

REVIEWS

1. **Bacterial Plant Diseases in India** by G. Rangaswami. Asia Publishing House, Bombay, 1962, 163 pp. Price Rs. 8.75.

In the words of the author, "the purpose of this book is to compile all the available information on bacterial plant diseases in India and to present it in a form useful to the students, research workers and teachers, who specialize in Plant Pathology". The subject matter is presented in six Chapters which deal with bacterial diseases of plants under the headings: Bacteria in general, Plant pathogenic bacteria, Bacterial plant diseases in India, and A critical review. The text is followed by 31 illustrations which are photographs intended to show the general symptoms of some of the diseases. A useful appendix listing bacterial diseases of some less important plants and weeds in India and an index are also provided.

Chapters I and II are of a general nature. Bergey's (1957) *Manual* is followed in presenting the salient features of the Pseudomonadales, Eubacteriales and Actinomycetales (pp. 17-22). These chapters are informative and satisfactory as far as they go, but a chapter on methodology would have been useful. It is surprising that there is no chapter on the *modus operandi* of these pathogens—a subject of considerable interest to plant pathologists. Chapter III deals with bacterial plant diseases in India and so forms the backbone of the book. The significant fact that emerges from a reading of this chapter is what the author has repeatedly emphasized in Chapter IV, viz., that work on bacterial diseases of plants in India has progressed little compared to what has been achieved in the study of plant diseases caused by fungi. Amongst the forty diseases listed in this chapter, at least twenty-five are based on one or two records for the whole country and apparently the only information that is available on these relates to their symptomatology and to some extent on the identity of the pathogen. However, no information is given about the diagnostic features of the pathogens themselves and several new species are also recognized without information on their diagnostic features. Even a summary of the salient characteristics of the various species under different genera, somewhat on the lines of Dowson's *Manual* would have been useful to students and teachers alike. The lack of information on the distribution of the various pathogens and diseases is a major lacuna; however, the author would have done a very useful service by obtaining information of this kind from the various State plant pathologists of this country. Apart from these deficiencies, there are also a few misstatements in the text. Thus, the reference to symbiotic association of rhizobia to plants other than legumes (p. 20) was perhaps not intended by the author at all! The findings attributed to Winsted and Walker (1954) on p. 79 and p. 94 appear misplaced since they only reported on the PME and PG activity of *Pseudomonas solanacearum*, but did not study *Erwinia carotovora*. Again, not all may agree with the author that deficiency diseases of plants can be identified without difficulty (p. 28) or that (bacterial) plant diseases "are differentiated from the fungi, viruses, nematodes, etc. by means of the symptoms produced on host plants" (pp. 27-28). Other similar statements of doubtful validity can also be cited. The lists of synonymy (not synonymy, as misspelt throughout) for the pathogens could well have been deleted; for, they only add to the confusion when presented as on pages 81 and 93. It is not clear why the author has withheld years of publication of accepted binomials, but has generously provided them for the synonyms listed. The references to Bhide's and Ark's work on p. 91 refer to *Corynebacterium michiganense* and should obviously have been included under stem and fruit canker of tomato on pp. 84-85, and not under black rot of crucifers caused by *Xanthomonas campestris*.

Both the diction and general editing call for very considerable improvement. Literature citations in the text are frequently omitted from the references, and those cited under references are often omitted from the text. These and other errors, particularly of spelling and punctuation, unfortunately are quite numerous. Nevertheless, there is no doubt that plant pathologists in India will welcome and applaud the author's aim in bringing out a compilation of this kind and so the reviewer's criticisms are primarily suggestions for improvement without which this book is not likely to serve the purpose for which it is intended. (C. V. SUBRAMANIAN).

2. **Bulletin of the Regional Research Laboratory, Jammu, C.S.I.R., New Delhi.**
Biennial (January and July). Annual subscription, Rs. 3.00.

The publication of a bulletin aimed at disseminating the knowledge gained through scientific research in a form understandable to the layman is to be heartily welcomed. Especially is this so in the case of medicinal and spice plants. India had been, legendarily, the home of spices and perfumes and has also an ancient system of medicine based on herbs. But, even the limited scientific knowledge that is available in respect of these crops is not properly appreciated or practically applied.

The issue under review (Vol. 1, no. 1, July 1962) is a well-produced one carrying a large number of articles on the researches being done at the Regional Research Laboratory in the production, utilization and amelioration of Medicinal and Aromatic plants of India. Particular mention may be made of the series of papers on different aspects of raising *Mentha arvensis* in Jammu and Kashmir State. The Presidential Address delivered by Col. Sir R. N. Chopra, to the Symposium on Medicinal and Aromatic plants organized by the Laboratory in November 1961, is indeed highly thought provoking. This orientation, is, perhaps, but to be expected in view of the pioneer work this Institute has done and is doing in this field. It is to be hoped, however, that the pages of the future issues of the Bulletin would be thrown open to workers from other Institutions and in other, allied fields also. Such exchange of results and ideas cannot but be of the greatest advantage to Medicinal and Aromatic Plant Culture in India.

A welcome feature is the section giving abstracts of the research papers published from the Jammu laboratory, which is certain to be of considerable use to workers in this field. The reviewer wonders, however, whether it would not be possible to enlarge the scope of this section so that it can be a six-monthly or annual list of publications, from all over the world, in the field of Medicinal and Aromatic Plant Research. This would, the reviewer feels, enhance considerably the value of the bulletin and the Regional Research Laboratory, Jammu, has all the facilities for such a compilation.

(S. RAMANUJAM)