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BOOK REVIEWS

Biology and Molecular Biology of Plant–Pathogen Interactions: edited by J. A. BAILEY, Springer, Berlin, 1986, 415 pp. DM 178.

This is a collection of 40 papers presented by leading plant pathologists at a NATO Research Workshop held in the U.K. in September 1985. The emphasis is on plant–fungal interactions, though there are some seven papers on plant–bacterial relationships. The papers are very much a series of progress reports and cover familiar areas of research which have been well reviewed elsewhere. Molecular biological techniques are now beginning to be applied to the genes associated with pathogenesis and specificity and the most up to date sections of this volume describe the characterisation and manipulation of these DNA sequences. There are also several papers on the elicitation of the phytoalexin defence system, but the results from different laboratories still seem to be somewhat contradictory about the nature of the elicitors.

This volume is elegantly edited and produced, there are some excellent electron microscopical illustrations, e.g. of the cellular interactions between *Phaseolus vulgaris* and *Colletotrichum lindemuthianum*. Overall, this book can be recommended as a useful introduction into recent research efforts to comprehend some of the molecular complexities of plant diseases.

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Plant Molluscicides: edited by K. E. MOTT, John Wiley and Sons, Chichester, 1987, 326 pp. £37.50.

While many natural plant substances show pesticidal activity, very few ever reach the stage of being used commercially. There are many reasons for this, e.g. the superior activity and persistence of synthetic materials, but political and economic factors also play a key role. In the case of molluscicides, which are needed as part of the international control of *Bilharzia*, there is one synthetic agent available but it is expensive for those countries where foreign exchange is limiting. It makes much more sense to use a natural plant material, which would not only be less hazardous in terms of environmental pollution but it would also be beneficial in that its local production would engender new jobs in third world countries. This book, which has been published by Wiley for the World Health Organisation, records the work carried out in a variety of European and US laboratories to seek a marketable natural plant molluscicide.

There are 12 chapters dealing with every conceivable aspect of molluscicidal activity but most attention is given to the screening of plants for activity and a description of those natural products which have so far been found to have real potency. There is some overlap, since some five chapters variously list the plants that have screened so far. This is relatively unimportant since this is a continuing programme. K. Hostettmann and A. Marston come down in favour of saponin-containing plants and suggest that fruits of the legume *Swartzia madagascariensis* show the most promise as a natural control agent. The fruits are large, the yield per tree being 40 kg and it is a tree which is of widespread occurrence in those parts of Africa where schistosomiasis is endemic.

This book provides more of a working document than a rounded review of the subject of plant molluscicides, but it can be recommended as essential reading to all phytochemists interested in the biological activities of secondary metabolites.

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