TEXAS A&M UNIVERSITY-KINGSVILLE

CITRUS CENTER

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NEWSLETTER

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BETO GARZA SR. IN MEMORIUM

The Citrus Center recently lost one of its own - Humberto "Beto" Garza Sr. Beto worked at the center from 1953 until his retirement in 1992. During this time, he worked as Dr Richard Hensz's assistant and played a vital role in the laborious process of selecting new grapefruit varieties. He carried out the critical fieldwork, grafting, transplanting and nurturing thousands of grapefruit selections, out of which came first the Star Ruby, and later the Rio Red. During the 1983 freeze, the efforts of the field crew under Beto's guidance saved all but 32 of the 1200 Rio Red trees growing at the center.

After his retirement, Beto ran a nursery business he had started several years before. He was a regular visitor to the center, and was a member of the Budwood Program Technical Committee. The Garza family ties to the center were continued by his son Beto Jr., who worked here until 2001 when he left to help his father in the nursery.

In addition to being remembered for his contributions to variety development, Beto Sr. will also be remembered as a warm, caring person, with a delightful sense of humor - his jokes helped cheer his co-workers. He will be sorely missed.

EXOTIC CITRUS PESTS AND DISEASES - URGENT NEED TO PROTECT OUR CITRUS INDUSTRY

It is illegal to bring any citrus and closely related plant material into Texas from other states, but with the long borders of Texas, the Department of Agriculture is hard pressed to find resources to detect many of the illegal importations which do occur. The arrival of several new insect pests in recent years (citrus leafminer, Diaprepes root weevil, Asian psylla) illustrate how easily new pests can arrive. The weevil and the psylla were probably brought in on plant material.

Several Valley citrus representatives (Ray Prewett, Dwayne Bair, Clay Everhard, Paul Heller, Jim Hoffman, Buddy Walsh, John McClung and John da Graca) recently traveled to Austin and met with officials of TDA to discuss a proposed rule to improve enforcement of existing quarantine rules. They the attended a hearing of the Texas House Agriculture and Livestock Committee, where Prewett, Bair and da Graca presented testimony on the threats to the Texas citrus industry from these exotic pests and diseases, and the serious economic implications of their introductions. The brown citrus aphid, together with severe tristeza virus is of immediate concern, as are various fruit fly issues. Other serious exotic diseases include greening, leprosis, and variegated chlorosis.

John da Graca

LONG SERVICE AWARDS

Two employees of the Center were recently recognized by the University for their long service. Daniel Davila, Technician in the entomology lab, has been with the center for 25 years, and Fred Longoria, Farm Operator, has completed 20 years service. Their dedicated service is very much appreciated. Thanks guys.

THE COLORADO CONNECTION? ——-

A proposal has been floated that the U.S. construct a pipeline from the Colorado River to the Rio Grande to divert the 1.5 million acre feet of water that the U.S. provides annually to Mexico. The logic is that we'll keep ours and Mexico can keep theirs. Some 1.5 million plus acre feet versus 350,000 sounds good—until you really think it through.

Yes, it is technically possible to build such a pipeline, even to lift the water several hundreds of feet over several hundred miles so as to get it over the Continental Divide (which runs across far western New Mexico). Engineering aside, however, the fact is that **it isn't our water**, "our" meaning Texas and the Lower Rio Grande Valley. The Colorado's waters belong to several western states plus Sonora and Baja California. All those rights holders would immediately take to the courts to block any such transfer, with historical case law completely in their favor. Even Mexico, on behalf of Sonora and Baja, would use the U.S. courts and U.S. water law to keep the water where it is.

Thus, the Colorado is important to Texas only as leverage to impel Mexico to honor her obligation from Chihuahua and Coahuila. While sentiment may be building to use that leverage, it is unlikely that the State Department would do so.

About the only recourse we have as growers and municipal/industrial consumers of water from the Rio Grande is to keep the pressure on Washington—even as we watch our crops and landscapes dry up and die. We also need to strongly pressure Congress to 1) authorize the new water improvement projects with the Bureau of Reclamation, 2) authorize the funding for these new projects and 3) authorize the funding for those projects that were already authorized but not funded.

We must also better manage and conserve the water we have. Irrigation systems for efficient water utilization and conservation have already been proven to work in the Valley. Drip irrigation in melons, vegetables and cane, microsprayer irrigation in citrus, LEPA systems for many crops—all work well to produce more per acre with far less water. The startup costs, however, are not cheap—which is why they aren't more extensively used. Perhaps we should be pushing for grants and cost-share funds through the Farm Service Agency and other entities to help growers install these systems.

The 350,000 acre feet annually from Mexico is not the ultimate answer to our water needs. Had that water been provided in each of the five years of the current cycle, we would still be short of water, as it represents only about 27 percent of the water that we used annually before 1992 when water was plentiful. Then, the average annual water use was about 1.3 million acre feet; since the drought kicked into high gear, the average use has been about 770,000 acre feet. Not to minimize the importance of the deficit, even if the entire deficit were to be added into the reservoirs tomorrow, our reservoirs would still be over 3.2 million acre feet below conservation level. While it would surely help, the fact is that we need greater inflows—from all sources—and less withdrawals. Reduced conveyance losses through improved irrigation delivery systems coupled with conservation from better on-farm irrigation practices and systems will reduce withdrawals; greater inflows are up to the Almighty.

Julian W. Sauls, Ph.D
Professor & Extension Horticulturist

SUMMER INTERNS

The Center has a number of student interns working during the summer. Dr Louzada's training program with University of Texas at Brownsville continues, and three new students, Diana Muzquiz, Patricia Sanchez and Arelene Pacheco, have begun their training. Dr Patil is hosting four students from UT-Pan American, Erica Salinas, Etem Chu, Jose Garcia and Denise Santa Ana. Both these training programs are federally funded. In addition, a graduate student from Texas A & M University-Commerce, Radhika Thokala, is working with Dr Skaria for the summer. While these students will all be learning new skills while working here, they will also be contributing to the various research programs.

Eliezer Louzada, Bhimu Patil & Mani Skaria

Left to right Radhika Thokala, Etem Chu, Erica Salinas, Jose Garcia and Denise Santa Ana

CITRUS FRUIT AND TREE INSURANCE PARTICIPATION

On May 21, 2002 a group from the Texas citrus industry met with the Texas Agricultural Statistics Service to visit about the annual citrus crop estimates. Accurate crop estimates at the start of each crop year are critical to the industry. An overestimate can result in low offer prices from citrus buyers by indicating an over supply. Alternately a low estimate, while it might lead to an initial higher offer price, could lead buyers to start looking at other citrus regions in turn hurting market share for Texas. To avoid inaccurate estimates, we are looking at ways to get cross checks on estimates. Still the best method for an accurate crop estimate is your completing the form if you are selected in the sample. So be sure to complete the form if it is mailed to you.

Because the crop estimate is in part based on production acres, a method to cross check the crop estimate accuracy is based on alternate ways to get total acres in oranges and grapefruit. Since it has been almost 10 years since there was an actual field inventory, we are looking at participation levels in fruit and tree insurance as a method to validate total acres (visit this website http://www.rma.usda.gov/data/). At the time of the 1990 freeze, insured acreage participating in tree and fruit protection was almost 1:1 with 11,654 acres of insured fruit and 12,104 acres of insured citrus trees (Figure 1). Note, that in 1991 TASS estimated 11,000 acres in bearing trees. The year after the freeze the ratio of insured fruit to trees dropped to essentially 0:1 with only 169 insured acres of fruit to 17,542 acres of insured trees. It took 7 years, until 1998, for the ratio between insured fruit to tree acreage to build back to a 1:1 ratio. One thing that we seem to be seeing is that the insured trees gives a better approximation to actual acreage than insured fruit. The gap in the ratio after the freeze may be related to producers waiting until trees are bearing heavily at 5-6 years age before insuring fruit. Now, if we knew the ratio of insured tree acres to uninsured acres we would have a fix on total bearing acres. As it is, at least we have an approximation that should be an aid to what would be a reasonable estimate of producing acreage.

Hey, did any of you catch the article in the New York Times, 5/22, on how to make grapefruit chips? I haven't tried it yet, but the deal is slice thin, sprinkle with sugar (chili powder for Texans), and dry in a warm (200 deg.) oven. In a similar vein, while in California on a recent trip I had a freeze dried grape. Not bad either! Wonder what it would take to make it a freeze dried grapefruit?

Gary McBryde
Agricultural Economist,TX A&M Kingsville

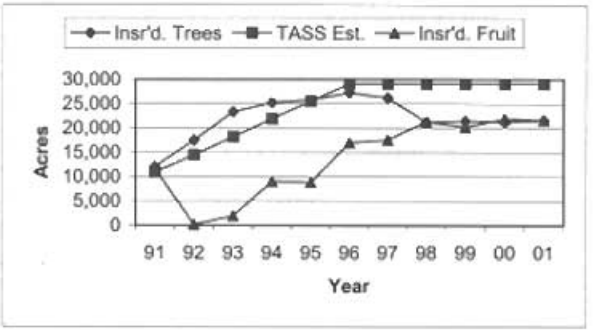

Figure 1. Acres of Insured Citrus Trees, Citrus Fruit, and Estimates of Total Bearing Citrus Acreage by the Texas Agricultural Statistics Service (TASS) from 1991-2001.

BARNACLE SCALE ON THE INCREASE

Barnacle scale, *Ceroplastes cirripediformis*, was found in several Western Valley orchards. Considered a minor Texas citrus pest, early season barnacle scale populations were high enough to warrant chemical spray treatment at some infestation sites. Lorsban 4E® was generally used for control, but Esteem EC® was also applied.

Its name comes from the barnacle-like shape of the adult female's covering or 'test' (Fig.1). The test is dusty white, with 6 angular plates on the sides and 1 on the top—each with a distinct spot. The adult height almost equals its width. The female deposits eggs beneath the test, hatching into brown crawlers that migrate onto leaves and twigs. They settle and begin to feed, becoming white and 'stellate shaped' as secreted wax accumulates on the body. The nymphs turn a mottled brown with tuft-like projections on the test (Fig.1 insert). The test again becomes white upon maturity to the adult stage. Completion of the life cycle requires about 3 months, generally with 2 generations per season. Barnacle scale seldom infest fruit, but whole trees and orchards are at times blackened by sooty-mold fungus growing on the honey dew secreted by these 'pesky' insects after feeding.

J.Victor French

GRADUATE STUDENT SYMPOSIUM

The Citrus Center hosted the third Annual Graduate Students Symposium of the TAMUK Department of Agronomy & Resource Sciences. Several students came down from Kingsville came down to join those who are at the Center to present their research reports. Nine students were on the program, which also included presentation of awards to best teacher, undergraduate student and graduate student in the department (all from Kingsville this year). Citrus projects that were presented were on various aspects of Dr Patil's functional food research, partial genome transfer and tristeza resistance gene identification in Dr Louzada's lab, and predacious mite research in Dr French's lab. Kingsville students spoke on their work on Opuntia cultivation, and haploid cucurbit plant production.

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VISITORS TO THE CENTER

The Center had a number of visitors recently. **Rosalie & Stewart Dobson**, fruit growers from Kununura, Western Australia, came on a study tour to learn about red grapefruit production. **Ignacio Moreno Murrieta & Enrique Aranda**, accompanied by 6 students, came from Monterrey Tech. Company reps who came by included **Gary Schwarzlose & Henry Yang** (Aventis), and **Roy Parker & David Judge** (Uniroyal). A group of 8 academics from 3 historically black colleges and universities attending a workshop hosted by USDA-ARS in Weslaco, took time out to visit Dr Patil's lab; they are **Shoba Sriaharan, Gollakota Jagannathan, Gloria Young & Djavad Djavadi** (Virginia State University), **Linda Hayden, Francisco San Juan & William Porter** (Elizabeth City State University, N.Carolina) and **Lionel Lyles** (Southern University in Baton Rouge).

Left to Right
John da Graca,
Rosalie and
Stewart Dobson

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