

By J.M. Desmarchelier et al. the current status of mass spectra of organophosphorus esters and their alteration products is reviewed containing the mass spectra of OP compounds by classes: phosphinates, phosphonates, phosphates, phosphorothiolates, phosphorothionates and phosphorodithioates and OP-compounds with a single P-N bond, including 54 figures of MS of special OP compounds. W. Dedek, Leipzig

Gaul, H. (Ed.): Barley Genetics III.
 Proceedings of the Third International Barley Genetics Symposium 1975.
 München: K. Thiemig 1976. 849 pp., 270 figs.
 Paperback DM 130,--

The Barley Genetics Symposia are held every 6th year and provide, together with the yearly publication of the Barley Genetics Newsletter, the coordinating link between barley geneticists and barley breeders. This volume mirrors adequately the advantages of barley as an experimental organism in plant genetics and the areas in which major advances are necessary to provide for a better genetic basis to improve this crop.

Dr. Gustav Wiebe has been a central and leading personality in barley genetics and breeding for many decades. His last two papers are contained in this volume, which is dedicated to his memory.

Genetic engineering has become the melody of the day and high hopes are put to it for drastic crop improvements. Barley is one of the few plants in which haploids can be produced in unlimited quantities by species hybridization, chromosome elimination and embryo culture (Lange, Kasha, C.J. Jensen, E. Reinbergs, Fukuyama, Takahashi). The production of haploids and their use in barley breeding is excellently presented in the volume. Also since protoplast formation from haploid barley leaves is easily achieved, major advances in the selection procedures of rare disease resistant mutants or complex recombination products are to be expected.

This readiness by which single gene mutants can be induced and propagated make barley a suitable higher organism for biochemical genetics. The volume illustrates this for epicuticular wax synthesis (von Wettstein-Knowles), esterases (Edwards, Kahler, Allard), flavonoid synthesis (Jende-Strid), growth hormones (Favret), storage proteins (Kreft, Munck, Karlsson, Doll, Ingversen, Scholz, Walther and others). The latter mutants are increasingly

used to explore the chemical basis for feed and malt quality.

Barley is one of the organisms in which the mutagenic action of ionizing radiations has been first asserted. It still holds a leading position in mutation research as shown by the 23 papers devoted to this topic. In 1975, 36 commercial barley varieties could be counted which contained an induced mutation (Sigurbjörnsson). In sodium azide a most remarkable mutagen has been discovered in barley by Nilan and coworkers. It seems to induce exclusively point mutations at a very high frequency. Barley is also the only higher organism for which quantitative data are available to compare the effectiveness of ionizing radiations and chemical mutagens on forward mutations at individual genes (Lundqvist). Chromosomal aberrations continue to provide help in gene and chromosome mapping as evidenced by 18 papers presented.

The genetic analysis of disease resistance, especially towards powdery mildew and applications for breeding of disease resistant varieties, were a prominent theme at the symposium (19 contributions). Advances and problems in the development of hybrid barley are treated comprehensively (R.T. Ramage, P. Hagberg, G. Hagberg, L. Lehmann, B.A. Karlsson, C.A. Foster and others).

The symposium proceedings also provide room for experiments with negative results and entertaining speculation that would not be printed in a standard journal. D. von Wettstein, Copenhagen

Jalbert, J.; Sele, S.; Feingold, J.: Exercices Programmes de Génétique Médicale.
 Paris: Masson 1977. 108 pp., 33 figs. Soft bound (Snolin): 29 ffr

In 16 exercises and 166 answers 25 subjects in human genetics are treated. It is regrettable that the main body of information in the 166 answers is not accessible through a subject index. Deliberately and understandably the order of the answers, right or wrong, is mixed. For exercise no. 5 for instance the 10 sub-questions respectively belong to two subjects and 23 answers on as many different pages and that makes it rather tedious to study all aspects, pitfalls as well as good expositions, of a specific exercise. So this booklet (105 pages) is indeed for exercise by students who want to train for an examination. The teacher can learn most from the many wrong answers.

S.J. Geerts, Nijmegen

Announcements

Assinsel Award

The International Association of Plant Breeders for the Protection of Plant Breeders Rights (ASSINSEL) decided on May 27, 1977 in Monterey, Cal., U.S.A., to create an award for research work in plant breeding amounting to SFr. 5'000.--. The award is to be granted to scientists who made a considerable contribution to the improvement of plant breeding methods by basic research over the past 4 years, practical breeding work or breeding results are excluded from the award.

The ASSINSEL award will be granted for the first time at the occasion of the ASSINSEL General Assembly in Hamburg, F.R.G., in May 1978.

Relevant publications can be mentioned by authors, scientific research institutes or members of ASSINSEL until December 1st, 1977, and addressed to ASSINSEL, Poststrasse 10, CH - 4500 - Solothurn, Switzerland.

The decision on the publication that will receive the award will be taken with the assistance of an international jury of 3 scientists. Their decision is irrevocable.

The ASSINSEL AWARD Committee
 The Chairman,
 Ir. J.E. Veldhuizen van Zanten