dous scope necessarily entails a voluminous compilation of information. An historical perspective is presented for each of the fifty-two recognized present-day breeds providing a background from which to view the present general problem of animal breeding. The historical review given in considerable detail is perhaps somewhat overdone even for a college text, and detracts to some extent from the emphasis placed on breed modernization. A facile expression and the straightforward, impartial breed evaluations compensate for this slight inconsistency. Each breed is treated frankly and fairly on its own merits and faults. Characteristics that need improvement are freely discussed. Distinguishing markings of the several breeds are listed. In this regard the significance of maintaining definite patterns of color markings is interestingly related. A thorough detailed description of the desired present day type is accompanied by photographs of outstanding animals. Tables effectively supplement the descriptive subject matter by listing prominent show winners, blood lines and production records. The more prominent lines of descent are clearly displayed in chart form providing a ready understanding of important genealogical sequences. Of major interest to many readers will be the distribution of the different breeds throughout the country—the specific areas to which certain breeds are particularly well adapted. The reader is brought to realize that animals must not only conform to a desired conformation and quality, but be adapted to their environment. The introduction is devoted to an explanation of the commonly used livestock terms pertaining to breeds and breeding. Particulars of livestock registration and base dates for reckoning show classifications are thoughtfully listed for handy reference.

The comprehensive subject matter of this book makes it a useful source of information for all who may be engaged in or are closely identified with the livestock industry. Breeds are an expression of the livestock population. They serve to arouse competitive interest and enthusiasm among livestock breeders and attract public attention to the animal industry. They are the media for effecting changes in characteristics necessary to meet practical economic needs. The range manager and the rancher alike will find this frank discussion of the domestic livestock breeds a source of greater insight into the problems of animal breeding and management.—E. B. Stanley, Dept. Animal Husbandry, University of Arizona, Tucson, Arizona.

**Western Land and Water Use**


Populations are not static, either in size or movement: trends are rapidly upward—and westward.

And the significant note, in this significant new volume by Mont H. Saunderson, presently chief Economist of the U. S. Forest Service’s Division of Range Management, is that westward movement.

“...Migration, apparently inevitable and inexorable, continues westward... It will mean local, regional, and national economic adjustments, which we should try to foresee, and with which both our individual planning and our national policy making must reckon.

“With the growth of population in the western states and expansion of irrigation and of industrial uses of water, full use of western water resources is now foreseen. What are these resources, and
how may they limit western growth and development?"

The answers to this two-part query he poses to himself and the reader form the basis and bulk of a book to own.

Every avenue of activity has been explored into the salients of farm and farm forestry, the livestock industry, wild lands, and timber, for the purpose of exposing their abuses, uses, and present problems. Summaries of these problems are presented, with all encumbering partisan and political matrix chipped away, a nod given to those lines of action already taken by agencies functioning in the fields of these problems. Finally, he gives the tap of approval, or plants the flag at the headwaters of that stream of activity which he feels is flowing in the proper direction.

"Nature must do much of the healing of misused western lands," he says, "and nature’s healing efforts are less tenacious in arid regions. Much of the corrective action, therefore, must come through public programs for land and water use, in recognition of the public interest in a resource-conservation problem that is now beyond the scope and the means of the farms and ranches that use the land.

"In the development of policy regarding future public or private ownership of the lands of the public domain, careful consideration should be given to their public values and their conservation needs in the public interest." This is simple restatement of the dictum of multiple-use and "greatest good to the greatest number."

The conflict emergent in the points of view concerning the management policy and the administrative organization for the management of wild lands—i.e., the multiple and functional philosophies, or "generalist" vs. "specialist" points of view—is made clear in Saunderson’s discussion of multiple-use management of wild lands. This discussion, which juggles Forest Service generalist as against Department of Interior specialist philosophies, finds Saunderson pretty definitely on the side of the generalist, since he believes that "Few, if any, of the western wild lands can be classified realistically into areas of some one primary use," except in the case of certain key areas.

In other sections of his searching survey of the land and water use of western public lands, Saunderson points out the need of "management know-how" if the "family-type stock ranch" is to endure, since the tendency latterly has been "toward large investment holdings of ranch property"—and concomitant "loss in good land use" due to its semispeculative nature. He sketches the significant "agricultural—and power-resource planning, development, and management activities" of the changing Bureau of Reclamation.

"For, with the development of the large multipurpose reclamation projects," says the author, "the control and administration of such projects carries a large measure of authority in the planning and directing of the economy of an entire region." In this connection, he makes the point too often overlooked, that "Private business enterprise has developed most of the present irrigation of the West"—nearly 90 percent of the present total acreage of its irrigated lands—but favors "planned federal reclamation projects" because they "usually have important public-interest values" not inherent to the privately undertaken projects.

The continuing drain on national timber resources causes Saunderson to recommend a strenuous program calling for continuous use, during the next several decades, of something comparable to the "Production goals" program that