

may regret that the author has not gone more deeply into the biological significance of the chromosomal abnormalities described; into little-understood things such as heterochromatin or chromosomal coiling, or the whole problem of why the acrocentric chromosomes are so much more often involved than the others in rearrangements; but these matters were perhaps outside his terms of reference. The fundamental significance of this book is the sheer volume of research on which it is based. It is to be hoped that the possible computerization of chromosome analysis may enable the unit to undertake even more extensive studies in the future.

E. H. R. FORD

## QUALITY OF MILK

### Nutrition and the Composition of Milk

By Manfred Kirchgessner, Henning Friescocke and Gunter Kock. Translated from the German by Catherine T. M. Herriott. (International Monographs: Aspects of Animal and Human Nutrition.) Pp. xiv+273. (London: Crosby Lockwood and Son, Ltd., 1967.) 55s. net.

THE factors controlling the composition of cow's milk are partly of genetic and partly of environmental origin. This book is primarily concerned with one of the most important of the environmental factors, the effect on the quality of milk of different feeds and methods of feeding. In the book, which is a translation of the German edition published in 1965, the authors outline the chemistry of the major constituents of milk and present comprehensive reviews of the influence of the diet on the physical properties of milk and on the content in milk of fat, protein, minerals and vitamins. The enzymes of milk and certain anomalous constituents, including antibiotics, pesticides and radionuclides, are discussed in the final chapters. A feature of the presentation is the large number of tables of compositional data.

The several thousand references cited in the text, mostly to work published within the past twenty years, bear witness to the considerable interest in these topics. Whereas some of this work was purely observational, much of it was carried out with the important immediate practical objective of maintaining and, if possible, improving the quality and thus the nutritive value of milk, particularly through increasing the content of non-fatty solids. At the same time advances in knowledge of the influence of the diet on microbial processes within the rumen and of the physiological and biochemical processes of milk secretion have facilitated a clearer understanding of the results of feeding experiments. The authors of this book have succeeded in drawing together the threads of knowledge in discussing the reasons for the effects of diet on the composition of milk.

With its very complete bibliography this book will prove a most useful work of reference and it is a worthwhile addition to this series of monographs.

J. W. G. PORTER

## JOURNAL FOR TAXONOMISTS

### *Journal of Natural History*

An International Journal of Taxonomic and General Biology. Vol. 1, Number 1 (January-March 1967). (Formerly the *Annals and Magazine of Natural History*.) Pp. 152. Price per part 52s. 6d. (\$7.50) plus postage. Subscription per volume (4 parts) £10 (\$28.60) post free, payable in advance. (London: Taylor and Francis, Ltd., 1967.)

It was in January 1952 that the *Annals and Magazine of Natural History* first appeared without the traditional pictorial design on its blue cover and so abandoned its dedication to lovers of nature. Now, as announced to

subscribers in a letter which was enclosed with the issue of last September, it has modernized itself in the manner of several other journals, even to the extent of changing its name. There will no doubt be mixed feelings. Some taxonomists will welcome this sign that their subject merits a journal with the same general appearance as those devoted to branches of the so-called "modern" biology. Others may be sad at the passing of an old friend. Librarians, always practical people, may curse the need to find a slightly taller shelf, but will be glad that the subscription price has remained unchanged, and that the numbers will now appear quarterly by intent as well as in practice.

The old journal was "conducted" by a distinguished list of experts. The new journal is edited by only two, with one assistant and an international panel of specialist consultants. It is a pity that we are not told who these are. The editor, in a note, says that it will now be possible to accept longer papers, and that contributions are invited on more general topics as well as the shorter papers on taxonomy and morphology that were a characteristic feature of the *Annals*. Like its predecessor, the *Journal of Natural History* remains the property of the publisher and is independent of any society or institution. The typographical format has been changed, the page size enlarged and the slightly tinted, loaded paper enables illustrations to be included in the body of the text. These changes should certainly lead to economies in production and to an improvement in the reproduction of the line drawings that are the most frequent form of illustration to this sort of communication. The practice does not, however, suit half-tone plates and the author may well be dissatisfied with the one example that appears in this first number.

The contents are of a high scientific standard, and include an important addition to the series of papers by Dr Sidnie Manton on the origin of the Arthropoda. The wide range of taxonomy is indicated by the fact that the ten other authors are drawn from university departments of botany, geology and zoology and from institutes of entomology, freshwater and marine biology as well as from the traditional museums. There is no doubt that knowledge of the range and form of animals and plants remains at the root of biological science, and can be ignored by biologists only at great loss both to themselves and the subject. It is to be hoped that all true natural historians will welcome this new journal and will see to it that it is never short of material for publication.

J. W. S. PRINGLE

## ANTIBIOTICS IN THE MAKING

### Biosynthesis of Antibiotics

Vol. 1. Edited by J. F. Snell. Pp. x+234. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1966.) 80s.

THE first volume in this series provides a survey of the literature pertaining to the biogenesis of selected groups of antibiotics up to early 1966. The book is divided into six chapters, each covering a clearly defined topic, and each written by different authors. As a result, a different emphasis within each topic is readily apparent. Somewhat surprisingly the chemically more simple antibiotics such as D-cycloserine, chloramphenicol, griseofulvin, sarkomycin and L-azaserine are not dealt with as might have been expected in a first volume, especially because some of these compounds illustrate simpler versions of biogenetic pathways which are covered in the work.

The first chapter gives a rather superficial treatment of microbial processes which have been applied to the preparation of labelled antibiotics. The chapter is partly redeemed, however, by the excellent table of selected specific examples (where a strict adherence to alphabetical order would have been an improvement) and by the