
Book Reviews

Hoffmann, F.; Wenzel, G.: Abschlußbericht der Projektgruppen 'Haploide in der Pflanzenzüchtung' am Max-Planck-Institut für Pflanzengenetik.

Berichte und Mitteilung der Max-Planck-Gesellschaft 4 (1980) München: Generalverwaltung M-P-G 1980. 52 pp., 27 figs.

Over the past 10 years great efforts have been made to develop new approaches to plant breeding through the using of in vitro cell and tissue culture methods.

One of the most note-worthy research centers in this field is located in Ladenburg and was organized by the Max-Planck-Gesellschaft. In reading the final report on their 5 year project on 'Haploidy in Plant Breeding', I am convinced that their research program has made a basic contribution towards the improvement of in vitro methodology in economically important crop plants.

In the first chapter we are led through historical accounts and some aspects of the organization of the project. A description of the scientific work is initiated by a brief summary on the significance of haploids in genetics and plant breeding and on the main objectives in breeding rye and rape. Their very intensive studies on anther culture of rye and rape resulted in androgenetic lines. However, in the case of rye, only limited plant material is reported to analyse the usefulness of these genotypes in practical breeding. The mutant selection programs based on both haploid protoplasts and stem embryos of rape outline the possibilities in increasing the efficiency of mutation breeding. The booklet provides some information on the limitations in culturing cereal leaf protoplasts isolated from 50 different species and varieties. Despite the fact that protoplast fusion had no central significance in the planned program, the production of a somatic hybrid between *Brassica campestris* and *Arabidopsis thaliana* provided an excellent example of paraxial integration of plant genomes having different phylogenetic origin.

Overall, this booklet gives a good summary of the research results with in vitro plant cell and tissue cultures. It is completed with photos and a list of publications. L. Alföldi, Szeged

Roy, A.K.; Clark, J.H. (eds.): Gene Regulation by Steroid Hormones.

Berlin, Heidelberg, New York: Springer 1980. 316 pp., 145 figs., 29 tabs. Hard bound DM 84,-.

Research on the molecular aspects of gene regulation by hormones has concentrated on two aspects of the problem: the properties of the cellular receptor for the hormone and the metabolism of the mRNA's which code for hormone induced proteins. The papers collected in this volume also deal mainly with these two topics. Since the 'Conference on molecular mechanisms of steroid hormone action' was held two years ago, where these papers were presented, it is not surprising that the papers dealing with the structure and metabolism of hormone induced RNA are somewhat out of date: progress in this field has been remarkably rapid after the introduction of recombinant DNA techniques. Progress in the field of hormone receptors has been much less rapid and the material dealing with this topic is still representative of the present day state of the art in the field.

It is good to see that the biochemical work on the insect ecdysteroids has finally come of age, and a section dealing with these hormones has been included along with sections dealing with three vertebrate hormones. Each of the four sections is preceded by a short introduction to the mechanism of action of the particular hormone that the section is devoted to, followed by a number of research papers dealing with more specialized topics. Unfortunately, most papers only report the authors' own work, little attempt has been made to survey the field. This makes the book unsuitable as introductory reading. It will be helpful, however, to research workers or advanced students, who are at least partially familiar with the field. For those people it offers a good review of the experimental approach to the study of the molecular mechanism of action of steroid hormones. N.H. Lubsen, Nijmegen

Announcements

Tissue Culture in Plant Breeding and Propagation

The British Council has organized a special course on the application of plant tissue culture techniques for the production of improved forms of many crop plants. This course (No. 125) will take place from July 6-17, 1981 and has been specifically designed for those researchers wishing to familiarize themselves with the use of these techniques in plant breeding and in the propagation of improved or disease-free plants.

The director of the course will be Dr. D.R. Davis, Professor of Applied Genetics at the University of East Anglia, and Head of

the Department of Applied Genetics at the John Innes Institute, Norwich, where the course will be based.

Fee: £ 575: This includes the cost of board and lodging, lecture fees and travel expenses incurred during course.

Application forms can be obtained from the local representative of the British Council, or applicants can apply directly to the Director, Courses Department, The British Council, 65 Davies Street, London W1Y 2AA (tel. 01-499 8011). Closing date for applications is February 15, 1981.