mists who may be seeking information on the world's fuel wood consumption (about half of the total wood cut in the world is used for fuel) or the production of newspapers in Canada. April 1952 (1,527,430 tons; over half of the pages of the world's newspapers are printed on paper made in Canada) but also to the soil scientist and ecologist who may want a general view of soil and plant environment in various regions of the world.

As may be expected, any effort as ambitious as this one must, in certain of its aspects, be extremely general. From the point of view of the specialist, this may be the major fault of the book. There is a tendency for the information on some aspects to be somewhat superficial. It is highly probable, however, that the book was not intended as a source of highly specific information but, rather, was designed to present a more general picture of world forestry and its products. There are, nevertheless, statements which may cause specialists in some fields to scoff. For example, one author states that "organic materials tend to make light soils such as sands, heavier; and heavier soils such as clays, lighter." Since the author is undoubtedly referring to the textural composition of soils, anyone familiar with the bulk density values for sand, clay and organic matter would agree that his choice of terms is most unfortunate. There are a number of instances in which the discussion of the effects of forest vegetation on the soil has been somewhat confused by lack of discrimination between the organic and mineral portions of the soil profile.

Aside from this, some of the older soil scientists must be pleased to observe the progress which has been made in enlarging the appreciation of how foresters have for the role which soil plays in tree growth. This progress is quite adequately summed up in the final chapter of the book by Dr. R. P. Rosland who stresses the importance of maintenance of a fertile and healthy forest soil, for "if the soil fails, everything fails." This author goes on to point out that the real resource is the land that produces the timber and not the timber itself.

It is highly unlikely that a book which combines the talents of 33 recognized authorities and three editors can be adequately evaluated in all of its aspects by a single reviewer. Nevertheless, it is felt that this book can be strongly recommended to anyone wishing to obtain an excellent general picture of the forests of the world with regard to their species composition, ecological characteristics, and environment as well as the nature and magnitude of their products. The 54 pages of illustrations are an outstanding addition to the text.—G. K. Voier.

SOILS AND SOIL FERTILITY


This is the 2nd edition of this book, and like the 1st, is written with the needs of the student in a beginning soils course in mind. It is particularly well designed for students who take only one general course in soils. Dr. Thompson, professor of soils at Iowa State College and a teacher of 20 years' experience, has expanded this edition about 50 percent over the previous edition. The first 12 chapters were practically rewritten. Greater emphasis has been placed on soil physical properties, soil formation is discussed and diagrammed. The relationships of fertility to soil moisture is developed and water conservation and management is emphasized. Clay minerals are described in detail with emphasis on vermiculite as one of the most important clay minerals. Weathering is discussed in greater detail and the degree of weathering is related to fertility. Anion- and cation-exchange relationships are explained and the relation of lime to potassium release has been explained on the principle of the complementary ion effect. Chelates in iron nutrition and chlorine have been added to the chapter on minor elements.

The book is clear, and well illustrated with high quality figures, line drawings, and diagrams.

THE NEW REVOLUTION IN THE COTTON ECONOMY

By James H. Street. The University of North Carolina Press. 294 pp. illus. 1957. $3.50.

The factors influencing the mechanization of cotton production and the influence of mechanization on the cotton producing area are dealt with in three sections: "Why Cotton Fell Behind," "How Mechanization Took Hold," and "The Social Consequences." The author, currently Associate Professor of Economics at Rutgers University, has made a noteworthy contribution to economic history of American Agriculture in reviewing the history of upland cotton production in the first section of the book. The information contained in these two parts should be in the hands of all persons concerned with agricultural policy in the Cotton Belt. Parts 2 and 3 are no less interesting, but some errors in fact occur in part 2 which should be mentioned even though they detract little from the book. The distinction between defoliants and desiccants is not made, and one of the leading desiccants is included in a list of defoliants. Anhydrous ammonia is referred to as a hydrocarbon. Some statements in the present tense concerning men in the field are no longer correct; retirement or death of the individuals named preceded publication date by a few years. In general, however, the review of cotton mechanization to date is accurate as well as comprehensive. Reading for the future has dealt with the social consequences of mechanization in a manner that should promote understanding of changes in the South as they are influenced by a changing agricultural economy.—John M. Green.

SOIL CONSERVATION


This is a text book for use of college students. The wide range of discussion on all aspects of conservation of our soil makes it extremely valuable as a reference book. The well-selected photographs provide attractive visual aids to a clearer understanding of the text.

Part I and II bring home to the many people who have seen the effects of erosion in this country, the land, just how serious this problem can be. Many people who have seen and heard of their present day problems of food and scarcity of water now, are not likely to be so positive when they say "but it can't happen to us here in the United States." Erosion takes place whenever raindrops strike bare soil or when the wind blows dust in our faces.

The mechanics of erosion both water and wind are dealt with in detail. The reader is shown not how erosion starts but also the cumulative effects which sometimes result in total destruction of land by floods or dust storms.

The study of past results of erosion could leave a rather hopeless feeling for the future. However, there are many conservation practices that can be used to protect the soil from now on. Good conservation practices are practically synonymous with good farming.

Part III takes up the various conservation practices that can be used for protection of different kinds of soil under the many conditions of farming, ranching, orchard or truck crop production. Many of these conservation practices, especially the use of vegetation, are flexible enough to be adapted to a wide range of conditions covering soils, topography, climatic conditions, and productive use.

In a program of soil conservation covering as many varied conditions as are found in this country, the planning must be dynamic and ever changing to meet new problems.

Part IV can never be standardized. Farm and Watershed planning must successfully meet ever changing conditions. If nothing else a change of ownership brings new ideas of land use. To meet such new ideas and maintain effective conservation of soil is a never ending challenge.

Since soil conservation is such a dynamic program, many of the practices covered under Part III will need to be revisited to keep up with the changing techniques that will be developed rapidly in the future.—T. C. Maurer.

PEA VARIETIES GROWN IN FRANCE


This book is the first in a series of studies on truck crops by the National Institute of Agronomic Research of the Ministry of Agriculture of France.

In the first of two sections, the author presents general information about cultivated field peas (Pisum sativum L.). Starting with the earliest mention of peas in the world literature, the author traces the development of the species through our centuries up to the present day. A short discussion of the known facts about possible centers of origin is included, based on the geographical distribution of wild types and the study of crosses between these types.

The second part, which is by far the most voluminous, describes morphological and other characters which can be used for distinguishing varieties. More than 120 varieties commonly grown in