but clear chapters deal with the role of hormones (real and postulated) in reproductive processes, and another with the work on breeding and selection for photoperiodic response. The remainder of the book takes up the various economic plants, including those of the tropics, and discusses the effects of light and temperature on flowering and also on hardiness and other characters.

A valuable feature of the book is its extensive presentation of the Russian literature. It is a pity, though perhaps unavoidable, that while sufficient description is given of the Russian experiments and results to understand them, the detail is still not enough to judge and appraise them critically. This is particularly true for the more controversial experiments of the Lysenko school, such as those purporting to show that vernalization can be inherited. Dr. Whyte seldom offers critical judgments of any of the work reported. The reviewer has been unable to find a clear answer to the question whether the yield of vernalized winter cereals is greater than that of appropriate strains of spring cereals planted under the same conditions in Russia. The lack of adoption of vernalization in most countries suggests that the answer is in the negative.

There are many fine, well-reproduced plates throughout the book. The inclusion of so much experimental material of different types will make the book of great value to plant scientists working both in the laboratory and in the field.

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Practical malariology. **Paul F. Russell, Luther S. West, and Reginald D. Manwell. (Prepared under the auspices of the Division of Medical Sciences, National Research Council.) Philadelphia-London: W. B. Saunders, 1946. Pp. xix + 684. (Illustrated.) $8.00.**

Within this fully illustrated and beautifully printed volume is to be found practically all of the basic information needed for a reasonable comprehension of malaria and its problems. If the reader is a medical historian, he will find a well-balanced digest of historical data in the first chapter. If he desires a presentation of modern concepts on the classification, life cycle, morphology, and physiology of the malaria parasites of man and lower animals, and the preparation of blood films, tissue smears, and sections for diagnosis, he will gain a wealth of useful knowledge in Section I. If he is a medical entomologist, Section II and the Appendix will provide practically all of the necessary information for application of his skills to the anopheline mosquitoes as the biological vectors of malaria. If he is a physician, Section III will give him the essentials of pathogenesis, symptomatology, and treatment. If his interest is in epidemiology, let him examine Section IV, and if it is in public health, he will obtain a great variety of practical information on prophylaxis and control of malaria in Section V. Even the syphilologist will profit from the brief presentation on therapeutic malaria in Section VI. Each of the 29 chapters is provided with an adequate, up-to-date bibliography. The subject index is fairly complete, although it is more exhaustive in page references to the parasites, e.g. species of *Plasmodium*, and the vectors, e.g. species of *Anopheles*, than to clinical aspects. The comprehensive subjects of pathology, symptomatology, diagnosis, and treatment are omitted, but clinical terms, such as "anemia," "anoxia," "blackwater fever," "cachexia," and the important organs and tissues in which pathological changes occur, are specifically referred to. Likewise, all important antimalarials, including their synonyms and trade names, are indexed.

Practical malariology reflects the training and experience of the senior author and his colleagues. The emphasis placed on the morphology and biology of the parasites and their vectors constitutes their conviction that malaria is a laboratory and field problem, and that control of the disease depends to a greater extent on these phases of the subject than on clinical malaria in the individual patient. The same viewpoint is indicated in the very short treatment given to morbidity and mortality statistics. This attitude will probably be challenged by the clinician, who will rightly argue that suppressive atabrine therapy among military forces stationed in areas of high malariousness during World War II kept the troops free of clinical malaria. Yet it must be admitted that anti-anopheline measures were even more useful, since they prevented, or at least greatly reduced, exposure to the disease. Furthermore, the senior author's success in controlling malaria in the tropics, in peace and in war, supports his major thesis that malaria must be conquered in the field rather than in the clinic. The few criticisms which the reviewer has mentioned are indeed minor when balanced against the splendid contribution to the subject which Russell, West, and Manwell have made. They, their publishers, and their sponsors deserve high commendation for this timely volume.

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Penicillin: its practical application. **Alexander Fleming. (Ed.) Philadelphia: Blakiston, 1946. Pp. x + 380. (Illustrated.) $7.00.**

Here is a good book on penicillin. Its practical application will be of interest to general practitioners as well as specialists who are interested in chemotherapy. The contents contain two sections: one, a general section of 6 chapters, dealing with the history, chemistry, pharmacy, pharmacology, bacteriology, and methods of administration; the other, a clinical section of 21 chapters, covering a wide variety of subjects, including a chapter for the general practitioner. One can find good general discussions of the subject of penicillin in almost all infections as they are treated in England. Some of the subjects are discussed in a very superficial fashion due to the lack of wide experience; this is especially true of the discussion of syphilis. One is inclined to question such statements as: "Inhalation of snuff and spray shortens the duration and diminishes complications" in acute rhinitis. On the whole, however, the book will serve as a very useful guide in using penicillin in the study of infections.

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