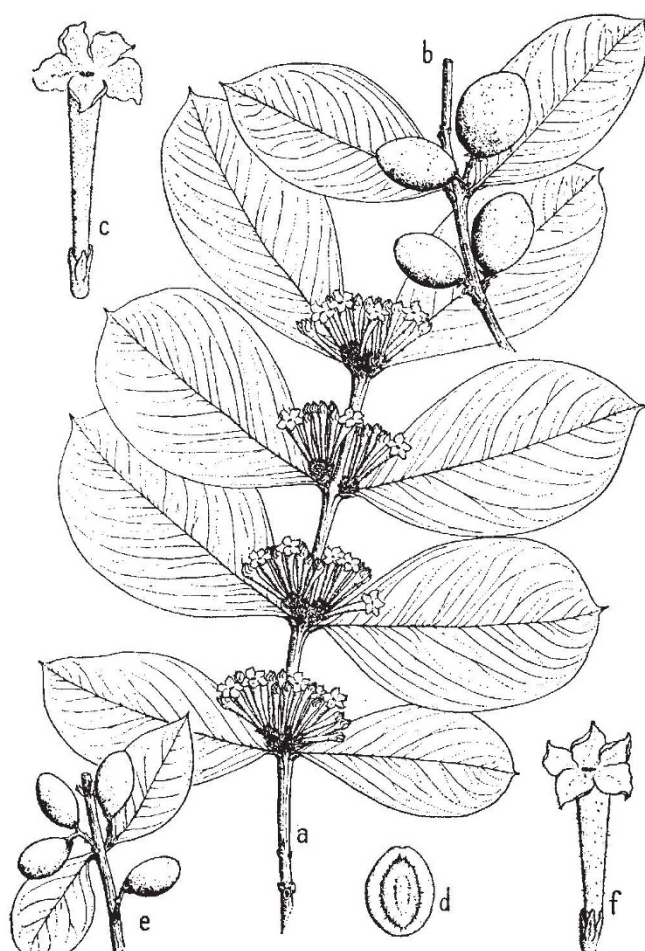


BEWARE PLANTS



The plant genus *Acokanthera* is notorious in Africa because it provides the principal ingredient of the arrow poisons used by many African tribes. All parts of the plant, except for the ripe fruits, are extremely toxic if introduced into the bloodstream of livestock and man. This illustration, showing the flowering branchlet (a), fruiting branchlet (b), flower (c), and seed (d) of *Acokanthera longiflora*, and fruiting branchlet (e) and flower (f) of *A. schimperi*, is taken from B. Verdcourt and E. C. Trump's *Common Poisonous Plants of East Africa* (Collins: London, November 1969. 36s). More than ninety dangerous species are discussed in systematic order with notes on their identification, distribution, periods of growth and flowering, toxic principles, antidotes and, fortunately, their antidotes and treatment.

POISONOUS FOOD

Toxic Constituents of Plant Foodstuffs

Edited by Irvin E. Liener. (Food Science and Technology, a Series of Monographs.) Pp. xiii+500. (Academic Press: London and New York, June 1969.) 187s; \$20.

THE book is the sixth to be published since the series began just over four years ago. This particular volume comprises a collection of twelve articles on some of the naturally occurring toxic substances known to occur in plant materials which are used as foods or feeding stuffs. The contributions are by specialists who have achieved recognition in their fields. In particular, the introductory review by I. E. Liener gives a concise account of the present state of knowledge on this topic.

Each chapter in the book deals with a particular series of toxic compounds such as the haemagglutinins, the goitrogens and the allergens, together with a number of

other toxic factors. The articles are themselves divided into a number of sections which include effects of the particular toxins, the distribution, toxicity studies, detection and detoxification. Each chapter is well supported by literature references and the book has author and subject indexes.

The book is very readable although a medical dictionary should be kept within easy reach by readers not versed in this particular aspect. This implied reservation is not a criticism of the book but rather an acceptance of the difficulties involved in covering a topic which includes such a range of disciplines.

In view of the present situation with regard to the world's protein supplies and the continued search for new and improved sources of protein, this monograph will serve as a useful reference book to the large number of scientists interested in food problems generally and, in particular, to nutritionists, biochemists, toxicologists and technologists.

B. D. JONES

RUSTS, SMUTS AND CANKERS

An Introduction to Plant Diseases

By B. E. J. Wheeler. Pp. ix+374. (Wiley: London and New York, September 1969.) 65s.

Most species of higher plant are susceptible to disease, whether it be during development or at maturity. Obviously, some host/parasite combinations are intrinsically more interesting than others, but, even so, the array of documented diseases is formidable. Consequently, the author of an introductory text on the subject of plant pathology must be ruthless in his selection of material, particularly when the narrative is presented in a style intended for reading as against mere "fact-gleaning". No doubt Dr Wheeler feels that he has pruned his stock of data to the very limit, but a beginner, faced for the first time with his account of leaf spot diseases, may well feel otherwise. For this book is at its best where the choice of material is self-limiting, and the author takes the opportunity to expand the dry facts into a fascinating story. Thus, the diseases symptomized by hypertrophy or hyperplasia are comparatively few in number, and the section devoted to witches' brooms, for example, may well catch the imagination of an aspiring pathologist.

Perhaps it is only to be expected that a book which attempts to cover so much ground will have patches where the presentation seems pedestrian, and certainly this book is ambitious in its scope. For not only are the usual range of disease agents considered, that is bacteria, fungi and viruses, but also some of the less common such as nematodes, insects and even flowering plants. In order to accommodate these varied parasites, the subject matter has been grouped by types of disease rather than on a crop or pathogen basis. Although some groups are virtually self-forming as with the "downy" or "powdery" mildews, the idea of arranging, for example, all the "gall-forming" agencies under one heading is an attractive one. Similarly, the various seedling blights are grouped into one chapter as are the "blight" diseases of mature crops, and in due course the student is introduced to rusts, smuts, cankers, scabs and all manner of maladies that a plant may suffer. Each chapter is a self-contained unit, and comprises sections describing the symptoms of a particular type of disease, the biology of the causal organisms in relation to infection, and how the pathogens may be controlled. The balance between these facets of any given disease syndrome is usually good, and a clear picture emerges of the effects of pathogen on host and vice versa.

The actual presentation of the material is very pleasing indeed. The author's style of writing is clear and uncomplicated, and, apart from the occasional absence of punctuation, the text is easy to read. The bibliography and suggestions for further reading, included in each chapter, should prove most useful to students wishing to