

Gulf Coast Fruit Study Newsletter

Volume 18, Issue 2

Edited By: Ethan Natelson

June 22, 2004 Meeting

Planning Committee:

Yvonne Gibbs
George McAfee
Doug McLeod
Rick Matt
Michael Morrison
Ethan Natelson
David Parish
Bob Randall

Current Meeting:

Our program will begin at **7:00 p.m. on June 22, 2004** at the Extension offices at the Bear Creek Facility. Our guest speaker is Tom Leroy, Extension Agent for the Conroe area, who will discuss plant propagation and selection for the Gulf Coast area. We will also have a report on the Southern Fruit Fellowship meeting, to be held in Clarksville, Arkansas, June 17-19.

Contact Us!

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Avocados in Houston

Recently George McAfee, Carol Cammack and many others became interested in a "save the avocados" project to study the feasibility of moving two mature and productive avocado trees (see photo) from their sheltered location here in Houston, to another site, because of inevitable new construction. This led to many questions about this plant including its ability to be propagated by cuttings, air layering or by seed, its ability to survive major pruning, and whether these particular trees were, perhaps, uniquely cold hardy to have survived

in our climate for more than 30 years. The May-June issue of Fruit Gardener contains a comprehensive article on the avocado (*Persea americana*) with many beautiful color photographs of the cultivars grown in California, as an industry, since 1910, and that answers most of these questions.

Avocados are indigenous to South and Central America and are generally classified into three types. The West Indian, Guatemalan, and Mexican cultivars

differ in terms of skin texture, cold hardiness, firmness and shape, which may vary from round to extremely long-necked. The Mexican types are the most cold hardy and often used as rootstocks. The fruit is actually classified as a berry and is not fully ripe until it drops from the tree. The tree, itself, is evergreen and may reach 65 feet in height. Pollination characteristics are quite variable and depend, in part, upon when the flowers open, which is quite variable, from tree to tree. (continued)



Avocados in Houston (continued)

From the pictures of the Houston fruit, these are clearly the **Hass** variety, which is considered to be a cross of the Guatemalan and Mexican types found as a seedling in California in 1926, and which now comprises 92% of the crop in California's 58,000 acres of production. Actually, there are more than 150 named cultivars grown, with some of the favored varieties being **Reed**, **Fuerte**, **Julia** and **Pinkerton**, the latter one of the long-necked varieties.

Fruit quality can vary considerably with location and time of ripening, which can be accelerated by prolonged heat, causing the fruit to be less desirable. **Hass** is widely grown because of its long shelf life and the spreading nature of the tree.

Avocados do not come true from seed and selected varieties are usually propagated by grafting techniques. They are alleged to be extremely difficult to establish from cuttings or by air-layering techniques.

Mature trees can be cut back to about 3-4 feet tall or even virtually to the ground and will rapidly recover. This would appear to be the best solution for the Houston trees, should anyone be interested in pursuing this project.

Propagating Patented Plant Material

Frequently, fruit and berry plants as well as ornamentals purchased from various sources are patented varieties and, therefore, protected by intellectual property laws. Plant patents are far cheaper to obtain than, for example, chemical drug patents, and often the patent submission data is not required to be nearly as detailed in its descriptive claims. Such plant varieties are usually sold to the public with part of the sales price returned to the owner of the patent or to the nursery that has obtained the rights to propagate the cultivar. On occasion, there are also charges per unit of fruit produced and sold in the marketplace. Such patents have been difficult to enforce, particularly in foreign countries which may obtain plants developed and protected in the United States and then propagate them in their own location. On occasion, the fruit and berries produced are then exported for sale in the United States, further frustrating the owners of the intellectual property rights.

According to the magazine, "Good Fruit Grower" there seems to be a new growth industry springing up in the Northwest, with a group of attorneys suing orchard owners claiming that they have benefited by illegally propagating now-producing trees. On occasion, those being sued had purchased the orchards long after the actual tree planting took place, and detailed rootstock and plant purchasing records may no longer be available. While most of these lawsuits have not yet been decided or settled, I think we can all guess which group will be the only ones profiting by these actions.

I doubt these rumblings will materially affect the homeowner who quietly pirates a few buds of a protected variety for his or her own personal enjoyment, but they should be a caution to one who propagates protected material for sale to the public, or for establishing a commercial orchard operation. Certainly for those who do contemplate establishing a business involving plant or fruit sales, record keeping of how your plants were obtained just might become very important.

Houston's Pied Piper of Fruit Cultivation

Many Houstonians interested in fruiting plants and trees as well as members of regional and national pomological organizations including NAFEX (North American Fruit Explorers), CRFG (California Rare Fruit Growers) and SFF (Southern Fruit Fellowship) have benefited by their contact with Dr. Leon Atlas over the past 30 years. Leon was, perhaps, the single individual most responsible for stimulating the popularity of backyard tree fruit cultivation in the Houston area, and he unselfishly imparted his wisdom and enthusiasm to generations of local amateur pomologists and nurserymen. He was one of the founding members of our Gulf Coast Fruit Study Group and helped plan, and then obtain the plant selections for a demonstration orchard at the Harris County Extension Service Facility at Bear Creek. Dr. Atlas was a native Houstonian and longtime local physician. Early in his career, he served as Director of Virology at the National Institutes of Health, and he was one of the early members of the Department of Internal Medicine at Baylor Medical School. I don't know when Leon first developed his interest in horticulture, but it may have been stimulated by his father-in-law, who was Secretary of the United States Department of Agriculture.

For more than 20 years, he held classes in January and February, at the Houston Arboretum, teaching grafting techniques, as well as the basics of fruit tree cultivation including rootstock and cultivar selection for the Gulf Coast area. He established a number of relationships with notable fruit tree enthusiasts around the country, and by these friendships, he was able to secure unusual and locally unavailable tree selections for trial in our area which he would then distribute to his students from his backyard. He asked only for feedback on performance characteristics of the cultivar and rootstock in our Zone 9. His recall for names and characteristics of selected cultivars of many species was unmatched. He carefully prepared lists of each plant type, noting the required chill hours, fruit size, disease resistance, and many other features. Dr. Bob Randall, the director of Houston's *Urban Harvest* organization, recalls that Leon was a founder of The Street Farmers' Co-op, in the 1970's, and was an early member of both North American Fruit Explorers (NAFEX) and Southern Fruit Fellowship (SFF). Leon was a keen observer and able to spot bud mutations of plants in his yard and then graft and propagate them. Some of these local selections included his **Pong Koa** and **Honey** mandarins, as well as his **SuperOrient** pear.

Friends of Dr. Atlas have arranged a beautiful memorial for him which consists of a brass plaque mounted on a one-ton granite stone which has been placed in the demonstration orchard in Tom Bass Park. For any who wish to make a small (only less than \$20 accepted) donation to reimburse costs for this endeavor, send your contributions made payable to the Harris County Master Gardener Association, 3033 Bear Creek Drive, Houston, Texas 77084-4233, with a notation on the check that it is in Dr. Atlas' memory.

HARRIS COUNTY
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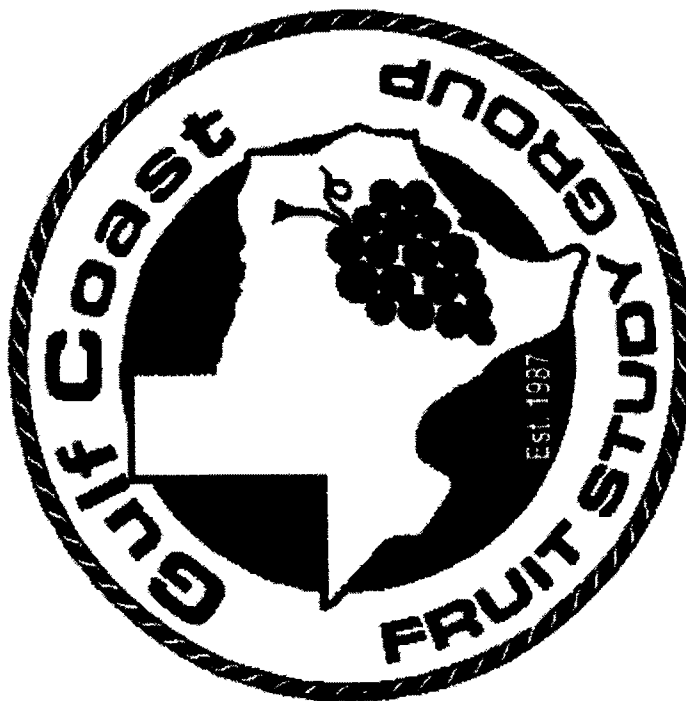
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