

Book reviews

Gassen, H.G.; Martin, A.; Bertram, S.: Gentechnik. Einführung in Prinzipien und Methoden. UTB-Nr. 1290. 2nd edn. Stuttgart: G. Fischer 1987. 386 pp., 181 figs., 34 tabs. Soft bound DM 29,80.

To be honest, scientists are not particularly eager to review books destined for students. In this case, however, I was pleasantly surprised how interesting it can be to learn about the overall expansion in the field of gene technology.

The booklet (written in German) is divided into 16 chapters, and the topics are as follows: the description of the morphology and function of cells with emphasis on DNA and proteins; the tools being used by molecular biologists, like restriction enzymes and various vectors; methods of identifying clones and constructing gene banks; the use of expression vectors; the description of sequencing and chemical DNA-synthesis strategies; how to localize genes producing only a small amount of protein; the presentation of different host systems; the application of gene technology today and in future, including gene therapy and safety regulations together with the description of biological and physical containments.

The individual chapters, mostly written by different authors, show a high scientific standard, and the booklet, therefore, can really be used by both students and scientists. Because of the writing style and the well-presented structure, even a non-scientist will be able to understand the basics and what has been achieved using them. The authors have shown themselves to be able to concentrate on their topic in a nicely compact form, and, therefore, to hook people's minds in getting more interested.

F. Dums, Bayreuth

Singh, D.P.: Breeding for Resistance to Diseases and Insect Pests. Crop Protection Monographs. Berlin: Springer 1986. 222 pp., 19 figs., 28 tabs. Hard bound DM 148,-.

The purpose of this book is to combine two scientific fields-phytopathology and plant breeding – a rather difficult task, as both subjects require separate approaches. Furthermore, the arrangement of topics, looked at from opposite directions, easily results in repetitions. The author tries to overcome these problems by using many subheadings, and sometimes by being extremely short. The main chapters of this book are: Concepts of disease resistance (dealt with under 54

(!) subsections in 26 pages), Concepts in insect-pest resistance (25 pages), Genetics of host-parasite interaction (24 pages), Sources of resistance and methods of testing for resistance (29 pages), Breeding for resistance to diseases and insects (actually the title of the book, 25 pages), Production of disease-resistant plants by unconventional breeding (8 pages), Stability and vulnerability of resistance (6 pages) and a list of more than 3,000 references (in 45 pages, the longest section of the book). These references reveal the general character of this book: only 10% cite papers appearing later than 1980 and less than 100 papers are written after 1983. For a book on a highly actual topic such a situation is not acceptable. The intention of the author "to provide insight into the principles of disease and insect-pest resistance . . . in university lectures to graduate students" (citation from the preface) is not successfully elaborated. The book mainly summarizes older descriptive findings, provides only rarely hard data, and stays cumulative rather than extracting perspectives and ideas for further strategies. There are, e.g., just four lines devoted to the concept of breeding for multi-line cultivars. On the other hand, old ideas on an immunological basis of pathogen defence by plants is discussed in two paragraphs. Apart from the small paragraph on cell culture approaches, modern strategies are hardly mentioned. Undeniably, the author gives a huge number of specific examples (very often specific for India) which are interesting but not interpreted systematically. This is also true for some rather voluminous tables, e.g., the four paged table entitled "some of the wild/related species of different crops used to transfer or possessing genes for disease resistance". Such a table cannot be complete and the reader needs good luck if and when he can find an answer to a specific question. The contents of the figures and the quality of the two photographs are not convincing. As all these shortcomings are coupled with several careless statements like the mentioning of bacteria and nematodes under insects, and potatoes under the headline tomato, this book can hardly stand a comparison with other existing literature on this topic like the well-written books by Russel, Vanderplank, and Deverall. Singh's book can, however, be recommended as an assiduous collection of plant pathology literature up to 1980, where even rarely cited papers are mentioned. In summary, although being relatively modest in price, there is no strong need to possess this book.

G. Wenzel, Grünbach

Announcement

Next EUCARPIA Meeting – 1989

The XIIth EUCARPIA Congress of the European Association for Research on Plant Breeding will be held from February 27 to March 4, 1989, at Göttingen, Federal Republic of Germany. The topics of the meeting will cover the whole field of plant breeding. Eight symposia will concentrate on breeding methods, genome structure, mutagenesis, breeding for disease resistance, plant legislation and breeders' rights, low-input varieties, genetic mechanisms for hybrid breeding, and application of biotechnology. In addition to poster ses-

sions, workshops, and group meetings on specific topics, excursions will be held to gene banks and several breeding institutions.

The president of EUCARPIA, Professor Dr. Gerhard Röbbelen, invites both members and other interested persons to attend. Further information can be obtained from the Secretariat XIIth EUCARPIA Congress, c/o Inst. für Pflanzenbau und Pflanzenzüchtung, Universität, Von-Siebold-Strasse 8, D-3400 Göttingen, Federal Republic of Germany.