



## Citrus Center Celebrates 60 Years of Service

On December 17, the Citrus Center hosted a luncheon to celebrate its 60<sup>th</sup> anniversary. Over 200 guests representing elected officials, University leaders and staff, citrus growers and nurserymen and fellow research and administration colleagues from other centers in the Lower Rio Grande Val



*Mani Skaria, John da Graca,*



Figure 1 Melanose symptoms on grapefruit leaves and fruit. Raised, dark pustules give a sandpaper effect when rubbed.

# **Proactive Spray Programs Proved to be Better Control Approaches for the Citrus Rust Mite in Texas**

*Mamoudou Sétamou and Danielle Sekula*

Most of the citrus pro

In contrast in the spring spray initiation of April, temporarily CRM population suppression was observed after each miticide application and populations started to build-up again soon after (Figure 1A and Figure 1B). A possible explanation of the high effectiveness of early initiation of spray applications of miticide lies in the fact that CRM densities per tree were low in winter (January to March) when the miticide was applied. Early miticide spray applications during winter may have reduced CRM populations to near zero levels, thus preventing rapid build-up. In addition, the lower temperature and light intensity prevailing in winter relative to spring may have improved the residual control of miticides applied between January and March. In contrast, wa0 0.000045.4371 0.8450

# Season-Long Control of Asian Citrus Psyllid in Texas, vector of Citrus Greening Disease

*Mamoudou Sétamou and John da Graça*

The threat of citrus greening disease (= Huanglongbing [HLB]) in the U.S. requires the development of an effective control program for its insect vector, Asian citrus psyllid (*Diaphorina citri*). Citrus greening disease is probably the most serious citrus disease in the world for which no cure is presently known. Symptoms of affected trees are recognized by asymmetrical blotchy mottle on the leaves and vein corking (Picture 1). Fruit production is dramatically reduced through fruit drop, with remaining fruit becoming lopsided with aborted seeds, and the bottom portion remaining green. In addition, the button holding the fruit to the stem dries up and appears brownish once the fruit is cut open (Picture 2). It is important to note, however, that many other diseases such as Phytophthora or foot rot can produce lopsided fruit, without the other fruit symptoms. Greening-affected trees slowly decline and die within a few years. The disease was detected in Florida in 2005, spreading to most of the citrus producing counties, and in two parishes in Louisiana in 2008. ***As of now the presence of the disease has not been confirmed in Texas, but the long latency period that characterizes the appearance of disease symptom after infection does not authorize inaction in Texas.***

Although there is no known cure for the disease, strong evidence is available worldwide that psyllid control reduces the spread and incidence of the disease. In areas where only the vector is known to occur, it is very likely that effective control of the psyllid vector will substantially lower the risk of the disease. To be effective, psyllid control has to target the pest everywhere it is found including in groves, nurseries, dooryard and public lands. Because of the traditional use of pest control practices in their operations, growers and nurserymen can easily incorporate psyllid control in their pest management programs. ***Psyllid control does not requires any drastic change in your operations, only changes of timing and possibly the addition of few chemical formulations in your tank mixes.***

Several effective chemicals are registered for psyllid control in Texas (Table 1). ***The choice of each chemical will depend on the time of the year and also the array of additional pests you want to target.*** In general, broad spectrum insecticides will be used in winter and fall, while insecticides with systemic and translaminar activities will be preferred in spring and summer. ***Psyllid is best controlled just prior to the production of new flush shoots.*** The objective is to avoid the reproduction of new psyllid generations on these new flushes. Thus it is important to carefully monitor your groves or plants and spray before feather-like flush shoots are profusely produced. ***Invariably, the first spray of the year is recommended as a dormant spray in January-February before the spring flush.*** Subsequent sprays will depend on your grove-care or nursery-care operations. Generally, it is important to plan for a spray application two to three weeks after irrigation or after pruning the trees, as new flush shoot production is expected after these grove care operations. ***We need to always keep in mind that the threat of citrus greening is real, and vector control is currently our available solution.***



**Picture 1:** Leaf symptom of greening infected trees; Observe vein corking and asymmetrical blotchy mottle



**Picture 2:** Fruit symptom of greening infected trees; See aborted seed and brownish area at the button location

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| Active ingredient | Trade names          | Efficacy on ACP* | Primary Use | Recommended for ACP in Texas | Comments   |
|-------------------|----------------------|------------------|-------------|------------------------------|--|
| Abamectin         | Agri-Mek, Abba, Zoro | ++               | M, I        | Yes                          | Knock down effects only, no long term control observed |
| Imidacloprid      | Provado              | +++              | I           | Yes                          |  |
|                   | Admire Pro           | +++              | I           | Yes                          | For non-bearing trees or nursery plants                |
| Spirotetramat     | Movento              |                  |             |                              |  |

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