

## Book review

J. Bird and K. Maramorosch (Eds.), 1975. Tropical diseases of legumes. Acad. Press, New York, San Francisco and London. 171 pp., illustrations, tables and 5 pages of subject index; cloth bound. Price \$ 10.50.

Legumes are of great importance as food and fodder crops and as cover or green manure crops for maintaining or improving natural fertility, especially in the tropics. Often pathogens considerably limit legume productivity.

This book contains the texts of papers presented at a workshop held in 1974 at the Rio Piedras Agricultural Experiment Station, Puerto Rico. Hence, it is not a systematic coverage of the field. For obvious commercial reasons this information is withheld on the cover and title pages. Moreover, the title suggests more than the book actually provides. It deals mainly with virus diseases (13 contributions on 131 pp.) but covers only part of those reported in the tropics. Bacterial diseases, chemical control and ecology of pathogens are discussed in four papers (21 pp.) and there are two short papers on origin, improvement and prospects of the common bean (8 pp.). Emphasis is on Central and South American diseases.

Admittedly, viruses play a major role among disease incitants of legumes in the tropics. Several of these viruses are transmitted by whitefly or beetle. Some papers present new experimental data. Others deal with data from recent literature. Some are historical or speculative in nature.

So far little success has been achieved in mechanical transmission of whitefly-transmitted viruses. Hence, much confusion still exists on the identity of the viruses underlying the various diseases. In this respect the extensive reviews presented by Bird et al. on 'whitefly-transmitted viruses of Puerto Rico' and by Costa on 'the increase in population density of *Bemisia tabaci*, a threat of widespread virus infection of legume crops in Brazil', are worth a special mention. Another review presenting interesting information is that by Fulton et al. on beetle transmission of legume viruses.

The contributions on viruses have been grouped in two sections: 'rugaceous diseases' and 'mosaic diseases'. This grouping and naming are debatable. Some of the whitefly-transmitted diseases, here grouped under rugaceous diseases, are mainly characterized by color deviations of the variegation type, others by malformation and some of the beetle-transmitted ones, here grouped under mosaic diseases, are characterized by rugosity rather than mosaic, such as bean rugose mosaic. In this respect, the paper by Duffus on 'a new type of whitefly-transmitted disease -- a link to the aphid-transmitted viruses' is of special interest. The author finds the beet pseudo yellows virus in its symptoms to be much more like those induced by the aphid-transmitted yellowing viruses. This virus, however, is non-tropical and has only been isolated from beet in a greenhouse and from two weed species in the Salinas Valley in California.

The book has been well produced technically by Academic Press Rapid Manuscript Reproduction. Few of the contributions are illustrated. Addition of abstracts would have facilitated information retrieval.

Although of different standard and quality, several contributions contain valuable information for pathologists, researchers and breeders working on tropical diseases of legumes.

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