

consideration is given to the factors governing parasitic introductions, the utilisation of indigenous parasites, and the biological control of noxious weeds.

It only remains to say that typographical errors are few, that the illustrations, of which there are eighty-four, have been well chosen, and that there is both a general and an authors' index. The ample bibliographies at the end of each chapter will serve as a useful guide to the sources of further information.

A. E. CAMERON.

An Encyclopædia of Scientific Agriculture.

Baillière's Encyclopædia of Scientific Agriculture.

Edited by Dr. Herbert Hunter. In 2 volumes.

Vol. 1: *A-L*. Pp. xvi + 675 + plates 1-17. Vol.

2: *M-Z*. Pp. 677-1361 + plates 18-29. (London :

Baillière, Tindall and Cox, 1931.) 63s. net.

ABSTRACTING journals and periodic reviews of progress, by which the pure sciences meet the difficulty of the rapid growth of their literature, leave certain needs in agricultural science unsatisfied. In their applications to farming practice the various sciences become closely interdependent and, also, the scientific worker in agriculture must watch closely the alterations and advances in practical husbandry. Further, the practitioner, with science bearing ever more forcibly upon his activities, stands in need of a specially prepared presentation of its applications to his industry. An encyclopædia of scientific agriculture is thus a logical and timely enterprise in which the investigator, the teacher, the student, and the farmer are certain to be interested.

In forming a first judgment of an encyclopædia, one must be guided largely by the ideas upon which the work is based. The principle adopted has been to present the various branches of agriculture in the forms they have assumed under the influence of science. An acquaintance with the chief customary operations and the equipment of husbandry on the part of the reader has been assumed. With these ideas in mind there has been enlisted the help of an unquestionably authoritative body of contributors, nearly ninety in number. Supplementing the original articles of the contributors is a considerable body of descriptive matter arranged, like the articles themselves, alphabetically. Choice and composition of this descriptive matter must have been very difficult. Whether in some cases the editor may not have been too indulgent may perhaps be questioned; but it is certain that his selection will prove helpful to all the types of reader he has endeavoured to serve.

A very wide range is covered by the original articles, but certain important branches of agriculture have, by design, been excluded. Livestock is the most important of these, the reason being, here, that the breeds, management, etc., have a full, up-to-date literature of their own. Poultry, however, relatively new to commercial farming in Great Britain, is covered in all its aspects by excellent articles. To exclude animal diseases was inevitable, for a popular account would not have been in keeping with the purpose of the "Encyclopædia", while descriptions of recent advances and current problems would have unduly strained its scope. It is, perhaps, to be regretted that the important applications of physical chemistry to fungicide and spray materials has found no place.

In their writings on the soil, crop varieties, animal nutrition, fruit and vegetable crops, storage, and marketing, the contributors have assembled new knowledge for which any but the specialist would formerly have had to search through a very scattered field of publications. In not a few cases, the original articles, in addition to their value in building up the "Encyclopædia", are distinct and welcome contributions to the literature of their subject. Certain fields have been covered in which no precise applications to practice have yet emerged but in which knowledge has made important recent advances. Drought resistance and the influence of low temperatures upon plant growth are among these special cases, the inclusion of which is a great asset to the work.

Room is found for some subjects not directly suggested by the title of the "Encyclopædia". Thus certain legal enactments are included for the sound reason that these are based upon chemical or other scientific evidence. There is, too, a series of articles describing the agriculture of the British Dominions and of some of the Colonies. The importance of these stands out clearly in the light of recent research and, even more, of the present economic situation.

The merits of an encyclopædia, whether as to choice of matter or arrangement, can be gauged only by using it for reference in normal fashion over a considerable time. But a first inspection leads to the belief that the many interests comprised by the broad field of agriculture and its sciences will find in the "Encyclopædia of Scientific Agriculture" a ready and dependable source of help. The publishers are to be commended for the nature and magnitude of their enterprise and congratulated upon the hands to which they entrusted it.