
 Book Reviews

Dekker, J. and Georgopoulos, S.G.: Fungicide Resistance in Crop Protection. Wageningen: PUDOC 1982. 273 pp., index. Soft bound Dfl. 70,—.

In recent years competent and incompetent writers have been occupied with the relatively young topic: "Fungicide resistance in crop protection", whose importance has been growing. Sometimes single observations and results of preliminary tests have been reported too early, with the danger of speculative overinterpretation. In some respects, also, terminology has not been clear. Therefore it was deemed desirable to have an lesson as two on this topic from competent scientists.

In response, two international post-graduate courses were held in 1980 and 1981 in Wageningen, The Netherlands, organized by the Foundation of Post-Graduate Studies of the Agricultural University of Wageningen. It is the great merit of the editors to have answered with this book the request from many sides to make the information provided in the courses available to a broader public.

The prominent specialists treat with thoroughness in their contributions numerous aspects of this rather complex subject. In part, results of exact experimental research in special items are reported. In addition, common observations are given in an attempt at a more general view regarding the known facts up until now.

The compilation of these lectures essentially helps to bring together this special information and makes possible an objective view of this topic. It offers a broader and more substantial base for further discussions.

This book is recommended, for reading and consultation, to every phytopathologist who may be confronted in his work with fungicide resistance.

P. E. Frohberger, Leverkusen

Hiesey, W.M.; Nobs, M.A.: Experimental Studies on the Nature of Species, vol. VI. Interspecific Hybrid Derivatives Between Facultatively Apomictic Species of Bluegrasses and

Their Responses to Contrasting Environments. Carnegie Institution of Washington, Publication no. 636. Washington, DC: Carnegie Institution 1982. 119 pp., 29 figs., 23 tabs.

This volume of the series Experimental Studies on the Nature of Species summarizes very extensive records of interspecific crossing experiments involving polyploid, facultatively apomictic species of the bluegrass genus *Poa* and performed in 1943–1960. The genus *Poa* contains approximately 200 named taxa, widely distributed in regions of the world varying from cool-temperate to arctic, most of them extensively grazed by foraging animals. In the early forties, Dr. Jens Clausen of the experimental taxonomy group of the Carnegie Institution's Department of Plant Biology conceived the idea that by crossing facultatively apomictic grasses differing in desirable agronomic characteristics, "instant" new, self-reproducing "superstrains" with enhanced yield and tolerance to climatic extremes might be developed.

The authors conclude that the overall results have fallen short of initial expectations, none of the synthesized hybrid derivatives, mainly from crossings between the three species *Poa ampla*, *pratensis* and *scabrella*, having been clearly superior in growth performance to both parental lines when tested in all the different environments. Illuminating diagrams from extensive growth performance tests of parents and selected apomictic derivatives show, however, that a cross may be successful in synthesizing lines for particular agronomic uses in given climates. With the extremely wide possibilities for selection among F_1 , F_2 , F_3 , and later-generation derivatives exhibiting facultative apomixis combined with sexual recombination, a single cross may be used to derive a large number of new lines for selection by the plant breeder. The authors conclude that the fairly promising new derivatives obtained already from a small sample of the recombinants possible in the large agamic *Poa* complex are quite suggestive of greater success by using different parental materials.

There are good reasons to agree. This is indeed a highly stimulating and excellently written report.

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