TEXAS A&M UNIVERSITY-KINGSVILLE

CITRUS CENTER

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NEWSLETTER

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FROM THE CENTER DIRECTOR'S DESK

It's truly a pleasure for me to be here in the beautiful Rio Grande Valley and to have the privilege of being a part of the Texas A&M Experiment Station and the Texas A&M-Kingsville Citrus Center. What a nice contrast it has been, leaving the snowdrifts of New Hampshire behind and enjoying the mild south Texas "winter". I am looking forward to many exciting challenges as we strive to make the Center's positive impact on the Valley as great as possible. Since I am new to the Valley and the Center, I am spending most of my time getting up to speed with the many programs at the Center, as well as all the "nuts and bolts" issues. One of the first important items we are facing is a Center review at the end of February by the Vice-Chancellor of Agriculture & Director of the Experiment Station from College Station, Dr Elsa Murano and her team. She has

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THE HONEY WASP

Often one of the Citrus Center's field workers will report to me about finding a large bee colony inside a citrus tree. The worker at times is stung by the critters if he abruptly moves the branches and foliage near the colony. Upon inspection I usually find that the colony is that of the honey-making wasp, *Brachygastra mellifica,*—a most fascinating insect common to the Valley and the subtropics from Mexico to Argentina. They make paper combs like other wasp species, but store honey in the combs like bees. When disturbed they also quickly take to flight, swarm like bees and are important plant pollinators. It is not unusual for the combs to be up to 1 ft in diameter and more that 2 ft long (Fig. 1). The comb often completely surrounds a limb (Fig. 2), which at times I have successfully cut from the tree, all the while maintaining the comb/colony intact to be caged and taken to the laboratory for study.

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Julian Sauls Bob Wiedenfeld

JULIAN SAULS WINS POTTS AWARD

Dr Julian Sauls, Extension Horticulturalist with Texas Cooperative Extension, was presented with the Arthur T. Potts Award at the 2006 annual institute of the Rio Grande Valley Horticultural Society in January by Bob Wiedenfeld, chairman of the awards committee.

Julian Sauls was born in Mississippi, and obtained his BS and MS degrees in horticulture at Louisiana State University, and a PhD from the University of Florida. After 2 years working in Honduras and Mexico, he became an extension agent in Tarrant County in 1973 for 2 years, then spent 5 years in extension in Florida, returning to Texas in 1980 to take up the extension horticulturalist position in Weslaco where he remains today. He has developed the overall extension citrus educational program in cooperation with county agents, growers, industry representatives and scientists, developed the Texas Citrus Handbook which in 1997 he used to create the Texas Citrus and Subtropical Fruits website. In addition, he has published over 100 extension publications, and since 1987 has written a monthly newsletter. He is an active member of the society, having served as its president for two terms.

In his acceptance speech, Sauls said that the award has special meaning for him because Arthur Potts did citrus research in the Valley in the 1940s, and Julian is being recognized for his own work on citrus.

Congratulations, Julian, for a well deserved honor.

John da Graca

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In reviewing the literature I found numerous articles written about the honey wasps, several in the early 1920's. One of particular interest written by Frank Goodwyn and entitled "Life On the King Ranch" tells about a visit to the ranch and an interview with Pablo Pena—one the ranch hands. He describes their search for " black bees that build a round nest of paper-thin comb and hangs it to the limb of a mesquite tree". The honey in the comb is thin as water, very sweet and sought after by all their crew. According to Pablo he often put a dose of the honey droplets in his eyes that greatly improved his vision. However, when the Goodwyn tried the honey treatment his eyes itched terribly and he was unable to see well for several hours. The King Ranch is in Kleberg and Kenedy Counties and is the northern-most location in the United States that the honey-making wasp has been found.

A special effort is made to remove and relocate honey wasp nests found on trees in any Citrus Center blocks facing chemical sprays for pest control. It is imperative that we strive to protect this small industrious wasp species since their numbers continue to decline and they could face extinction.

J. Victor French

Fig. 1 Large honey wasp nest/comb in citrus tree.

Fig. 2 Honey wasps on comb surrounding a citrus limb.

CITRUS GREENING AND PSYLLID SURVEY IN TEXAS

The discovery of Asian greening in citrus in Florida has raised concerns in other citrus-producing states in the US (see October 2005 newsletter). This is especially the case here in Texas since the insect which transmits greening, the Asian citrus psyllid, has been present in the Lower Rio Grande Valley since 2001. A statewide survey of citrus is therefore going to be conducted to determine if any trees are infected with this disease, and how widespread the psyllid has become. This survey is being funded by USDA-APHIS-PPQ.

In the Valley, federal inspectors will examine trees for greening-like symptoms, and collect samples for laboratory diagnosis. The Citrus Center will survey Valley nurseries, and will also conduct surveys for both the disease and the insect in and around Houston and the Gulf Coast from Corpus Christi to the Louisiana border. This area has many trees, mostly in dooryard situations, but there are small groves as well. We have not received any reports of psyllids from these areas, but no intensive surveys have been done so far.

Leaf samples and psyllids will be sent to USDA laboratories for analysis. These laboratories are capable of handling large numbers of samples, and since samples will also be collected in Arizona, California, Louisiana and Puerto Rico by others, all will be analyzed in a standardized manner.

Citrus Center personnel already have run some training sessions for inspectors, and for some residents of Valley trailer parks where many citrus trees grow, on how to recognize greening. Images of the symptoms of greening and the vector will also be posted on the Texas A & M University Horticultural Department website.

John da Graca, Victor French & Mani Skaria

DIAGNOSTIC GUIDE

By now, everyone is probably aware that citrus canker was so widely spread across Florida by hurricanes, especially Hurricane Wilma this past year, that eradication is no longer a viable option. Consequently, the decision has been made to stop the eradication program as it previously existed and to develop a new strategy that will enable the industry to live with the disease.

Too, Asian citrus greening has been detected in 11 different counties in Florida since its initial identification in August, which means that it is too widespread to try to eradicate. Thus, the Florida industry is developing strategies to try to live with this problem as well.

These decisions do not bode well for Texas citrus, inasmuch as it seems that sooner or later we get whatever pest Florida has. One has only to look at the citrus leafminer and the Asian citrus psyllid as examples of pests that spread to Texas from Florida. While it is believed that the psyllid came in on unregulated alternate hosts, possibly orange jessamine, there is no real agreement on how the leafminer arrived here. One possibility is the illegal importation of citrus trees from the east (Louisiana, Alabama, and Florida), as it is widely known that many such trees routinely are brought into Southeast Texas.

It behooves us to try to close that pipeline, but we have not succeeded in the past, so there is little expectation that we could accomplish that now. A lot of effort is presently being expended to survey for citrus greening in the Valley, with additional work outside the Valley. However, with Florida's recent problems, we have to do more.

Texas Cooperative Extension has obtained imagery of citrus canker and citrus greening from the Division of Plant Industry of Florida's Department of Agriculture and from colleagues at Lake Alfred. These images, with others from Drs. Skaria, French and daGraca at the Citrus Center, are being prepared for a web-based diagnostic guide that we hope to have on-line before the month is out.

While this guide will be useful for Valley citrus growers, the target audiences are County Extension Agents, home gardeners and Master Gardener Coordinators and volunteers from here to the Sabine River. Our hope is that with such awareness at the grassroots level, just maybe we can get lucky and stop these diseases before they reach the Valley.

The pests and diseases that will be featured are the Asian citrus psyllid (the vector of greening), since we really don't know its present range in Texas; citrus greening; and citrus canker. Because we don't want to lose sight of *Citrus tristeza virus*, we will also include imagery of the brown citrus aphid, since it is the feared vector of this dread disease and it has been in Florida for several years, but not yet in Texas.

Hopefully, everything will be completed and on-line before March.

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

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been conducting reviews of all of the Texas A&M research units on and off campus. We expect that this in-depth review of our programs and operations will have a significant impact on our future, and I have been focusing much of my energy and time preparing for this important event.

In the future I will use this column to keep you informed of significant activities, events and issues at the Center. In the meantime, I am looking forward to meeting everyone, and to hearing your ideas as to how we at the Center can deliver the maximum possible positive impact to the citrus industry of Texas.

Michael Gould, Center Director

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