RADIOISOTOPES IN BIOLOGY AND AGRICULTURE
Principles and Practice

This is an admirable volume containing a wealth of information and advice for those investigators in biology or the agricultural sciences who may be considering experimentation involving radioisotopes. The author takes a realistic viewpoint. He is not an evangelist advocating the adoption of radioisotope techniques as the panacea for all investigational difficulties in these fields. Through examples drawn from diverse fields he has attempted to explain the advantages and disadvantages inherent in the use of radioisotopes, their possibilities, and their limitations. Later chapters deal with such topics as the practical problems of health physics, the facilities required for work with plants and animals, the characteristics of selected isotopes most likely to be useful in biological studies, autoradiography, radioactivation analysis, and ancillary methods such as paper chromatography and ion exchange. The book concludes with a glossary of selected terms in nuclear science and a summary of radioisotope preparations available from the Oak Ridge National Laboratory.

The book is somewhat uneven with respect to details of procedures, and the reasons for the author's choice of procedures described fully are not always apparent. In many cases it is probable that the selection was somewhat arbitrary, but in keeping with the objective of supplying sufficient illustrative examples so that an investigator can determine the suitability of a particular procedure to his particular problem and if it is within the scope of his facilities and experience. Applications in soil science and plant physiology are perhaps less well covered than those in some other areas. Even so, this book should be of great value to soil and crop scientists contemplating work involving radioisotopes, and particularly if their problems lead them beyond the rather well-worn paths of $^{32}P$.

WATER
The Year Book of Agriculture—1955

The 1955 year book of the USDA is devoted to the subject of water. It contains 95 chapters written in technical style by 149 specialists in USDA, the colleges and experiment stations, and other pertinent agencies. Among the subjects covered are: the interplay of history; the need for water of people, plants, and weather cycles; "cloud seeding"; desalting seawater; erosion; care of watersheds; water laws; flood control; forest and range lands; irrigation; drainage; maintenance for better fishing; wetlands and waterfowl; use of waste water by industries; water for lawns; rural drinking water supplies; sewage treatment, and research. It contains many excellent useful charts and graphs. Many members of the Soil Science Society of America contributed to the volume. Copies are available from the Superintendent of Documents or from the nearest Regional Printing Office.

EL SUELO Y LOS CULTIVOS DE</el>

(The Soil and Dry-farming crops)

In the first 7 of the 28 chapters of "El Suelo y Secano" a discussion is presented of the fortunes of soils: origin, physical and chemical properties, conservation of water; principles of fertilization; and relationships. A chapter is included on land utilization techniques.

It discusses clay mineralogy, weed control, polyelectrolytes, etc. The author stresses the effectiveness of polygonal farming, seed diversification, polyelectrolytes, and improving texture, plowing and drainage, reducing evaporation, and increasing water retention. Many investigations have shown that the role of these principles has been somewhat exaggerated.

Four chapters are devoted to the botany, physiology, varieties, and cultivation of wheat. The rest of the book contains chapters on barley, oats, rye, legumes, diseases, and insect pests. Crop rotations in various dry farming regions and in farming systems, and genetic improvement of crops are discussed.

The book is a good contribution to Spanish agricultural science. Much good information can be obtained from it by farmers of dry lands.—JUAN BONNET