

Book review

F. Rapilly & G. Doussinault (Eds), 1986. Les résistances génétiques dans les systèmes de protection des cultures céréalières contre les champignons, virus et nématodes. Les Colloques de l'INRA, No. 35. Service des Publications, Route de St. Cyr, F-7800 Versailles, France. 244 pages. ISBN 2-85 340-778-0. Price FF. 110.

This book contains the proceedings of a symposium organized by GNIS and ONIC at Versailles (France), January 23-24, 1986. The acronyms GNIS and ONIC are not explained. They stand for 'Groupement National Interprofessionnel de Production et d'Utilisation des Semences Graines et Plants' and 'Office National Interprofessionnel des Céréales', respectively.

The purpose of the symposium was to discuss the role of viruses, nematodes and fungi as agents of damage in modern, intensive cereal culture, and the potential for the use of resistant varieties to limit the impact of these factors. Since World War II, there have been several developments relevant to protection of cereal crops. The book mentions, for instance, increased use of fungicides, the more rapid replacement of cultivars, higher demands due to more intensive cultivation and the increased importance of virus diseases.

There are 19 contributions by various authors. One paper is in English, with a French summary, all others are in French, most of them with summaries in French and English. Several of the summaries are very brief and are merely indicative of the subject, rather than descriptive of the contents of the paper.

The papers are reflexions or reviews on aspects of crop protection rather than reports of original research. They are arranged in five sections:

- general introduction to the problems, including a chronological and geographic survey of fungal and virus diseases in France.
- scientific analysis of the problems, including a wide variety of topics, such as variability in host and pathogen populations, the multiline approach, sources of resistance and polygenic resistance.
- techniques and pathogenic risks in crop rotation, dealing with integrated forms of plant protection including crop rotation.
- agrochemistry and genetic improvement.
- conclusions.

The division into these sections is arbitrary and does not help the reader.

The area covered by the symposium was truly multidisciplinary and met the intentions of the organizers.

Many of the papers themselves approach crop protection in a multidisciplinary, balanced and original way. Examples of issues discussed are the danger of overemphasizing selection for resistance to pathogens at the cost of the agronomic value of the variety, the description of the level of resistance of a new variety to a pathogen consisting of several physiological races and integrated control of soil-borne diseases.

Its multidisciplinary character along with the practice-oriented approach make this book recommendable reading for cereal breeders and pathologists conversant with French.

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