

# Florida Nurserymen's Annual

The 1400-member Florida Nurserymen and Growers Association has just completed its largest show and short course. This annual event this year registered \$300,000 in sales at the show itself, held at Hollywood-By-The-Sea.

Important in addition to the show is the short course. Newly featured this year was a presentation by Dr. P. L. Neel. He discussed the pros and cons of staking young trees.

Dr. Neel is a newcomer to the Agricultural Research Center at Fort Lauderdale. A Pennsylvanian, he recently arrived in Florida from California, where he completed the requirements for his Ph.D. For the past four years, Dr. Neel has been the Graduate Research Fellow of the International Shade Tree Conference.

His findings indicate that trees grown with little or no staking have larger trunk diameters close to the ground, but are not as tall as trees rigidly staked.

Dr. Neel doesn't recommend staking when trees are properly grown in a nursery; they may actually become dependent upon the stakes for support, even when later planted in the landscape. Yet, minimal staking at an early age "often prevents vandalism."

A treelet, he said, which is rigid enough to stand upright by itself, and has the ability to give with the wind and later returns to an upright position, can justifiably be called a strong tree. He stressed, however, that the production of such a tree requires disease and pest control, proper fertilization, watering and adequate space for lighting the lower branches. He discouraged pruning; trim only enough to maintain "apical dominance" and tree form.

Dr. Neel described "improperly grown" as can to can, causing serious crowding and shading. Result is, treelets grow tall and spindly and lower branches are shaded out.

He has found, he said, that un-staked, unpruned trees grow less in height but the most in diameter, and with greater taper, vs. trees staked and the lower branches pruned, which tends to make trees grow taller, with less taper and trunk caliper.

In one of his stake-experiments, it was noted that trees supported by 1" x 1" redwood stakes bent away



Honored for his many years of services to Florida's horticultural industry, Jim Griffin, executive vice-president, FNGA, receives award of eminence from Hal Jones, director, Div. of Plant Industry, Gainesville. Griffin's name will be inscribed on the Award of Eminence honor roll in the Doyle Conner Building at Gainesville, Florida.



Spearheading program were, left to right, Joseph Welker, president of FNGA, Duval Landscaping, Jacksonville; Dr. James Strobel, Ornamental Horticulture, University of Florida; and Dr. P. L. Neel, Agricultural Research Center, Fort Lauderdale.

from the trunks when untied. A subsequent experiment was run to determine whether it was the shading of the trunk by the stake or the pressure against the stake which caused the bending. Results indicated that the unilateral shading was the apparent cause of the bending. On the other hand, treelets supported with plexiglass stakes, with sunlight reaching the trunk, stood upright when untied.

Another featured speaker, Julius Richmond, Electronic Data, Inc., of Houston, speaking on inventory control, warned of the cost of stagnant inventory. Every dollar of inventory

must earn at least 5% to 7% each week to pay for its share of fixed expenses, which include overhead, maintenance, lighting, etc., but not the cost of labor and capital investment.

If inventory is stagnant, and fixed expenses are going on, it will cost money to keep an item, plus what you already lost by not allocating its space to another faster moving plant.

Inventory control tells you during periods of demand, the quantity of plants by size, type and quality that can be produced and sold at a profit. Also important, he stressed is to

know the total useable nursery space, as well as the allocated space available for each block of plants. This information permits better and quicker decisions.

Also, by maintaining intelligent inventory levels, a severe problem is bypassed, namely, "Out of Stock." Nothing sours a customer quicker than being told "we're out of hibiscus." Not only is a sale lost, but in many cases competition gains another customer.

Speaking on weed control in nursery cans, Prof. Carl Whitcomb, Dept. of Ornamental Horticulture, University of Florida, stressed that sanitation is the crux of keeping down weeds. "And," he said, "Don't be lulled by size, even the wee ones can go to seed; don't allow it."

Sanitation can be expensive, he pointed out, but not as much as overgrown weeds which compete for food and water. Herbicides are only a tool, and not the ultimate answer in weed control, but when used properly will give good service. One of its values is that it doesn't leach. Container stock needs more water because of the concentrated root system (plants can be stunted), compared with plants in the field.

He warned against uneven distribution of herbicides; spraying is temporarily okay, drenching is best, and granules are poorest. The latter will decompose from light and volatilise, while an irrigation system can carry the chemical too deep, too quickly, and is not the answer because of uneven application and subsequent waste.

The rate of application is important, and a shaded soil surface will protect the chemical from deteriorating and evaporating.

Jim Griffin, Jr., vice president of FNGA, was honored with an Award of Eminence by Hal Jones, director of Florida's Division of Plant Industry. Mr. Griffin's name will be inscribed on the Award of Eminence Honor Roll in the Doyle Conner Building in Gainesville.

More than 2100 persons attended the show and short course, which broke all previous records.

More than \$2,000 in prizes, including cash, weekends at plush resorts, etc., went to lucky exhibitors and attendants. An armed guard presented a \$1,000 bill to Nick Locante, Nick's Garden Center, Boca Raton; and \$500 to George Russell, Russell, Inc. Miami. Also, Bob Plyler, Arvida Nurseries, Miami took home a \$50 bill, and a color TV set went to Ralph Jones of Kerr-McGee Co., (formerly Wilson-Toomer Fertilizer Co.) of Jacksonville.

## Threat to Florida's Palms

# LETHAL YELLOWING

A new palm tree disease, called lethal yellowing, is slowly killing coconut palms in southern Florida. To date, no cure has been found.

The disease currently is damaging trees in West Africa, has been known in the West Indies for a century, and has been sporadic in attacks in Key West, Fla., for some 35 years. Recently it has been found for the first time at Key Largo and Little Tork Key, Fla. But the first occurrence on the U.S. mainland was some two months ago at both Coral Gables and Miami. First danger sign is dropping of small, premature coconuts.

When attacked, the foliage of trees begins to turn yellow, starting with the lower fronds. No fruit will set. Male flowers will be dead and black. The vegetative bud dies, as do all leaves. Finally, the dead top falls away in the wind, and only the tall, naked tree trunk remains. This is a fatal series of events, and occurs within a three to six-month period after affliction.

Lethal yellowing destroys all coconut palms in its path but moves slowly. It is an infectious disease, presumably restricted to coconut palms in Africa and America. According to Dr. Daniel A. Roberts, Professor of Plant Pathology, Institute of Food and Agricultural Sciences (IFAS), most scientists believe a virus is the agent, though viral particles have not been discovered yet in diseased trees. "We have strong evidence that other known plant pathogenic agents—bacteria, fungi, nematodes—are not associated with lethal yellowing," says Dr. Roberts. "The agent is most likely carried from diseased to healthy palms by insects with piercing-sucking mouthparts."

Scientists working with the Food and Agricultural Organization of the United Nations and with the Coconut Industry Board and Ministry of Agriculture in Jamaica obtained evidence that a species of whitefly may transport the pathogen. Research on transmissibility has been conducted at the U.S. Naval Station in Key West by scientists from the Division of Plant Industry, Florida Department of Agriculture and Consumer Services, and from the Plant

Pathology Department, Institute of Food and Agricultural Sciences, University of Florida.

Many questions concerning the disease are still unanswered. Thorough and immediate research is needed. The best corrective now, according to Dr. Roberts, is to destroy all coconut palms the moment they show symptoms and replace them if possible with resistant lines of Malayan palms. Ordinary coconut palms can be planted in their place on the chance they'll escape infection until after the disease has run its course in the region.

An alert citizenry may be able to check the spread of destruction by learning to recognize lethal yellowing and by making the sometimes hard decision to sacrifice swiftly the already diseased palms in the interest of those that have thus far escaped. Both IFAS and the Division of Plant Industry are prepared to assist in every possible way to get rid of the lethal yellowing already in Florida palms and to check its dreaded distribution to the plants that still enjoy good health.

## New Book Features Diseases of Trees

A new and comprehensive book which was 10 years in the making, "Diseases of Forest and Shade Trees," is now available.

Published by the Forest Service of the USDA, the new publication is authored by Dr. George H. Hepting, noted forest pathologist. Until his recent retirement, Dr. Hepting was Chief Plant Pathologist at the S.E. Forest Experiment Station, Asheville, N. C.

The book includes pathology of more than 200 trees, important in the nation. Most are native, but many introduced species used for shade or ornamental use are included, as were some orchard trees. The Forest Service expects the new book to find ready use as a standard text and reference work.

Cost is \$4 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20412.