was used effectively through the recent war period by the Department of Agriculture to attain the needed production of certain critical crops. And, among other recommendations, he favors a good system of farm-forestry credits and inspection and management aid—such as now accompanies livestock or any other specialized agricultural credit—that would accompany farm-forestry credit.

Against the present tendency “to flood permanently much of the land that suffers from floods,” Saunderson offers “the headwater land-use approach to flood control,” presenting the alternatives, in this latter solution, ranging from land acquisition for restoration of reclaimed upstream wet lands, as natural “sponge” areas, and for afforestation of severely eroded farm lands, to the influencing of farm practices and land use by co-operative management, subsidy payments, or regulation.

Some twenty years of working with several national and regional administrative and scientific agencies in the development of land- and water-use policies and programs are brought into focus in these pages, “as objectively as possible,” says the author. His information, concepts, and arguments are not all the result of the brief moments of “crystal gazing” initially indulged in, to set the picture. Such conclusions as Saunderson draws from his overall observations and research may in some corners be considered controversial, and “colored by the author’s beliefs and philosophy.” But these conclusions are, in the main, currently acceptable to conservationists who have made the 11 western states the home base of their particular studies.

An ample bibliography, for each of the nine chapters of the book, indicates the many authoritative sources consulted; and an Index, are comprised in this newest volume on a subject fast taking hold of a conservation-minded public.—Don Bloch, U. S. Forest Service, Denver, Colorado.

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**Forage Crops**


The primary aim of the author was to write a book that would fill the need for a modern text book on forage crops. He wanted to produce one that could be used for classroom work and also as a reference by workers in agronomy.

A rather complete coverage of the most important grazing, hay and silage crops is given.

The book contains a large number of very useful tables pertaining to the establishment, management and yields of forage crops in the various parts of the United States. It is illustrated with interesting and understandable charts, figures and photographs.

The first three chapters are devoted to the history, development, geography and production of forage crops and the influence of climate and soil upon the use of these crops.

The author has done a good job in setting forth valuable information concerning many of the grasses, legumes, cereal crops and sorghum crops. He has drawn from many sources throughout the United States and the result is a rather representative treatise of the forage crops.

Two chapters deal with the identification of the grass and legume plants and seeds. Space did not permit as full a discussion of identification characteristics and pictures as would have been desirable. Emphasis is placed upon the use of grass and legumes for soil conservation and improvement. Since these
plants are used extensively for soil conservation and soil improving purposes this could well have been expanded.

The discussion of grassland farming points up the need for such a system but cites the lack of economic data on this subject.

The damaging as well as the helpful insects are discussed. Some of the major diseases of forage crops are also mentioned.

The importance of the production of adequate quantities of good forage crop seed is considered, and the centers of production, cultural methods, seed yields and methods of harvest of some of the crops are reviewed.

All of the details concerning all of the forage crops adapted for use in the various sections of the United States cannot be discussed in one publication, however, this book is more up-to-date than most and it also contains a good list of references at the conclusion of each chapter.

The author has prepared a book that is a very good reference on most of the important forage crops. Its most valuable and most extensive use will no doubt be for classroom work; however, it should also prove to be of value to the agricultural worker—W. M. Nixon, Soil Conservation Service, Fort Worth, Texas.

**Selenium**

By Sam F. Trelease (Columbia University), and O. A. Beath (University of Wyoming). 292 pages, 61 figs. 43 tables—published by the authors. 1949. $5.50

Two university professors have combined their talents and years of research to produce a thorough treatise on a western problem of interest to a wide group, no segment of which have they neglected. As told in the book's subtitle selenium is studied not only as to its geological occurrence but as to its biological effects in relation to botany, chemistry, agriculture, nutrition, and medicine. The paths of selenium from the soils, through the plants, and into the animals, is followed in detail and thoroughly documented with 287 references. Of particular interest to many range operators is the chapter on prevention and control of selenium poisoning. Although only 750 copies were printed, the book will reach and serve a wide audience from reference shelves for many years.—Alan A. Beetle, Dept. of Range Management, University of Wyoming, Laramie, Wyoming.

**Woody-Plant Seed Manual**


This manual presents information on all phases of seed handling to guide Conservationists in effective and economical seed and revegetation practices with woody plants. It is based on laboratory tests and the field work and practices of various government agencies for over 20 years.

Reliable information on seed handling is needed by those engaged in revegetation, from the rancher interested in increasing palatable shrubs on his range to public action agencies engaged in large scale revegetation for erosion control and watershed protection, wildlife food and cover, shelter belts, roadside plantings and timber production. This book supplies that information with new and complete coverage of the various phases of seed handling from the formation of the seed to sowing.

A complete study of the seed makes up Part I. Flower parts and their function