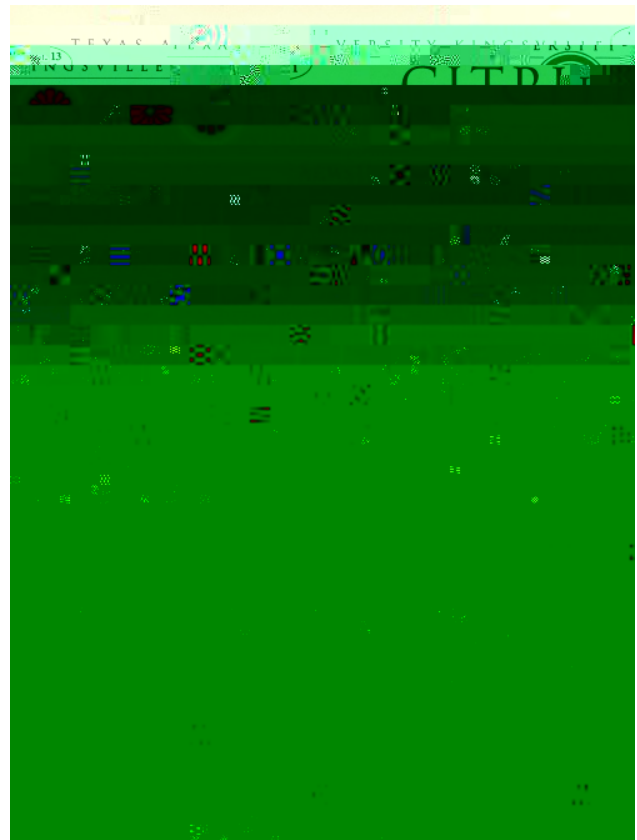
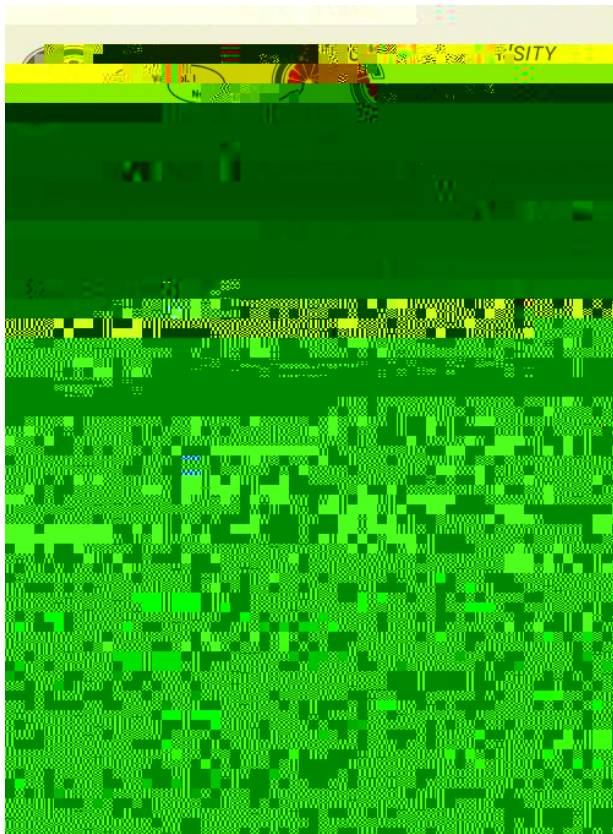




## New Look for the Newsletter

*John da Graca*

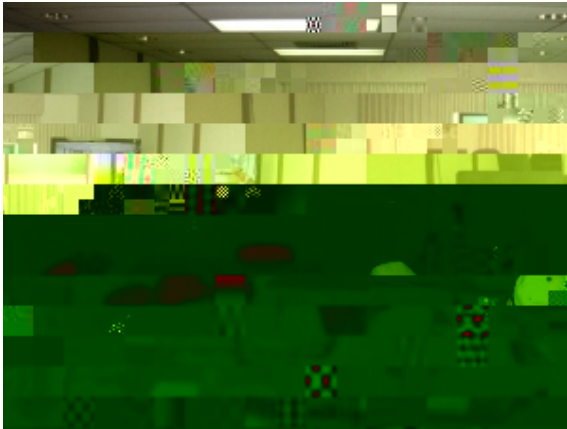
The Citrus Center newsletter was first published in 1983, and it kept the same front page design for 12 years until 1995. Another 12 years has passed, and a fresh look to the newsletter seemed overdue. The new look was designed by Rosanna Elizondo-Villarreal, wife of the Center's IT specialist Adam Villarreal, and all administrators and faculty agreed it was the best. We hope you like it too.



## Video Conference Facility at the Citrus Center

*John da Graca*

Renovations at the Agricultural Research & Extension Center in Weslaco necessitated disconnecting the Trans Texas Video Network (TTVN) equipment there. One set has been moved to the Citrus Center and is now operational. During the Summer II semester, graduate students at the Center have been taking a statistics class from Kingsville via TTVN (see photo), and in the Fall Dr. Louzada will teach his biotechnology class from Weslaco, and Drs Bhimu Patil and Marla Binzel of the Department of Horticulture will teach classes to students here from College Station



## Pesticide Control Guide Now Available in Spanish

*Boris Castro*

In the June 2007 newsletter the publication of the updated Citrus Pesticide Control Guide was announced. In response to several enquiries, the guide has been translated into Spanish, and is now available in both printed form and on the Citrus Center webpage:

<http://kcc-weslaco.tamu.edu/index.html>

This should be useful to Spanish-speaking citrus growers and workers on both sides of the border.

## Guía de Plaguicidas para el Control de Plagas en Cítricos Ahora Disponible en Español

En la carta informativa de Junio del 2007 anunciamos la publicación actualizada de la Guía de Plaguicidas para el Control de Plagas en Cítricos. Como respuesta a varias inquietudes, la Guía ahora esta también escrita en Español y además esta disponible en versión en papel y en la página Web del Centro de Cítricos:

<http://kcc-weslaco.tamu.edu/index.html>

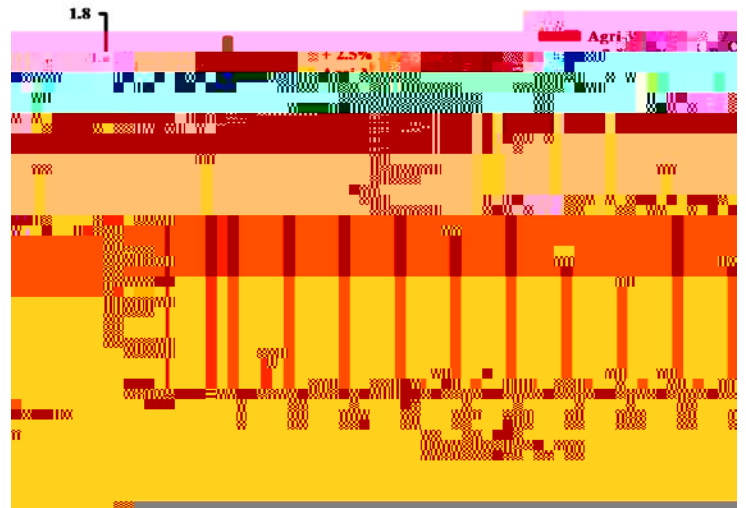
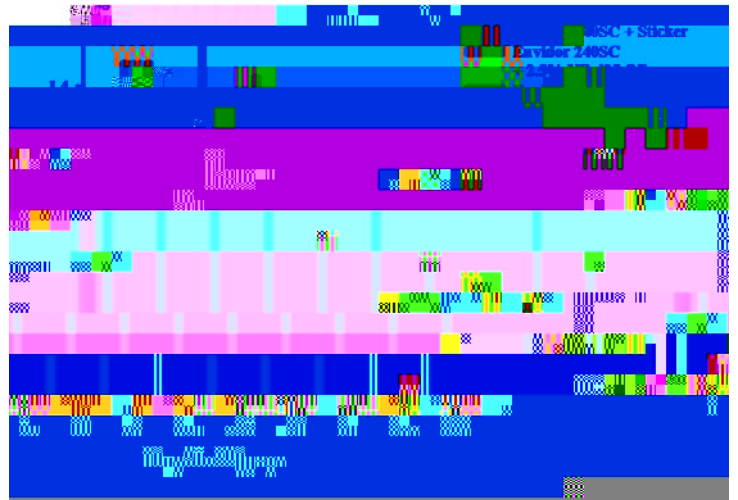
Esta versión será de mucha ayuda para productores de habla hispana y empleados de campo en ambos lados de la frontera.

## Pest Alert: False Spider Mites

*J. Victor French and Mamoudou Setamou*

False spider mites (FSM), *Brevipalpus* spp, traditionally reach highest levels in Valley citrus orchards in mid to late summer. This season is no exception with FSM infestations building in several orchards currently being monitored for mite and insect pests. All too often growers are unaware of these 'pesky critters' until their feeding injury begins to show up on the green developing fruit. Circular chlorotic yellow spots first appear that gradually turn into distinct brown necrotic raised lesions on fruit rind or peel. The spotting is often referred to as 'nail-head rust' and is more common on grapefruit than oranges—the former apparently the preferred host by FSM. Fortunately we have not observed any nail-head rust in orchards this season, but it is only a matter of time if FSM infestations are not controlled.

See Pest Alert Page 4



# This is Right Time to Fix Packinghouse Air Quality Issues

*Mani Skaria*

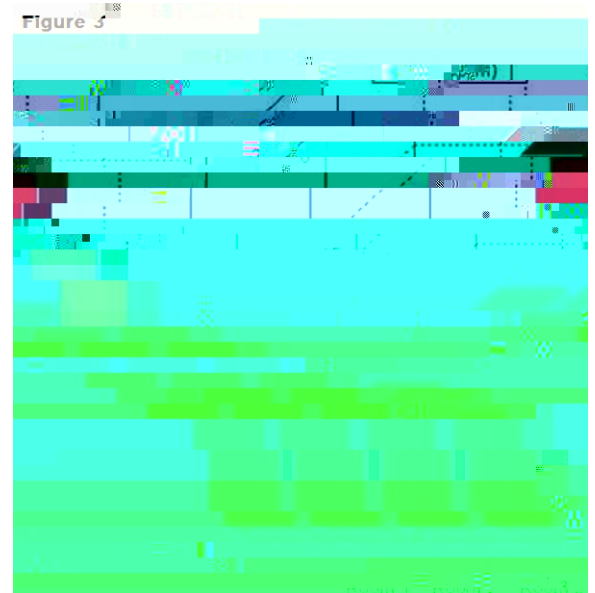
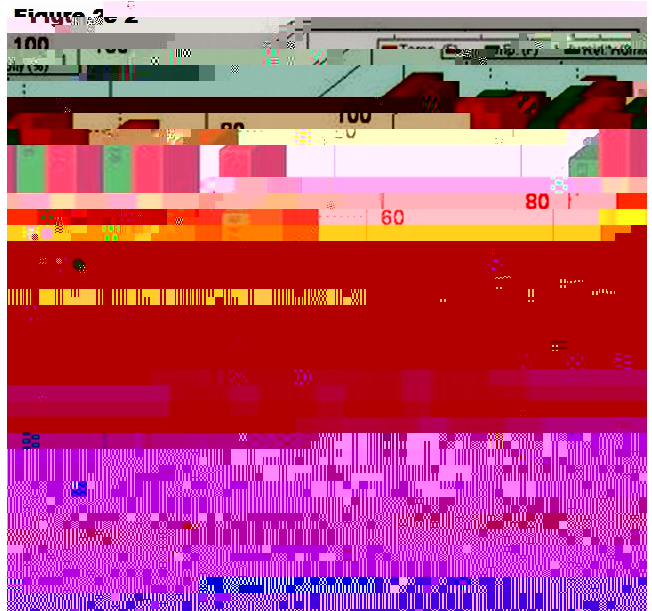
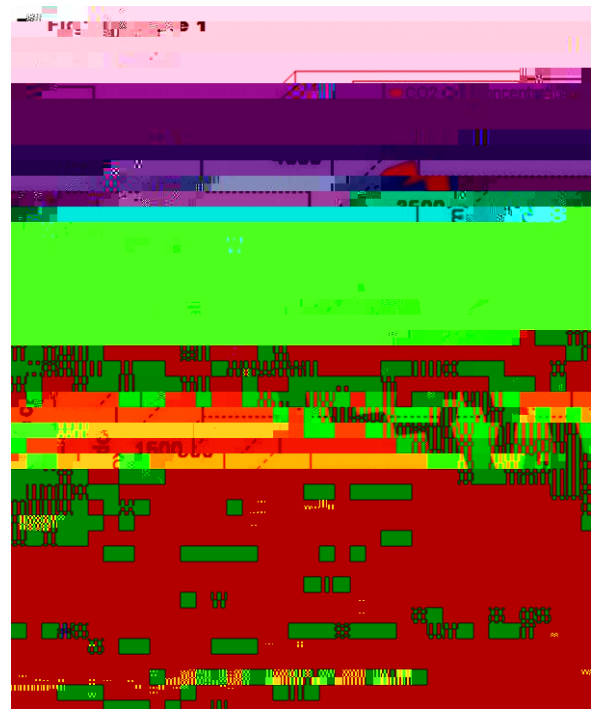
“Delivery problems” are very familiar to citrus shippers, especially in the early season. The fruit often arrives at its destination bruised and rotten. This fruit damage is not visible at time of shipping. The major fruit rots are stem-end rot, sour rot, green mold, blue mold, and brown rot, all caused by fungi.

The degreening process applied to mature, but green, fruit involves the application of ethylene, higher temperature, and higher relative humidity to induce color change. These conditions are also ideal for the development of stem end rot as a result of the growth of fungal spores embedded in the fruit.

Our previous studies in Texas packinghouses have shown that you may have more control over reducing the degreening- related fruit rot if you have the following:

- A precise system to deliver and monitor the ethylene gas in degreening rooms
- Improved fresh air exchange in degreening rooms
- An ability to test for carbon dioxide and carbon monoxide level in degreening rooms
- A precise test for relative humidity
- Regular removal of infected fruit and cleaning of contaminated surface area
- Stem end rot control awareness workshop for the fruit handlers

These measures may sound routine; however, many people fail to achieve a good degreening operating system and every year we see problems. The figures given below show the diversity in air quality parameters that we have measured in the past. Figure 1 shows a wide range in the carbon dioxide concentration in 14 degreening rooms. Figure 2 shows the temperature and relative humidity in four degreening rooms and Figure 3 shows the carbon monoxide in four degreening rooms. The degreening rooms are expected to register more or less similar values. A wide range of values among different degreening rooms in the Valley as shown in the figures indicate that there are some problems to be fixed in some of the degreening rooms. The simple steps given above will definitely produce better control over “Delivery problems,” especially in the early part of the coming fruit season when you have to degreen fruit.



# Science Summer Camp for Weslaco High School Students

*Eliezer Louzada*

Science teaching has been a challenge for many high schools due to the fact that only theoretical lectures, even with the best text books, do not meet the need for student's learning. At the same time it can become very expensive to maintain experiential learning classes, which will require many pieces of equipment and expensive consumables. Furthermore, science teachers are not trained to conduct this kind of teaching, which means that school districts will have to invest in teachers training. Who pays the highest price are the students who are deprived of important knowledge which could change the course of their lives.

To address this problem, the biotechnology laboratory of Texas A&M-Kingsville Citrus Center, directed by Dr. Louzada, entered into a partnership with the Weslaco Independent School District's Science Department to provide a Science Summer Camp for High School students from the two Weslaco High Schools at the Citrus Center. They submitted a grant proposal to USDA-Hispanic Serving Institution Educational Grants Program, and were funded for \$ 245,000. With these funds they will equip two high school labs with high tech equipment, will provide hands-on training through a science summer camp for high school students and train some science teachers. This partnership can have a great impact in the lives of many local students.

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## Pest Alert from Page 2

Kelthane MF (dicofol) a very effective miticide for FSM control was recently removed from the market. This has intensified the testing of alternative chemicals for its management. Data from two trials conducted against FSM in 2006 are shown herein. Chemical spray treatments were applied by commercial air blast (200 gal/Acre) to randomized plots of mature 'Rio Red' grapefruit trees. In Trial One—Envidor SC (spirodiclofen) miticide at 18 oz/A in combination tank mix treatments with: Active Plus sticker; 2.5% (5 gal/A) NR 435 petroleum oil; or 0.5% (1 gal/A) Citri-King citrus oil, all provided rapid knockdown and effective long term (ca. 100 days) control of FSM (Fig. 1). In Trial Two—Agri-Mek (abamectin) at 10oz/A in tank mix treatments with: 2.5% NR 435 petroleum oil; or 0.5% Citri-King citrus oil were slightly less effective, with low FSM populations persisting in sprayed trees throughout the trial period (Fig. 2). Based on these data, Envidor SC provided superior FSM control. Moreover, Citri-King a cold pressed oil obtained from citrus peel appears to be an excellent alternative to petroleum oil in combination tank mixes with various miticides.

Mention of a trademark, proprietary product, or vendor does not constitute a guarantee or warranty of the product by the Texas A&M University-Kingsville Citrus Center and does not imply its recommendation to the exclusion of the other products that may also be suitable.

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