

Despite these criticisms the author has done a good job in compiling a general account of the state of knowledge in rice breeding. Specialists in some of the fields surveyed may cavil at details, but many breeding programmes have reached the stage where a team approach is essential, and a broad treatment such as this is invaluable.

J. T. WALKER.

THE ARCHITECTURE OF THE GERMLASM. Verne Grant. John Wiley and Sons, London and New York. 1964. 236 pp., 44 text figures. 75s.

The book starts with Mendel's peas, moves on to chromosome structure and organisation, the action and interaction of genes and gene systems, to linkage and chromosome structural change in relation to adaptation and speciation and takes in, on the way, cytoplasmic inheritance and polygenic variation. Many of the sections are excellent. There is a particularly good and detailed account of cytoplasmic inheritance in *Oenothera* and a most helpful survey of linkage between genes of related function. On the whole, however, I found the book disappointing. It suffers mainly, I think, from an attempt to cover far too much in too little space. The result is that the treatment of many important topics is sometimes cursory to the point of being misleading. To take one example, it seems regrettable to include an account of meiosis using a two-strand model to explain chiasma formation. However expedient, the result at best could do little good and, for newcomers to the subject, might well do positive harm. Again, in the account of interchanges in *Oenothera* Renner is mentioned but nothing is said of the Renner effect which, after all, is a significant ingredient of the *Oenothera* system. There is one further criticism to make in respect of presentation, namely that there is, in places, some confusing repetition and fragmentation of subject matter. For example, the question of the mode of interaction between genes crops up in three separate chapters. There is nevertheless much that is commendable in the book. Above all the author has sifted a most varied and copious mass of evidence in a noble attempt to synthesise an up-to-date concept of the gene, that most familiar yet elusive element in biology.

H. REES.

RUSSIAN-ENGLISH BIOLOGICAL DICTIONARY. C. W. Dumbleton. Oliver & Boyd. 1964. 63s.

Biologists with some knowledge of Russian often experience difficulty in identifying genus and species names referred to in the Russian scientific literature, owing to the frequent use of vernacular expressions of the organisms mentioned. Even large general dictionaries are of very little help in this matter. C. W. Dumbleton has therefore performed a valuable service in compiling this dictionary, which contains the English and/or Latin equivalents of very many Russian species names, and in addition most of the descriptive terms likely to be encountered in reading Russian biological papers.

The reviewer noted one or two omissions, especially concerning abstract terms, e.g. жизнедеятельность, формообразование, are not mentioned.