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Book review

D. Spaar, H. Kleinhempel & R. Fritzsche, 1986. *Diagnose von Krankheiten und Beschädigungen an Kulturpflanzen – Gemüse*. VEB Deutscher Landwirtschaftsverlag, Berlin. For non-socialist countries: Springer-Verlag, Berlin/Heidelberg/New York/Tokyo. 406 pp. ISBN 3-540 13314-3/0-387 13314-3. Price DM 140.

The book is original in many aspects. The language is German, which limits its domain to a market of a little over 100 million people in Central Europe. The audience is defined as plant protection specialists in scientific, practical and teaching positions and students at different levels. The preface announces the book as one in a series on diseases and damage of different crops, but no indication is given of other crops to be covered. The appearance of a first volume in the series, on methods to be used for identification, is however mentioned.

The volume describes symptoms of diseases, pests and injuries of vegetables so as to allow identification of the cause. For illustrations the authors have preferred colour drawings over colour photographs. Black-and-white drawings sometimes add information on details of microscopic structures of fungi. Through the cooperation of many specialists, the book thoroughly covers all possible problems in many diverse vegetable crops.

All collaborators are staff members of research institutes and universities in the German Democratic Republic. H. Bochow is coordinator, and deals with fungi. R. Fritzsche is responsible for the animal pests except nematodes and for keys, and also for coordination. K. Naumann covers bacterial diseases, H.E. Schmidt viruses, H. Decker nematodes and W. Wrazidlo mineral deficiencies and toxicities. H. Hartleb and K. Skadow are collaborators whose special fields are not mentioned. H. Thiele made the 151 colour drawings and 67 black-and-white pictures.

The aim of the book is identification of causes of diseases, pests and injuries, which is considered as the first step in cure. Seventy-nine pages of keys, organized according to the crop, open the book. The keys deal with cabbage – radish – horse radish – peas – beans – tomato, pepper and eggplant – cucumber, melon and squash – spinach – red beet and Swiss chard – lettuce, endive and chicory – asparagus-black salsify – onion, garlic and leek – carrot – celery – parsley – rhubarb – mushroom. Within the keys, different headings for different stages (e.g. germination, adult plant) or plant organs (e.g. stems and leaves, seeds, roots) limit the number of descriptions one has to go through for identification. The key is not dichotomous.

For verification, the key refers to a page containing a colour drawing and a description of symptoms and the causal organisms. A drawing of microscopic fruiting structures of some fungi complements some pictures. For viruses, the English names and the test plants are described, to allow further steps in identification. At the end of the book, one finds a limited list of general books on diseases, pests and identification, an index of scientific names and one of German names.

The originality of this book is its strength and its weakness. The emphasis on reliable identification of a complete spectrum of diseases, pests and injuries has led to details that one rarely finds together elsewhere. The specialism of the collaborators guarantees that the data are up to standard. The drawings can stress a characteristic symptom or mark that a colour photograph could not. But sometimes the drawings have not been so successful in giving the right impression. It proves to be extremely difficult, for instance, to represent grey mould or corky root as it appears to the observer in reality. Painters always complain of the extreme difficulty of painting snow; the mediocre images of mildew prove this to be all too true.

More fundamental is the criticism that the treatise gives mere symptom description and identification of the cause of the trouble. Surely any effort to include treatments for prevention or cure would have dated the book, and would therefore be responsible for outdating after some ten years or so. But not giving any indication of the means of transfer of a virus, the life cycle of a fungus, and referring only marginally to the life cycle of insects seems to me regrettable. Such supplementary data would render the book much more meaningful to the user. In the present situation, one will always have to consult another handbook.

Nevertheless the authors and the editor are to be congratulated on a pleasant book on production constraints in vegetables. The choice of language and limitation of scope will set limits to its distribution. But its ease of use will make it popular.

M. Gerlagh