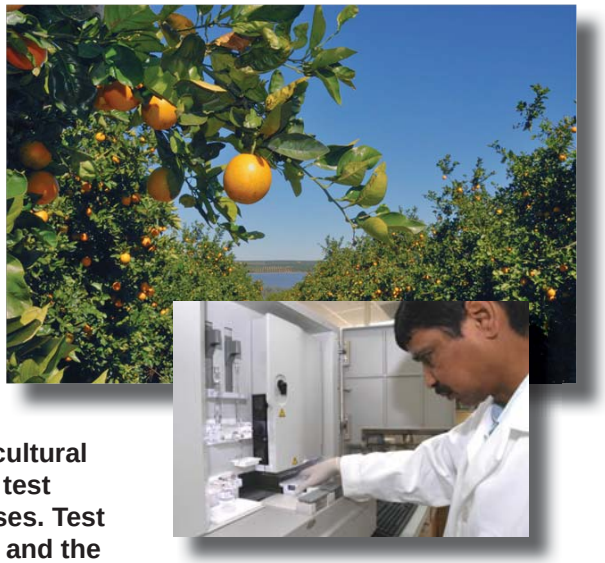
Citrus Health Response Program Update

June - July 2009

A publication of the Florida Department of Agriculture & Consumer Services, Charles H. Bronson, Commissioner

SHARE Program Overview



The Division of Plant Industry developed the Business Plan Share Program to assist growers and Florida's citrus industry in a systematic effort to monitor and help control citrus canker, citrus greening and the Asian citrus psyllid. The project is administered under the state's Citrus Health Response Program (CHRP), and provides for field scouting and sampling activities as well as data management and communications support services. The Program uses the Division's scientific resources in addition to CHRP and other funded sources to analyze pest samples and evaluate data generated.

SHARE is a voluntary program in which interested growers can provide their CHRP Business Plan information to the Division, including pesticide and nutritional applications, and other relevant cultural practices. In cooperation, the Division agrees to scout one or more test blocks on a recurring basis for endemic and exotic pests and diseases. Test blocks are examined in a consistent scouting pattern for tree health and the presence of insects and diseases. Samples are taken for analysis and individual test results are made available to the participating grower. Patterns and trends in the data are expected to develop as the study of pests and the conditions of participating trial blocks continue. It is anticipated that field observations and data collection efforts eventually will lead to statistical reports, regional pest incidence and disease management information of notable significance to the citrus industry.

The Share Program began as a pilot project in July 2008. During the 11-month course of the project:

- ✓**It has grown from five (5) blocks in a single county to 31 blocks in 11 counties.**
- ✓**It now consists of 1,346 grove acres located in 20 different sections across the state.**
- ✓**Grove blocks currently range in size from 16 to 106 acres; however, the majority of blocks fall into the 20- to 40-acre range.**

As the Share Program continues to grow, it is important to select test blocks from production areas of each citrus-producing county so that each township (T-R) is represented uniformly throughout the state. Growers interested in participating in the Share Program may apply and be accepted only as the Division's resources permit. Every effort will be made to accomodate interested growers. For more information, contact your local CHRP office.

Summary of FY 7/1/08 - 6/30/09 Activities through May 2009

Activity	March	April	May	FY Total*
Multi-pest survey (MPS) #4 Multi-pest survey (MPS) #5	4,290 acres	4,061 acres	2,905 acres 523 acres	**65,448 acres** **523 acres**
Fresh fruit survey	2,204 acres	277 acres	0 acres	**37,694 acres**
Grower requested survey	1,520 acres	2,302 acres	1,355 acres	**18,405 acres**
Nursery environs survey				
- commercial	474 acres	1,706 acres	1,251 acres	**7,949 acres**
- residential	486	154	46	**4,734 properties**
Fresh fruit applications	2	10	2	**458****
Harvesting permits issued	199	21	0	**4,387**

* Numbers have been revised to reflect updated information

**Total includes 46 fresh fruit applications received in June 2008

Selected CHRP-Related Methods Development and Biological Control Projects

More detailed information can be found at www.fl-dpi.com/chrp

Project Name	Description
Mass Rearing *Diaprepes abbreviatus* Sugar cane rootstock borer weevil	*Diaprepes abbreviatus* is a serious pest of over 400 different hosts, including citrus. DPI began a rearing program in 2000 to provide enough material to conduct control research. DPI supplies specimens to 8-10 scientists working on parasitoid, nematode and chemical control, all requiring various life stages.
Mass Rearing of Parasites of Citrus Leafminer	The purpose of this project is to establish *Citrostichus phyllocnistoides* in Florida citrus groves for improving biological control of citrus leafminer to reduce the loss and risk due to citrus canker. *C. phyllocnistoides* is a parasite of citrus leafminer imported from Spain in 2003 - a permit for field release was granted by USDA in 2006. This parasite is reared at DPI and sent to UF/IFAS for field release in Immokalee.
Rearing and Release of Parasites of Asian Citrus Psyllid (ACP)	DPI is rearing two parasites of ACP, *Tamarixia radiata* and *Diaphorencyrtus aligarhensis* for field release in Florida. *T. radiata is* one of the most effective parasites of ACP in Asia. In cooperation with UF/IFAS, we are searching for other bio-types of these parasites in southern China and NorthVietnam. There are also plans to mass rear parasites in cooperation with industry.
Mass Rearing of Parasites of the Brown Citrus Aphid and Citrus Blackfly	Since 2000, the parasite, *Lipolexus scutellaris* has been reared for field release to control brown citrus aphis and other aphids. A colony of citrus blackfly and its parasites have been collected from the field and established in the laboratory since 2008.
Mass Rearing of Parasites of *Diaprepes abbreviatus*	Mass rearing and field release of the parasite *Quadrastichus haitiensis* was started by DPI in 1999 and has continued for field release to complement the IPM program to control *D. abbreviatus*. At present about 1.6 million parasites per year are reared in Gainesville and sent to at least 25 citrus groves in Central Florida.
Host Phenology Study of Caribbean Fruit Fly	A study was begun in 2003 to determine if there are any unknown hosts of the Caribbean Fruit Fly in citrus growing areas of Central Florida. No new hosts for the Caribbean Fruit Fly have been discovered. However, the study has led to other discoveries including discovery of insects new to science, North America and Florida.
Soil Drench Alternative Study for Diazinon	This is an ongoing research project to find a chemical replacement for Diazinon AG500, which is used under a Section 18 or Emergency Exemption as a soil drench to treat exotic fruit fly pupae in emergency eradication programs.
Symptomatic Fruit Study	Study designed to show that symptomatic fruit poses no appreciable risk to the spread of canker to disease-free citrus production areas thus allowing for the shipment of fresh Florida citrus to domestic and world markets.
Develop Efficient Trap for Asian Citrus Psyllid	Purpose is to develop a more efficient trap for Asian citrus psyllid that can be used in groves, nurseries and retail stores to monitor ACP populations.
Incidence of *Candidatus* Liberibacter Using Real-Time PCR	Purpose is to evaluate seasonal incidence of citrus greening in plants and psyllids, and to evaluate various novel management strategies. This project partially funds collection and testing of psyllids at intervals throughout the season for presence or absence of citrus greening bacteria.
HLB - Evaluation of Systemic Acquired Resistance (SAR) Inducers	On-going research on the efficacy of SAR products for management of citrus greening disease in heavily infected citrus groves near Immokalee.
Measuring Flight Activity of the Asian Citrus Psyllid	Completed 2009. Used suction traps to collect psyllids in citrus groves in Immokalee, Winter Haven and Loxahatchee. Psyllids are being tested in Riverside, CA for presence of citrus greening pathogens. Preliminary analysis indicates that psyllids are more likely to be positive for greening bacteria in spring and fall.
Assessment of *Zanthoxylum fagara* - a Natural Host of HLB	Testing a native citrus relative, *Zanthoxylum fagara*, and its host-specific psyllid, *Leuronota fagarae*, for citrus greening pathogens. Research will determine whether *Z. fagara* is resistant to citrus greening, and whether the pathogen complex can be acquired and transmitted in a different plant/psyllid ecosystem.