

# CITRUS CENTER

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WESLACO, TEXAS 78596

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## NEWSLETTER

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### THE CITRUS INDUSTRY, THE CITRUS CENTER, AND I LOSE A GREAT FRIEND

We all lost a great friend and supporter when Wayne Showers passed away recently. If the citrus industry, in general, and the Citrus Center, in particular, ever had true friends that were always ready and willing to help without asking anything in return, Wayne had to be one of them. From the many positions he held, in the citrus and vegetable industries, with the Texas A&M University System, with his political affiliations, and with the many service organizations to which he belonged, Wayne was always willing and ready to help. Ray Prewett said of him: "One of Wayne's trademarks was starting or finishing a conversation by saying: "how can I help you?" Did your son or daughter need to get to college, or get into a dorm once admitted to college, or maybe had a little problem with his or her grades? You went to see Wayne. And it didn't need to be A&M, although it was preferred. He wrote a beautiful letter of support for my son-in-law that helped him get admission into the MBA program at the University of Texas. He worked with alumni from varied institutions to form alliances that helped Valley kids get into college. Through his long association with Griffin and Brand of McAllen, Inc., he helped young people either by providing summer jobs so they could save money for



Left - Jose Amador

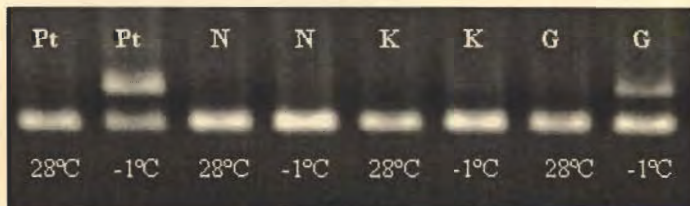
Right - Wayne Showers

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### IS RIO RED GRAPEFRUIT COLD-HARDY?

In the August 1990 Citrus Center newsletter (Vol.8, no.4, p.4), Dr Richard Hensz reported that the mother block of 3-4 year-old Rio Red grapefruit trees survived the freeze of 1983 very well, with no wraps, banks or heat. In addition, growers reported that in the aftermath of the December 1989 freeze, Rio Red trees appeared to survive better than other varieties, and the mother block of 10-11 year-old trees at the Center recovered quickly from freeze damage. Is Rio Red more cold hardy than other grapefruits? We don't know for sure, but some very interesting observations were made in our lab recently. There appears to be a gene in Rio Red which resembles the one that is involved in the acclimation process of the cold hardy trifoliate orange that seems to be part of the mechanism of hardening the tree to endure low temperatures. More studies are now underway to compare Rio Red with other grapefruit varieties. If it proves to be true, it could give some peace of mind to the Valley's citrus industry. The aims of the research into cold-hardiness are not to expand citrus production far to the north of us, but to protect the local industry from the devastating effects of freeze damage.

Eliezer Louzada



The upper band represents the cold responsive gene in trifoliate orange (Pt) and Rio Red Grapefruit (G), but is absent in a mandarin hybrid (N) and Mexican lime (K).

## GRADUATE STUDENT PROGRAM SUCSESSES CONTINUE

The Citrus Center's graduate student program continues to bear fruit (or students!). This August, two PhD students graduate in College Station, and four MS students graduate in Kingsville. This will bring the total which have graduated since 1998 to 20. All have either continued on to PhD programs or have found good jobs.

The new PhDs are:

**Jairam Vanamala** - he came to Texas from India, and worked under Dr Patil's guidance on quantification of bioactive compounds in different brands of grapefruit and orange juice. He also studied the effect of irradiation on bioactive compounds and their role in colon cancer. Results showed that compounds such as limonin, naringin, grapefruit pulp and irradiated grapefruit help in reducing the risk of colon cancer in animal studies. He conducted his work in the Vegetable & Fruit Improvement Center (VFIC) and in the Animal Science Department in College Station, as well as at the Citrus Center - a good example of interdisciplinary research. He has been hired as a post doctoral researcher at Texas A&M in College Station.

**Jun Yu** - a citizen of China, he is the first student to obtain a PhD as part of the Cooperative PhD program in Horticulture between College Station and Kingsville and was also a student of Dr Patil working in both the VFIC, Animal Science Department and the Citrus Center. His project was on the isolation and characterization of limonoids from grapefruit using an environmentally friendly method called "super critical fluid". The compounds were tested for their antioxidant activity, and their role in reducing cholesterol. He is now a post-doctoral fellow in the Florida Department of Citrus in Lake Alfred.

Our new masters graduates are:

**Adriana Robbins** - she is the second student from a special program funded by USDA-Hispanic Serving Institutions Program in Dr Louzada's lab. She was one of the UT-Brownsville undergraduates who obtained hands-on training in his lab, and then went on to a masters degree. She studied the genetics of cold tolerance in trifoliate orange. She will begin a PhD program at College Station in the Fall.

**Sreenath Palle** - he came to Texas from India to study under Dr da Graca and Dr Skaria. The topic of his research was the natural transmission of psoriasis disease, and he has provided evidence suggesting that a soil-inhabiting fungus may be responsible. He will also pursue his PhD at College Station.

**Craig Kahlke** - while managing the budwood program at the center, he studied part-time for his masters under Dr da Graca's supervision. Craig now works at Cornell University, Ithaca NY.

**Julien Shantidas** - an Ag.Business major, he was advised by Dr Shad Nelson and conducted an economic evaluation of water conservation and fertility management on citrus productivity.

At the May graduation ceremony in Kingsville, **Marco Ponce** received his masters degree. He is an extension agent with Texas Cooperative Extension, and was advised by Dr Patil and Dr Randall Williams in Kingsville. His project included an evaluation of a conference called "Students Taking Responsibility to Investigate the Value of Education" arranged to attract under represented students towards careers in agricultural and food sciences.

**Eliezer Louzada, Bhimu Patil, John da Graca, Mani Skaria and Shad Nelson**



Left to Right Jairam Vanamala, Bhimu Patil and Jun Yu



Marco Ponce



Left - Adriana Robbins  
Right - Sreenath Palle

## END OF ONE ERA, START OF A NEW ONE

In August, the 20-year lease that the Citrus Center has had on the West Farm at Mission comes to an end, and the farm will be returned to the Looney family. The orchard operations were handed over at the end of the last season. During the 20 years, many research programs were carried out there including rootstock, fertilizer, pesticide and fungicide trials. Our sincere thanks go to the Looney family for their generous offer to lease the farm to the center - we are pleased that for the time being the citrus operation there will continue. One of our final operations there was the removal of the mobile home in late July.

A new era now begins with the lease we now have with Rio Farms at Monte Alto. This land was chosen because the soil types closely match what exist at the Mission farm. The mobile home that was at Mission is now at Monte Alto, and one of the center's employees has agreed to stay in it. Fencing of the land will begin shortly, and the first trees will be planted in the Fall.

### John da Graca



Top - Trailer leaving West Farm in Mission.  
Bottom - Arriving at Rio Farms in Monte Alto.



## NEW FACES AT THE CENTER

The Citrus Center recently welcomed some new employees:



**Dr Deepak Dandekar** has just been hired as a Research Associate in Dr Patil's Functional Food Lab. He arrived in Weslaco direct from India, and will add to the productivity of this lab.



**Ruben Gonzalez** has joined the Nursery and Budwood Program department, and works under John Watson in providing budwood to the nurseries of Texas.



**Harold Rhodes** has been hired as a Farm Worker, and his appointment brings Elias Hernandez' crew up to full strength.

We welcome all the new employees to the Center and hope they will enjoy their careers with us.

### John da Graca

## CITRUS BUDWOOD PROGRAM UPDATE

The Texas Citrus Budwood Certification program at the Citrus Center has continued to assist the commercial industry by providing virus-free budwood to local growers and nurseries, with Rio Red grapefruit, Valencia orange, and N-33 navels making up the majority of cultivars requested. With the onset of the new citrus industry regulations and enforcement by the Texas Department of Agriculture (January 2004), cooperation has been great. Hopefully, with continued education and visits to other citrus producing areas of the state (Houston-Gulf Coast areas and north to Beaumont Golden Triangle area), growers, nurseries, and hobbyists statewide will see the importance of growing and producing virus-free citrus cultivars.

On a related note, the interest in non commercial citrus varieties statewide has really exploded this past year, with both common and odd mandarin types of budwood being requested. The budwood program has essentially "expanded" its operations this year to acquire and reproduce numerous virus-free mandarin cultivars for interested nurseries, hobbyists, and collectors. With the commercial citrus industry being stable, niche markets of unusual citrus cultivars for production are beginning to evolve statewide. Initially, the amount of budwood available for these mandarins was low, but the

budwood program will continue to produce and expand these virus-free cultivars so that we can provide all interested parties statewide (commercial growers, wholesale and retail nurseries, hobbyists and collectors) a large array of virus-free citrus cultivars in order to keep the entire citrus industry healthy.

**John Watson**

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college or by supporting numerous scholarships or other student-aid programs that helped students pay for high school, college and graduate school. You wanted to get something done in Austin or Washington, and needed political influence? You went to see Wayne. You had a particular project and needed help from the local industries, whether citrus, vegetable, or whatever? You went to see Wayne. And his unselfishness was obvious and self evident. Often, after I went to Wayne seeking help for one thing or another, I would ask him: "Wayne, how can I reciprocate for all the things you help me with?" His answer, which after a time would become predictable always would be: "you don't need to do a thing; just be my friend". And that he was, of all of us who knew him. We'll miss him.

**Jose Amador**

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