

At last it is possible to give almost unqualified appreciation to a book in which the author seriously attempts to present a synthesis of modern work and ideas on nutrition, breeding and economics in relation to the management of a farm animal. From the width, and depth, of his experience as scientific worker and practical farmer, Mr. Davidson recognizes that animal husbandry is not just the sum of the components of breeding, feeding and management, but that the psychology of the animals as well as of their attendants enters into everyday problems and practices of stock-keeping. He recognizes also that the last words on any branch of husbandry are not yet said; he therefore adopts a strictly personal attitude in his treatment of data, observations and experiences, which adds to the usefulness of the book.

The scope is truly comprehensive. Part 1 reviews the general economic background of the British pig industry; it includes a series of analyses of the cost structures of pig enterprises and a particularly apt résumé of the history, and fate, of the pre-war marketing schemes for pigs and their products. Part 2, "Theoretical and Technical Considerations", brings together a mass of information on carcass qualities and trade matters, together with a valuable description of systems of carcass judging and evaluation; it gives a sensible presentation of the plain principles of nutrition, followed by a study of feeding practices, and proceeds to a discussion of the physiological, anatomical, and genetical aspects of pig improvement, and finally, to specific chapters on matters of housing and hygiene. Part 3 is devoted to critical accounts of the practical aspects of management, in which the author's experience is given as a helpful guide to the proper care and handling of pigs of all ages and stages.

The text is well and aptly illustrated by plates and diagrams; relevant data are conveniently tabulated for detailed consultation, or for neglect, at will; there is an extensive and appropriate list of references; and the index is effective. There are some, but only a few, minor typographical errors. Author and publishers have been remarkably successful in making available no mere compilation, but a work which, by reason of its judicial yet personal character and its range, sets a very high standard in literature suited to the needs of the progressive practical stockman, the agricultural student, and the scientific worker, as well as to the needs of the times. J. E. NICHOLS

816

RADON AND ITS APPLICATIONS

Radon

Its Technique and Use. By W. A. Jennings and Dr. S. Russ. (Published for the Middlesex Hospital Press.) Pp. x+222. London: John Murray, 1948.) 18s. net.

IT is a little difficult on reading this book to decide precisely for what class of reader it was designed. The treatment is, on the whole, elementary; but certain aspects of the subject, particularly those concerned with the technique of extraction, are dealt with in very great detail.

Certainly the first part of the book, where the subject of radioactivity is dealt with generally, will provide an excellent introduction to the non-specialist; and, with its clear exposition of the history of radon and its applications, it will convey to him something of the care essential in the handling of all radioactive substances.

The second part of the book is concerned with the details of the process of radon extraction. Separate chapters are devoted to the radium sources used, the extraction and purifying processes, the loading process, the measurement of gamma-ray activity and, finally, an analysis of the variation of content among groups of radon seeds. The treatment is didactic rather than critical. A wealth of detail is given of particular forms of apparatus, and a large number of numerical examples are given, illustrating methods of control and calculation. The methods described for the preparation of radon seeds are those that were used at the Radon Centre of the Medical Research Council; but little reference is made to the other method now used extensively, where the radon is led directly into gold capillary tubing.

The final section of the book deals with the medical applications of radon. Much of the classical treatment for dosage estimation with radioactive sources is given, and a number of nomograms and other types of graphical methods are described for the estimation of dose in particular techniques. A chapter on "Some Medical Considerations" is contributed by Mr. T. A. Green, whose methods of using radon are described in considerable detail. No attempt is made by the authors in this section to give a general survey of the ways in which radon is used.

Appendixes at the end of the book give some details of the recommendations of the British X-Ray and Protection Committee relating to radon, and some outline proposals for the lay-out of a National Radon Centre. Useful tables are also given of the rise with time of the gamma-ray activity of radon seeds and the hourly growth and decay of radon.

The book is well produced with clear diagrams and tables. The reviewer has noticed one or two small errors in the tables at the end. It contains much valuable information that is not collected together elsewhere; but some readers will regret that the authors chose to confine themselves to a discussion of particular methods and techniques rather than to make a comparison of methods and techniques in general.

ANTHROPOLOGY IN THE SOVIET UNION

Contributions to the Anthropology of the Soviet Union

Compiled by Henry Field. (Smithsonian Miscellaneous Collections, Vol. 110, No. 13: Publication 3947.) Pp. vii+244+5 plates. (Washington, D.C.: Smithsonian Institution, 1948.)

THIS compilation of the work of Russian archaeologists and physical anthropologists covers a period of some ten years. The author is indeed to be congratulated on producing a volume which is absolutely indispensable for all archaeologists and physical anthropologists outside the Soviet Union. One of the tragedies of the present world political situation is the lack of contact between Soviet researchers in these sciences and the rest of the world. How far any conclusions reached are coloured by their political theories of to-day cannot be discussed in this review; but certain it is that greater personal contacts would result in a greater understanding, not only of all the fine work which is being