern treatment of additional subjects such as insecticides, chemical weed control, mechanical harvesting, irrigation practices, and chemical defoliation greatly enhance the value of the book. This book does not, however, include such subject matter as ginning, marketing, and cotton morphology, an adequate treatment of which would have made the book more valuable for classroom use.

In general, the subject matter is up-to-date, including some data which are published for the first time. The text is unique, but at times seems a bit heavily too in the experiments conducted in Greece. However, the subject matter is by no means localized. The bibliography is extensive and gives a broad coverage of the world literature on cotton. References given are sufficient for a more detailed study of cotton growing problems.

The majority of the text is readily understandable to the non-specialist, and as a result, this book is recommended to both the grower and scientist alike.—L. C. BROWN.

**WATER**

The Year Book of Agriculture 1955


The 1955 year book of the U.S.D.A. is devoted to all aspects of the subject of water. It contains 95 chapters written in nontechnical style by 149 specialists in U.S.D.A., the state agricultural colleges and experiment stations, and other private and federal agencies. Among the subjects covered are: the importance of water in history; the need for water of people, animals, and plants; weather cycles, "cloud seeding"; desalting sea water; water and erosion; care of watersheds; waters laws; flood control; water for forest and range lands; irrigation; drainage, watershed maintenance for better fishing; wetlands and water foul; dry land farming; use of waste water by industries; water for gardens and lawns; rural drinking water supplies; sewage disposal; conservation, and research. It contains many excellent illustrations and useful charts and graphs. Many members of the American Society of Agronomy and Soil Science Society of America are among the contributors. Copies are available through members of Congress or from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at $2.00 each.

**INTRODUCTION TO AGRICULTURAL ENGINEERING**


This new book, written for agricultural students and farm advisers, is conveniently divided into six parts: (1) power; (2) agriculture mechanics; (3) farm power; (4) farm machinery; (5) rural electrification; (6) processing agricultural products; (7) farm structures and conveniences; and (8) soil and water conservation engineering. The principles and the practical aspects of these various types of farm engineering are treated comprehensively. The latest developments in equipment used in production, handling, and processing of farm crops are discussed. The volume will be particularly valuable as a reference for those with a broad interest in this general field.

**PRINCIPLES OF FARM MACHINERY**


Principles of Farm Machinery is intended as a textbook for an upper-division college course in farm machinery. The book covers machinery according to the uses to which the machines are put. For example, typical chapter headings include: moldboard-type tools, disk tools, application of fertilizer, crop planting, forage chopping and handling, earth-moving equipment, and farm transport. Introductory chapters cover such topics as field capacities and cost analysis, materials of construction, and hydraulic controls and power-take-off drives. An extensive appendix treats many miscellaneous aspects of farm machinery and its use.

**TOPSOIL AND CIVILIZATION**


It is generally agreed that exploitation and depletion of natural resources are significant contributing factors to the rise and fall of civilizations throughout world history. Just how these factors came about and the extent of their development are not generally appreciated. In this book the authors attempt to analyze the entire field of world history from the point of view of man's relation to productive soil. It is in the nature of a review, being based largely upon secondary sources. This in no way minimizes the importance of the author's message. They use their survey as a graphic reminder that "The wealth and power of this great nation will decline, as they have in all past empires and civilizations, if and when these (natural) resources are depleted to the extent that they can on longer supply our needs." They examine the ancient civilizations—Egypt, Mesopotamia, Crete and Lebanon, Syria and Palestine, Greece, North Africa, Italy and Sicily, and the modern history of Western Europe and the United States. Less attention is given to Asia and the Orient. The authors recognize that historians and others might take exception to some of their interpretations. This, too, need not detract from the value of this book as a readable history, and its point of view is one which can be readily appreciated in an era of rapid prosperity in some parts of the world and hunger in others. Mr. Dale is with the U. S. Conservation Service, and Mr. Carter is director of conservation education in the Zanesville, Ohio, public schools. They have dedicated their book to David A. Aylward and Hugh H. Bennett.

**CLASSICS IN BIOLOGY**


Biologists of all levels of accomplishment will welcome this volume as a "gem". The author is founder of the Institute of Experimental Medicine of Caracas (Venezuela) University, and one of the world's distinguished physicians and biologists. He has compiled extracts from outstanding works of more than 60 writers. Each selection represents a high point of progress in the study of biology. Dr. Suner's prelatory essays themselves are of extremely high merit. The selections are grouped under the following headings: matter and energy in life; cell theory; stimulus and excitation; biocatalysts; metabolism; growth and reproduction; germ cells and soma; sexual and asexual reproduction; form and dynamics of reproduction; heredity; individual and species, preformation and epigenesis, life on earth; geography and paleontology, causation and design; reflexes, consciousness and will; and the whole and its parts.