

investigation for the future?

W C. LIN: We considered that, yes. We thought about that but due to our limitations we have only gone to the propagation stage and the stage of early growth of the container plants.

VOICE: Why do you use CO₂ in this case? What are you trying to achieve? Are you targeting for the carbohydrate content or are you targeting for the acidity of the water?

W.C. LIN: Our primary purpose is to increase the carbohydrate level. Because, many, many studies have shown there is a proper balance between auxins and carbohydrates which is essential for rooting. We feel after many months in the propagation stage under low light, the carbohydrates are obviously going to be depleted rather than increases. That is why we are using the CO₂. Hopefully we can maintain the carbohydrates in this way.

WESTERN REGION 1980 AWARD OF MERIT

Presented by Steve Fazio

The recipient of the Western Region's 1980 Award of Merit received his B.S. degree from the University of California in 1940 and a Ph.D. in Genetics from the same institution in 1952.

His professional career started as a plant breeder for the Grant Merrill Orchards, Red Bluff, California, shortly after he attained the Ph.D. degree. He was involved with this organization in the breeding of new peach and nectarine cultivars.

After 3 years of this work he returned to the University of California in 1953 where he became a staff member in the Department of Viticulture and Enology. In his early studies he was involved in virus problems with grapes, working with plant pathologists at the University of California. He soon became interested in the propagation of grapes and conducted many studies dealing with propagation by cuttings, budding, and grafting and in studying grape rootstocks. He also worked with his colleagues in the Department of Viticulture and Enology on the evaluation of wine grape cultivars in California.

In 1974, he was invited to visit the grape growing regions of Germany and France to study grape propagation as practiced in those countries.

Upon the organization of the Foundation Plant Materials Service on the University of California Davis campus he was appointed its manager on a part-time basis, handling this responsibility until about 1972 along with his research with grapes. He

participated from time to time in teaching activities, both in plant propagation laboratory sections and in the general viticulture courses. His basic activity, however, has been in propagation methods for the grapevine. This work has become very important in the last few years with the great interest in top-working vines of red grape cultivars over to white grape cultivars due to the great demand for the latter.

Our candidate has been a strong and active supporter of the IPPS Western Region from its inception, serving as the Secretary-Treasurer almost from its inception. Dr. Curtis Alley has served the Society faithfully and well for many years and richly deserves the 1980 Western Region Award of Merit

SALT TOLERANCE OF ORNAMENTALS

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Abstract. Three series of tests were conducted from 1977 through 1979 on a number of container ornamentals to determine their tolerance to salt fortified irrigation water at four different levels of salinity, 140, 300, 600 and 1200 mhos $\times 10^{-5}$ electrical conductivity (E C.) Plants were evaluated after at least five months of irrigation for their salt tolerance determined by $<50\%$ retardation, no mortality and no visual foliar burn. Of the 118 cultivars tested, 29 were very tolerant, 38 were moderately tolerant, 43 were sensitive, and 8 were very sensitive

Data on the salinity tolerance of plants is becoming increasingly more important with the increased use or re-use of water and with the increased pumping of underground water causing intrusion of sea water into some aquifers (1,4,5).

Studies have been conducted by some with chlorides and sulfates only, others alternated with fertilizer salts, and some used a base nutrient + other salts. This study used either all fertilizer salt or $\frac{1}{2}$ fertilizer + $\frac{1}{2}$ sodium chloride (2,3,4).

The following reasons prompted us to conduct several series of experiments to screen the salt tolerance of ornamentals: 1) increasing inquiries by our customers for salt tolerant plants or information, 2) our embarking on a total water recycling system, and 3) the need for more information on salt stress of plants for trouble-shooting

MATERIALS AND METHODS

A series of tests were begun in 1977 and continued through 1979 to establish the salt tolerance of many container ornamen-