

hypotheses that fail to explain so many facts or to conform with so many basic principles are no more entitled to acceptance than folk tales.

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References

1. ARMSTRONG, H. E. *Nature*, **126**, 275 (1930).
2. VAN ANDA, C. V. *Science*, **74**, 187 (1931).
3. RUSSELL, H. N., DUGAN, R. S., and STEWART, J. Q. *Astronomy*. Boston: Ginn, 463 (1926).
4. TER HAAR, D. *Mat. Pys.-Med.*, **25**, (3), 16 (1948).
5. ———. Personal letter (Jan. 18, 1951).

6. WHIPPLE, F. L. Personal letter (Jan. 2, 1951).
7. UREY, H. C. *The Planets*. New Haven: Yale Univ. Press, 131 (1952).
8. KUIPER, G. *Proc. Natl. Acad. Sci. U. S.*, **37**, 1 (1951).
9. BROWN, H., and PATTERSON, C. *J. Geol.*, **55**, 405 (1947).

CORRECTION: In the short paper by Heston and Schneiderman that appeared on page 109, *SCIENCE*, January 30, there is an error at about the middle of column 2. The chemical name for the mustard oil should be "allyl iso-thiocyanate" and not "ethyl iso-thiocyanate," as printed. This is our error.

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Book Reviews

The Yeasts: A Taxonomic Study. J. Lodder and N. J. W. Kreger-Van Rij. Amsterdam: North-Holland Pub.; New York: Interscience, 1952. 713 pp. Illus. \$19.80.

This single volume of 713 pages is a condensed and revised translation of three earlier volumes: *Die sporogenen Hefen* (1931), *Die anaskosporogen Hefen*, I Hälfte (1934), and *Die anaskosporogen Hefen*, II Hälfte (1942). It also includes the family of Sporobolomycetaceae, which was not covered in the previous editions. Examinations are reported on 1317 strains of yeast.

There are seven chapters in the book and an author and culture name index. A short introductory chapter defines the term "yeasts" and outlines the scope and intent of the book. Chapter II describes 6 morphological and 12 physiological properties that are applied in the classification. Additional properties not previously considered are the formation and shape of the ballistospores and sugar assimilation. There is an interesting discussion of why additional physiological properties, like the assimilation of certain carbon, nitrogen, and sulfur compounds, as well as the vitamin requirements of yeasts, applied by various investigators, were not used.

Chapter III surveys the different types of variation that may occur in yeasts and discusses their significance in relation to taxonomy. Chapter IV has the main line of the classification under the ascospore-producing yeasts, family Endomycetaceae, the yeasts producing ballistospores, family Sporobolomycetaceae, and the asporogenous yeasts, family Cryptococcaceae. The last three chapters discuss the species, and each has a key to the various genera belonging to the three families.

This book on the taxonomy of yeasts is a very thorough study and a most significant accomplishment. It would appear, however, that more physiological properties need to be considered in order to clear up the confusion that now exists, especially at the species level. The names of many yeast species are listed as synonymous. The authors record 67 strains of yeast

belonging to the single *cerevisiae* species and 53 strains belonging to its *ellipsoideus* variety. The latter differentiation is based solely on a slightly greater ratio between the length and width of the cells. A single example will suffice to show that these yeasts are not all synonymous but can be differentiated further in some cases. The well-known *cerevisiae* strains Rasse M and Rasse II have similar growth factor requirements but are different in their assimilation of sulfur compounds, whereas the strain Rasse XII is different from both these strains in its growth factor pattern.

This book is highly recommended not only for those mainly concerned with the identification of yeasts but for anyone interested in the ever-expanding and important study of this single-celled organism.

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Livestock Health Encyclopedia. The control of diseases and parasites in cattle, sheep and goats, swine, horses and mules. Rudolph Seiden, Ed. and Compiler. New York: Springer Pub., 1951. 614 pp. \$7.50.

Into *Livestock Health Encyclopedia*, the author has packed an immense amount of information, which makes it useful to farmers and their advisers, and as a college text for students of medicine and pharmacology. By using a system of symbols and abbreviations, which are translated in two pages at the back of the book, this condensation of knowledge is achieved. The plan does not detract from the reading, in this reviewer's opinion. Whether it will confuse farmers or will be too technical for them remains to be seen.

Allied fields—i.e., wood preservation—for which drugs are used on the farm, are covered, as well as animal health. With so much information packed into 614 pages, there is but little space to tell readers "how to do it," but it is not a how-to-do-it book—