

Illustrations are chosen primarily for their ability to make the point clear, but when possible from human genetics, or from familiar plants and animals. Throughout the book, the author's own sense of the fascination and excitement of her subject shows through the easy personal style of the writing. Occasionally the reader is explicitly restrained from incorrectly extending genetical conclusions to human racial questions. In this way the author shows her awareness of the readiness with which the human mind finds material to justify its prejudices.

More than eighty refreshingly informal drawings and diagrams by G. Auerbach Linker not only add charm and lightness to the book, but also play an essential part in supplementing the text. There are a very short list of titles for further reading, and an index. ALMA HOWARD

## THE DAIRY COW

### The Dairy Cow

Reproduction, Genetics, Nutrition, Habitat, Principal Diseases. By C. Craplet, translated by Catherine T. M. Herriott. Pp. xv+452. (London: Edward Arnold (Publishers) Ltd., 1963.) 130s.

THIS volume consists of six parts, each dealing with one of the following subjects, reproduction and lactation, artificial insemination, genetics, nutrition, housing and disease. The author is head of the Animal Husbandry Department in the Grignon School in France and the book was written first in French. It would have been helpful if the author had supplied even a short foreword to explain his object in writing the book and to state clearly for whom he intended it, but he has not done so, and one cannot help wondering if the book originated as notes on which was based a series of lectures to students taking a general but fairly elementary course in animal husbandry, the notes in some parts applying, quite naturally, more to France than to Britain, and in some parts being now somewhat out of date.

If, for example, one seeks information on iodinated protein, two page numbers are given in the index. On p. 258 the author explains that "unfortunately" experiments with iodinated protein are still in the laboratory stage, and yet on p. 71 he states that the stimulating property of thyroxine on milk secretion "has been recommended to the breeder in the form of thyroxine or iodized protein administration". Neither statement is true for Britain, where work with iodinated protein reached the applied stage some 15 years ago or more, but where the use of thyroxine or iodinated protein is not recommended to breeders.

On p. 306, guidance is given on the seeding of pastures, but under the heading of "Density" (presumably amount of seed to use per acre) the author simply states, "see modern agricultural text-books". One might feel that in a book on the dairy cow, there would be little need to deal with reseeding of pastures since pasture management, like so many subjects to-day, is becoming more and more a matter for the expert, but if pasture management is to be discussed, surely the paragraph on density could have been a little more informative.

Even the relative costs of barbed wire and electric fences are dealt with in this book on the dairy cow, but they are based on prices that prevailed, presumably in France, in 1948, fifteen years before the book was published, a period in which great changes in prices have occurred and in which the development of the electric fence has made much progress. In calculating costs the wire fence taken by the author as an example consists of five strands of barbed wire; in Britain it is usually considered sufficient if the top strand only is barbed.

Writing about the watering of cattle the author states, "In hot weather cows may drink 80 per cent more than

usual, in cold weather their intake decreases slightly, so that heating the water is a good precaution to take". It is to be hoped that any British farmer who may see this statement will not feel that he must add the heating of drinking water for cows to his numerous duties unless the water happens to be undrinkable because it is frozen.

In the section that deals with the utilization of the volatile fatty acids this curious sentence occurs, "Experimental work has revealed the facility with which tissues utilize acetic acid and this is the reason for the perfused heart of a rabbit using up more acetate per hour than glucose". But why is that *the reason*?

In discussing eradication of mastitis on p. 391, the author recommends disinfecting the udder with water sterilized with potassium chloride. This would be quite ineffective; perhaps he means sodium hypochlorite. Two pages later in dealing with staphylococcal mastitis the statement is made that "infected cows should be milked in the dry period for this will give excellent results".

Unfamiliar terms are used in discussing the chemical composition of milk, for example, "de-fatted dry extract" which presumably means solids-not-fat and "lime combined with casein", terms that must seem strange to a modern dairy chemist. There are also some irritating little mistakes. On p. 246, for example, the phrase "permanent water" is used where a piped supply of water is meant, and nutrient supply is said to equal "nutritive value of food X quality consumed"—surely a mistake for "quantity consumed". In the index the name Voisin is given as Viosin. Many workers are cited in the text but the book contains no list of references of any sort, so that the reader, unless he knows already, does not know where he can find the work cited or when it was done.

This is all most disappointing, since the dairy cow is an important subject and the publishers of this English translation have certainly produced it in a most attractive form. The whole lay-out, the type, the figures and the binding are of exceptionally high quality, so much so that a cursory glance might well suggest that the book ought to be well worth the money to a reader in Britain. Alas, such a claim would be difficult to justify. Indeed research and its application in veterinary and farm practice have advanced so far in recent years that the time may well have come when each separate part of a book like this, which ranges from genetics and physiology to housing and disease, should be written by an expert of its own. It is scarcely fair nowadays to expect one man to deal adequately with such a wide field, and in matters concerning animal husbandry what applies in one country may not necessarily apply in another.

J. A. B. SMITH

## MEDICAL BIOMETEOROLOGY

### Medical Biometeorology

Weather, Climate and the Living Organisms. By Dr. S. W. Tromp, in co-operation with 26 Contributors. Pp. xxvii + 991. (Amsterdam and London: Elsevier Publishing Company, 1963.) 120 D.fl.; 240s.; 134 D.M.

THE influence, real or imaginary, of weather on the behaviour of man and animals has been the subject of controversy and consideration by many authorities and individuals ever since the human race began to think. The scientific development of the problems, hampered though it was by contributions more conspicuous for their enthusiasm than their logic, has made rapid progress during the past decade, and the author of this volume, together with his twenty-six collaborators, have made a very welcome attempt to summarize what is now known of a very complex subject.

Dr. S. W. Tromp is head of the Bioclimatological Research Centre at Leyden in The Netherlands, and his