

helpful teaching devices—chapter summary, annotated references, problems and questions—have been up-dated and retained. Each of the fifteen chapters is concluded by a brief summary of the significant ideas; the problem and question sections include lists of terminology and graded problems which emphasize and extend the points discussed in the text; and the references include classics in the field as well as recent contributions. Though the annotations for the references will prove to be a worthwhile guide, certain ones might just as well have been omitted, e.g., “‘Transformed Bacteria’ . . . (a description of transformation.)” and “‘Transduction in Bacteria’ . . . (a description of transduction).”

The number of chapters has been reduced with a rather general reorganization. The chapters on plant breeding and animal productivity have been omitted from the second edition as has the chapter on genetics and evolution; though these concepts have been well integrated with other material at pertinent locations throughout the book.

This reviewer was somewhat disturbed by the authors’ interjections of personal admonishments to the reader which seem to break the train of thought, rather than guide it.

The book is well designed for a very thorough introductory course and, as such, would not be a suitable text for the more elementary or superficial survey courses. It is an extremely clear and fascinating presentation which will stimulate the serious student and serve as a valuable reference for the teacher.

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GENETICS, Rev. Ed., Hans Kalmus, 253 pp., \$1.45, Doubleday and Co., Inc., Garden City, New York, 1964.

This is a well-written paperback intended to present genetics in an up-to-date manner for those people who desire to know more about this interesting subject. It should prove helpful to biology teachers who have not had a course in genetics recently. Some of the better high school biology students may learn quite a bit from this book, but for the majority, the book would be too difficult.

Molecular genetics is treated well, but the concept of DNA would have been easier to understand if more drawings had been included.

The book has a glossary which the students and teachers should find useful.

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GENETICS IN THE ATOMIC AGE, Charlotte Auerbach, 111 pp., \$2.50, Oxford University Press, New York, 1965.

This book must be evaluated in the light of its stated purpose: To provide the non-scientist with a rational basis for evaluating one of the major problems confronting man today—atomic radiation, its effect on the mutation rate, and the nature of the mutations induced. In a democratic country such as that of the author (Great Britain) as well as in our own, every citizen has the moral responsibility to inform himself relative to such problems and then to formulate his own opinion as to how to deal with the problem. Dr. Auerbach states that her book is “. . . intended to help the reader in this task by putting before him a brief and simple review of the biological findings which must form the basis of any such judgment.”

In order to accomplish this goal among non-biologists, much fundamental biology must be simply presented. Thus, the first seven chapters (69 pp.) deal in a very lucid fashion, using the minimum of terminology and omitting Punnett squares and Mendelian ratios, with reproduction, mutation, heredity, meiosis, Mendelism, sex determination, and similar basic material. It is remarkable how a skillful writer can accurately present the fundamental principles of a complex discipline in such a simple way, using the minimum of technical vocabulary. For those interested in the art of good teaching this book has its own cryptic message!

Once this foundation of basic biology is in place, the author turns in the remaining two chapters (some 35 pp.) to the problems of “The Production of Mutations by X-Rays” (chapter 8) and “The ‘Genetically Permissible’ Dose of Radiation” (chapter 9). It is in these chapters that reader notes the author’s familiarity with the field of radiation genetics, her acquaintance with current research in that field, and ultimately her own conviction that man’s future will indeed be blighted by an increased genetic load of deleterious, radiation-induced mutations unless atomic and X-radiation are wisely controlled.

For those who wish to pursue the subject in a more formal fashion, the book concludes with an appendix of common scientific terms used in connection with the study of Mendelism and with references to official reports on radiation hazards. The book contains simple line drawings prepared by the author’s sister. Generally these drawings are adequate, frequently they are humorous, and occasionally they give evidence of real inspiration.

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