

ed in the provinces where citrus is an important crop. The selection of bud mutations has been conducted in all citrus-producing provinces. Hybridization work began in the 1950's. Since the 1960's, in addition to hybridization, induction of mutation by physical and chemical methods has been carried out. In recent years, triploid and monoploid plantlets have been obtained by tissue culture from the endosperm and anthers, respectively. In addition to the above-mentioned selection and breeding work, studies of citrus isoenzymes by electrophoresis, the physiological and biochemical indices of cold tolerance and the pollen morphology of different citrus species and cultivars by SEM are conducted in some laboratories.

Research on cultural practices. Studies are carried out on overcoming alternate bearing, soil improvement of citrus orchards, the effect of green manure and chemical fertilizers in citrus groves, tree spacing, and the prevention of fruit drop by using plant growth regulators. Pruning techniques to increase fruit production have also been studied.

Research on citrus diseases and pests. Research emphasis is on the pathogenicity, the vector and the control of Huanglongbing. Studies on the epidemiology and control of citrus canker, scab, black spot, etc., and on the cause and control of satsuma sudden wilt have been conducted. The exclusion of virus and virus-like pathogens from citrus by shoot-tip grafting has been started in recent years. In pest research, the biology, the population dynamics, and chemical and biological control procedure of red mite, rust mite, arrowhead scale, red wax scale, leaf roller, leaf minor, etc. are studied.

Research in fruit storage. Since most citrus fruit are picked in November through December, storage of this fruit is practiced to extend the period of market supplies. Studies on the storage techniques, including the seal-package of the fruit with polyethylene film and the selection of chemicals used for the control of fruit rot, are carried out.

Some achievements in the above-mentioned research work will be described in this symposium.

Wilder Certificates Awarded

Roy C. Rom

At the annual meeting of the American Pomological Society held August 6, 1984 a seldom awarded Wilder Certificate of Recognition was presented to Drs. Jules Janick and James Moore. The awards were made in recognition of their significant contribution to Horticulture in publishing the two comprehensive volumes on the breeding of temperate and tropical fruits. *Advances in Fruit Breeding* is a 640 page text consisting of 20 chapters authored by 27 specialists in fruit breeding. *Methods in Fruit Breeding*

is a new look at fruit breeding and it considers the subject from a procedural and theoretical point of view. This volume has 24 chapters compiled by 32 specialists.

The American Pomological Society was delighted to honor Dr. Janick and Moore for their foresight and perseverance in editing these most important volumes. Dr. Jules Janick is Professor of Horticulture at Purdue University and Dr. Moore is Professor of Horticulture and Forestry at the University of Arkansas.