

methods which have as yet no place in the early stages of mathematical teaching. This volume aims at making some of the outstanding results of mathematical genetics intelligible to readers who need assistance before they can consult the original publications with profit and understanding. It is based on a course of lectures delivered to postgraduate students in the Genetics Department of the University of Wisconsin in the winter of 1940."

The headings of the eight chapters and the two appendices follow: Gene frequencies, genotypic frequencies, and systems of mating; Basic types of algebraic series in genetical theory; First steps in the calculus of finite differences; Binomial series; Non-assortative mating in the absence of selection or mutation; Selection; Assortative mating and consanguinity; Mutation pressure and isolate effects; Significance tests for Mendelian ratios; The estimation of linkage and determination of variance formulas for gene-frequency analysis by the method of maximum likelihood.

A knowledge of the fundamentals of genetics is assumed. The book consists pri-

marily in the derivation of mathematical equations for certain genetic principles. It will, no doubt, be useful chiefly to professional geneticists and to graduate students in genetics. Many of the sections are followed by lists of problems. There is an Index. The paper, printing, and binding are of good quality.

EDWARD C. COLIN,  
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BENNETT, HUGH HAMMOND. *Elements of Soil Conservation*. 1st ed. McGraw-Hill Book Company, Inc., New York. x + 406 pp. illus. 1947. \$3.20.

A book like this should be in use rather continuously, not just during a brief unit on conservation. Here are a few suggestions which may help keep dust off its covers—dust from the fields of Texas:

1. Raise the question of "mining the subsoil" as a source of plant nutrients. On a field trip collect in flower pots matched samples of topsoil and subsoil for comparing the growth of corn or oats seedlings; note also the effect of drying on the samples. Use *Elements of*

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Articles are scheduled for publication in approximately the order of acceptance of the manuscripts. Generally the journal is tentatively arranged about three or four issues ahead, and there are under consideration at any time enough manuscripts for about two or three more issues. Some space is of course allowed for news items and articles of a seasonal nature. On the average, a manuscript submitted this month may expect to find its way into print, if it is accepted promptly, in about February or March. Many seasonal papers have to be postponed an entire year, simply because the author has not allowed the necessary four to six months that intervenes between acceptance and publication.

For details concerning titling, headings, references, illustrations, etc., consult *Preparation of Manuscripts for Publication*, which appeared in the October, 1943, issue of *THE AMERICAN BIOLOGY TEACHER*. A limited number of reprints is still available; copies may be obtained from the editor.

Manuscripts may be sent to the editor-in-chief or to any one of the associate editors. A complete list of the latter appears in each October and February issue.

Soil Conservation to collaborate the findings.  
2. With a balopticon, project pictures and maps from the book to enhance discussion problems.

3. Have students use statistics, such as those showing the effect of tillage on runoff, in preparing conservation cartoons or posters. It will add zest if they are done on small cards, then projected on the screen; unexpected talent will turn up in most classes.

4. Get into some of the "hows" and "whys" not found in most texts. Example: How does muddy water reduce the amount of moisture available to plants?

5. Investigate local erosion problems on field trips. Use the book in determining the best treatment.

While much of the information in *Elements of Soil Conservation* is available in low-cost bulletins, there is considerable advantage in having this excellent material in compact form, under a single index.

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*Ames, Iowa*

COLIN, EDWARD C. *Elements of Genetics*.  
2nd ed. The Blakiston Co., Philadelphia,  
Pa. 402 pp. 90 illus. 1946. \$3.50.

This attractive, convenient-sized and carefully written book is a revision of Dr. Colin's well-received 1941 textbook for beginning students in college genetics. It follows the historical approach of the first edition, and further expands the applications of Mendelian principles to man and his environment. Some who use it will no doubt feel that too much space is devoted to historical background and human applications in a book which, by its title and preface statements, is obviously designed to emphasize fundamentals.

The text matter on linkage and crossing-over, which was somewhat weak, needlessly involved, and poorly integrated in the first edition has been rewritten, new illustrations and explanatory examples added, and moved to a later part of the book. Applications of certain relatively newer principles of genetics, such as the Rh blood factors and the nature and physiology of viruses as related to genes,

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