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Secretary: R. C. Miller, California Academy of Sciences, Golden Gate Park, San Francisco, California

Officers of the Southwestern Division:

President: Frederic H. Douglas, Denver Art Museum, Boulder, Colorado

Secretary: Frank E. E. Germann, University of Colorado, Boulder, Colorado.

Book Reviews

Lehrbuch der inneren Sekretion. F. Verzár. Liestal, Switzerland: Ars Medici Ludin AG., 1948. Pp. xx + 608. (Illustrated.)

This textbook is an admirable introduction to the rapidly developing and expanding science of endocrinology. Dr. Verzár is a pioneer in this field and is particularly competent to undertake the difficult task of summarizing the methods and results of endocrinology in a relatively brief treatise. The American as well as the European literature is adequately and critically discussed.

It is not always possible to agree with Prof. Verzár as to the relative importance of the material included. For example, in a textbook of barely 600 pages, he devotes over 36 pages to the thymus gland, while secretin and renin get two pages each and enterogastron and cholecystokinin two paragraphs. There is no index.

The comparative physiologist as well as the clinician will profit greatly by this new textbook which could also be safely used as optional reading material in standard medical physiology courses. The book is recommended to all interested in the physiology of internal secretion and in the clinical possibilities of hormone therapy. The German style is lucid and can be easily followed by students acquainted with scientific German. An English translation would be highly desirable.

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Crop management and soil conservation. (2nd ed.) Joseph F. Cox and Lyman E. Jackson. New York: John Wiley; London: Chapman & Hall, 1948. Pp. xxii + 572. (Illustrated.) $3.80.

Farm soils: their management and fertilization. (4th ed.) Edmund L. Worthen. New York: John Wiley; London: Chapman & Hall, 1948. Pp. xiii + 510. (Illustrated.) $3.20.

These books cover a broad field thinly. By inference, at least, they aim to deal with all agricultural regions of the United States. Actually, the center of attention is the eastern part of the Middle West, with something about the South and the Great Plains, and a bit about the West. Since an appeal is made to both farmers and young students, scientific language and principles are held to the minimum. Partly for this reason, full use is not made of the enormous body of technical knowledge acquired in the past two decades. Thus large parts of the books could be appropriately back-dated some 20 years.

In the book by Cox and Jackson, the first part of the title is treated more nearly adequately than the last. This book could have been recommended for high-school agricultural students if the discussions of soils had been omitted. But not enough helpful material is included on soils to offset the inadequacies.

Even though prepared for vocational agricultural students in high-schools, there can be no excuse for completely omitting the use of modern soil classification and published soil maps in arriving at specific recommendations for individual fields and farms. Again and again the reader is admonished to use crops and practices "adapted" to his soil. This is very good advice. But he is not told what these are nor even how he can find out. In fact, the reader is not even given a working concept of the principal kinds of soil in the United States or how he might learn about those of his own community or farm. One even finds statements like this: "Clay soils are usually poorly drained and hence tilling is necessary for sure production of corn, beans, and beets." Many soil types rich in clay do not need tilling, and many poor in clay do.

Terraces are generally recommended for sloping land. The authors fail to differentiate between those soils on which terraces would be useful and those on which they would be ineffective or even ruinous.

Fertilizer recommendations are exceedingly general—not specific to defined conditions—and are out of date. Little is said about the advantage of high-analysis kinds. For example, in the chapter on growing clover, one finds this: "On run-down and light soils, fertilizers containing potash as well as phosphorus, or complete fertilizers, such as 0-12-6, or a 2-12-4, are recommended." For years, agronomists and soil scientists have condemned such low-analysis materials. The very significant fertilizer and agricultural programs of the Tennessee Valley Authority are not even mentioned.

The part on crops is better but hardly up to date. The new methods for corn growing, involving closer spacing

and supplemental nitrogen fertilization with adapted hybrids, are ignored. Modern methods for weed control with chemical sprays are mentioned but not explained.

Apparently the authors have tried to cover too much too fast. Thus, they avoid specificity, yet specificity is essential in farm management. The result is a mixture of old concepts and comparatively old practices, some good and some mediocre. It is far behind the modern successful farmer.

Farm soils is a more useful book. First of all, the author has confined his attention largely to soil management and thus not attempted to cover so much ground. Yet, relatively, it is less up to date than the earlier editions. Too much old material has been retained and not enough of the new results and new methods explained.

The author's concept of soil management is largely one of maintaining the soil. He writes that "farm soils tend to become acid." More often "farm soils" that need lime were acid at the start. Our problem with lime, organic matter, plant nutrients, and soil structure is, generally, as much or more one of improving the natural soils as it is of maintaining them.

The discussion of soil classification as a basis for predicting yields under alternative practices is outdated by 15 years or more. And even the system presented is not integrated with the recommendations in a way to permit these to be applied to specific conditions.

The moldboard plow is defended almost too much. Under dry-farming in regions of low rainfall he writes: "Therefore, plow to a depth of 7 or 8 inches promptly after crops are harvested." The greatly improved tillage methods now used by good farmers for the Chernozem, Chestnut, and Brown soils are inadequately explained.

This book is much better than *Crop management and soil conservation* on lime and fertilizer. Worthen stresses the savings to be made from home mixing of fertilizers and explains how it is done. He emphasizes the great savings resulting from the use of high-analysis materials rather than low-analysis ones. Yet, one wishes he had gone further and not written that "the 5-10-5, with a total of 20 percent of nitrogen, phosphoric acid, and potash, would class as a high-analysis or a high-grade fertilizer. . . ." But he shows the advantage of really high-analysis kinds. There are little errors such as "complete" for "mixed" fertilizer and "alkali" for "saline" soil. Generalizations are used where published data, if reviewed, would have permitted specificity.

Like the earlier editions, this book has a place for vocational agricultural courses in high schools and junior colleges, particularly in the humid-temperate part of the country. But it will need careful correction and supplementing by the teacher, using local soil surveys and recent bulletins of state agricultural colleges and the U. S. Department of Agriculture.

Two books are badly needed—one in agronomy and one in soil management—that can compare with *Farm management* by Black, *et al.* and *Feeds and feeding* by Morrison. Neither of these comes close to filling this need.

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Scientific Book Register

BOUMA, P. J. *Physical aspects of colour: an introduction to the scientific study of colour stimuli and colour sensations.* New York: Elsevier, 1948. Pp. 312. (Illustrated.) $5.00.

COHEN, MORRIS R. *Studies in philosophy and science.* New York: Henry Holt, 1949. Pp. 278. $4.50.

GOLD, HARRY. (Ed.) *Cornell conferences on therapy.* (Vol. 3.) New York: Macmillan, 1948. Pp. xx + 337. $3.50.

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