
Book Reviews

Soderholm, P.K.: Catalog of Plant Germplasm Available from the Subtropical Horticulture Research Unit, Miami, Florida. New Orleans: USDA Agricultural Res. Serv. 1981. 90 pp.

This catalog lists alphabetically by genus and species 5,400 accessions of tropical and subtropical plants, representing 149 families, always taking into consideration the requirements of automatic data processing. Involved in the listing are species such as mango, avocado, Ficus, palms, coffee, cocoa, Dioscorea, Cassia, rubber, Sansevieria, and many other species of ornamental and fruitplants.

Seeds, fruits and other plant parts are available to investigators, nurserymen, farmers and other commercial interests for "starts" if no commercial sources of supply exist – preferentially in exchange for material the collectors have not yet acquired. The germplasm is not available to individuals for gardening and landscaping. H. F. Linskens, Nijmegen

Loewus, F.A.; Ryan, C.A. (eds.): The phytochemistry of Cell Recognition and Cell Surface Interactions. New York, London: Plenum Press 1981. 277 pp., 55 figs., 42 tabs. Hard bound \$ 45.00.

During recent years cell interactions have received special attention with regard to cell recognition. The role of glycosyl-conjugates and carbohydrate-binding proteins has given the various syndromes a molecular base. A joint symposium of the

Phytochemical Society of North America and the American Society of Plant Physiologists in August 1980 at the Washington State University, Pullman, Washington concentrated on this topic. The organizers of the meeting carefully prepared the publication of a volume which satisfies the need for an overview of cell recognition and cell surface interactions as related to plants. Contributions of this volume may be sorted into three categories: overviews on the chemical structure of glyco-conjugates; secondly, a closer look at the specific systems in term of biological relevance; thirdly, selected examples of mentioned biopolymers in such studies as protoplast agglutination, bacterial attachment, plant-herbivore interactions, and pattern formation in slime molds.

From the genetic point of view the molecular aspects of recognition and response in the pollen-stigma interaction are the most interesting (Adrienne E. Clarke and P. A. Gleeson from the school of Botany at Melbourne). They describe the biology of fertilization in higher plants as a process in which cell surfaces are involved. The authors themselves defined the components involved in pollination in the case of stigma-surface secretion in *Gladiolus*, where arabinogalactans are the major components. They also analyzed an antigenetic component in the stylar mucilage of *Prunus avium* which correlates with S-genotypes. Interesting enough there is no information available regarding the purative receptors of the pollen-tube surface. The role of the arabibo-galactans is still unknown. H. F. Linskens Nijmegen