

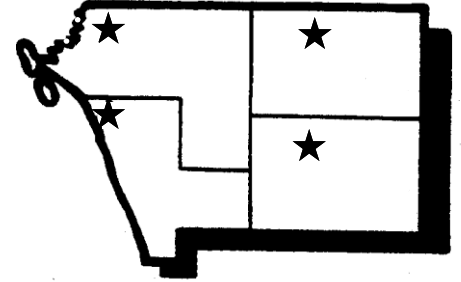
## West Central Citrus Letter

DeSoto Extension Service  
2150 NE Roan Street • Arcadia FL 34266  
863/993-4846

Manatee Extension Service  
1303 17th Street West • Palmetto FL 34221  
941/722-4524

Hardee Extension Service  
507 Civic Center Drive • Wauchula FL 33873  
863/773-2164

Sarasota Extension Service  
6700 Clark Road • Sarasota FL 34241  
941/861-9900



**January 2, 2012**

### **Citrus Production School, Jan. 24, 31, Feb. 7, 2012**

The annual citrus production school will be held at the Turner Exhibition Hall in Arcadia on 3 consecutive Tuesday evenings (7 PM - 9 PM) beginning on January 24<sup>th</sup>.

Topics discussed will include various presentations related to HLB, rejuvenation of HLB infected trees, psyllid management, canker suppression, phytophthora control, herbicide stewardship and understanding genetically modified disease resistance in citrus.

The school will offer continuing education units (CEUs) in the private and ag tree crop areas for those that attend and have a valid restricted use pesticide license. Certified crop advisor CEUs will also be offered.

Advanced registration is requested prior to January 18<sup>th</sup>. Registration fee is \$25 per person and should be mailed to the Hardee County Extension Service office in Wauchula. Please see the enclosed registration form to register for the annual citrus production school.

### **Restricted Use Pesticide License Review and Testing, Jan. 17, 2012**

A three-hour pesticide license review and testing class will be held on Tuesday, Jan. 17, 2012 at the Hardee County Extension Service Office at 507 Civic Center Drive in Wauchula. The class will review the materials contained in the tests to obtain a private

applicator pesticide license. The class will begin at 9:00 A.M. and conclude at noon with the test being given at 1:00 P.M. Three CEUs (2 Core and 1 Private) will be offered to individuals that have a current pesticide license and will be renewing using CEUs. A registration fee of \$38.00 per person is charged to cover the study manuals and refreshments. To attend the class for only CEUs, the registration fee is \$5.00. If you wish to attend the class to obtain CEUs or to take the test, please call the Hardee County Extension Service Office at 863-773-2164 to register. Pre-registration is requested prior to Jan. 11, 2012.

### **Worker Protection Standards, Train-the-Trainer Training, Jan. 31, 2012**

A training session will be conducted from 3:30 PM until 4:30 PM at the Extension Service Office in Arcadia on Tuesday, Jan. 31, 2012. The session will cover the worker protection standards (WPS) information required under the rule to train employees as a pesticide handler or workers.

Please remember that all pesticide handlers must be trained prior to handling tasks. Employees that are classified as workers must be trained within five days of working in areas that have had pesticides applied within the last 30 days. All employees must be retrained every five years.

One continuing education unit (CEU) will be offered to individuals with restricted use pesticide

licenses. CEUs in the private, ag tree, row crop and ornamental and turf categories are offered for this WPS training class for those with a restricted use pesticide license.

To register for the class, please call the Extension Service Office in Arcadia at 863-993-4846 prior to Jan. 25, 2012. A registration fee of \$5.00 per person is required.

### **Florida Citrus Show, Jan. 25-26, 2012**

The annual Florida Citrus Show will be held January 25-26 at the Havert L. Fenn Center in Ft. Pierce. The program will include updates on insect, weed and disease control strategies, fertilization, irrigation and food safety. The seminar also features indoor and outdoor exhibits with industry suppliers. For more information on the show, please visit the show's website at: <http://citrusshow.com/>.

While the show is free to attend, pre-registration is requested. To register, please visit above website for the citrus show.

### **Aquatic Short Course, May 7-10, 2012**

The 2012 Aquatic Weed Control Short Course will be held May 7-10 in Coral Springs. Participants can earn up to 20 CEUs and fully re-certify in Florida for aquatics, natural areas, or right-of-way. The short course is designed to benefit those new to the industry and experienced professionals seeking a comprehensive update.

Early reduced registration fee by Feb. 24<sup>th</sup> is \$240 and increases to \$290 by April 9<sup>th</sup> and a late registration fee of \$340 after April 9<sup>th</sup>.

For more information on the short course, please visit their website at:

<http://conference.ifas.ufl.edu/aw/index.html>

### **ADVANCED CITRICULTURE II - HOS 6546**

The college course on citriculture will be offered beginning January 10<sup>th</sup> at the Citrus Research and Education Center and at UF Distance Education locations in citrus production areas. The course, on regulation of reproductive growth of citrus, will be offered on Tuesdays from 3-6 PM starting January 10<sup>th</sup> and conclude near the end of April. The in-person site will be CREC in Lake Alfred or students can participate in class by interactive Internet Video-Audio Conferencing. Students will review literature on climatic, physiological, production practices and other factors as they influence reproductive

development of citrus. Student will read assigned literature, prepare short reports on several papers and then participate in a lecture-discussion session on the assigned topic each week.

This is a 3 unit course that will cost \$1494.27 for in-state students. This course is available in Continuing Education for credit or audit or as regular Graduate School offerings. Interested students should have taken basic plant physiology, citrus production courses or have several years of citrus production experience. Please contact Dr. L. Gene Albrigo (863) 956-1151 or [albrigo@ufl.edu](mailto:albrigo@ufl.edu) for further information and procedures for class enrollment.

### **Flower Bud Advisory**

The Flower Bud Advisory Report is developed and reported by Dr. Gene Albrigo and posted on the CREC website (<http://crec.ifas.ufl.edu/>). The internet Expert System on intensity and time of bloom can be accessed anytime: <http://orb.at.ufl.edu/DISC/bloom>

**Current Status:** Not good: The Flowering Monitor Systems indicate that trees in all areas, except the southern-most growing region, had their first wave of flower buds start growth after the first week of December with accumulated hours below 68°F at low induction levels from 630 to 750 hours. I hope you had your blocks under moderate water stress to prevent this early start of growth. The continuous daily highs of about 80°F were sufficient to start growth. There are another 5 days of these temperatures predicted and the flower buds on trees in southern areas probably will be growing also if not prevented by drought. If bud growth on trees has been prevented, accumulated hours of flower bud induction are now above 700 in all areas except the Indian River, which is below 500. From Polk County north, accumulated induction hours were above 700 for the first wave of flower bud growth, minimally acceptable for economic flowering levels.

Since warm temperatures will continue for five more days, flower enhancing sprays will probably be beneficial, particularly for southern areas and if drought stress was not established. Growers can consider applying either 53 to 60 lbs of foliar urea/acre or a PO<sub>3</sub> product at 3 pints to 2 quarts per acre depending on which product is used (60% P (3 pts) or if 26% P (2 qts)). The chosen material

should be applied in 80 to 125 gal of water preferably before Christmas. These products apparently increase the stress level and enhance the amount of flowering induced by the cool temperatures.

If you have successfully established drought stress, trees should still be at rest and the weather until New Year's Day should be followed closely. After another 4 or 5 days of 80°F, the temperatures are predicted to drop to the low 70s. As long as daytime highs stay near 70, the chance of tree growth should be minimal. If you get to the New Year without growth, flower bud induction levels should be adequate and normal irrigation can be resumed.

The next advisory will be the first week of January.

If you have any questions, please contact Dr. Gene Albrigo at [albrigo@ufl.edu](mailto:albrigo@ufl.edu).

### New and Revised Citrus Publication

The publication titled "Identification of Mites, Insects, Diseases, Nutritional Symptoms and Disorders on Citrus, SP 176" has been revised and a Spanish version is also now available. The publication highlights numerous citrus pests and diseases that are frequently found in citrus. The publication is available for \$12 and can be ordered online at <http://ifasbooks.ifas.ufl.edu/> or by calling 1-800-226-1764. Shipping and handling fees will also be added to the purchase price.

### Using Citrus Leaf Freezing Information to Determine Critical Temperature

With the onset of cooler temperatures, citrus trees cease active growth and become quiescent. This continued quiescence at lower temperatures results in a subsequent increase in cold hardiness termed acclimation. Citrus trees proceed through many changes during acclimation. These changes include: increases in sugars and amino acids with decreases in starch levels within plant tissues. Tissue moisture decreases along with increases in the stability and binding of cell water. These factors combine to increase the ability of citrus tissues to withstand the formation and presence of ice.

Citrus trees acclimated to cold temperatures have survived temperatures as low as 14°F. Acclimation is affected by exposure temperatures, scion cultivar, rootstock cultivar, rootstock/scion combination, tree

nutritional status, crop load and water stress. Acclimation is dynamic and will change during the winter in response to warming exposure temperatures with a possible resumption of growth.

Leaf killing points vary in magnitude in response to the above conditions, although the predominate factor, would be exposure temperatures. Studies of citrus leaf killing point temperatures clearly indicate that citrus trees grown in more northern growing areas acquire greater acclimation than trees grown in growing regions further south. Trees grown in southern regions of the state are also more susceptible to active growth due to favorable growing conditions during the winter.

Non-acclimated citrus leaves will generally survive to temperatures of 24°F. New spring flush leaves formed in April will rarely survive temperatures of 31°F; by mid May these leaves will have similar leaf killing points to mature leaves. Research studies indicated that citrus leaf killing points can range from 16°F to 24°F during the winter with a Satsuma cultivar reaching 14°F during one year. Field observations indicated that these leaf killing point values hold up in a number of freezes.

### Citrus Leaf Killing Temperatures for Florida Citrus

Location	Variety/ Rootstock	2011		
		11/28	12/05	12/12
Balm	Hamlin/ Swingle	25	25	24
Ft. Meade	Valencia/ Carrizo	24	24	24
Frostproof	Hamlin/ Swingle	24	24	24
Green Swamp	Hamlin/ Swingle	24	22	23
CREC		23	21	24
Conserv A	Hamlin	24	22	22
Conserv B	Valencia	22	23	20
Umatilla		21	24	23

Source: Chris Oswalt and FAWN

[http://fawn.ifas.ufl.edu/tools/coldp/crit\\_temp\\_select\\_guide\\_citrus.php](http://fawn.ifas.ufl.edu/tools/coldp/crit_temp_select_guide_citrus.php)

### Citrus Psyllid Reporting

Citrus psyllid count data is available for each of the active citrus health management areas (CHMAs) within Florida. The data can be accessed by going to any of the active CHMAs at [http://www.crec.ifas.ufl.edu/extension/chmas/chma\\_websites.shtml](http://www.crec.ifas.ufl.edu/extension/chmas/chma_websites.shtml). Once at the selected CHMA, then go to near the bottom of the screen and you will find 'psyllid scouting reports'. Then click on the 'psyllid scouting reports' hyperlink and it will take you to the page that provides information for specific blocks that are surveyed. Once selected, it will give you the option to view psyllid monitoring status, spreadsheets or reports on specific block reports as well as the latest maps for the selected CHMA. The maps will indicate an increase, decrease or no change in the psyllid numbers for each survey block. The blocks are surveyed every 3 weeks and then the data is uploaded to reflect collected data.

### International Symposium on Mechanical Harvesting & Handling Systems of Fruits and Nuts, April 2-4, 2012

This event is being hosted by the UF/IFAS Citrus Mechanical Harvesting & Abscission Program at the UF/IFAS Citrus Research & Education Center, in Lake Alfred, FL. This is two-day symposium, with an optional tour on the third day of mechanical harvesting of citrus and other crops in central and southwest Florida. The symposium welcomes scientists, growers, harvesters, handlers, processors and others interested in the practices and concerns of mechanical harvesting of fruits and nut crops. Speakers are active in academia and industry representing an array of the various fruit and nut crops. The mechanically harvested crops discussed will include olives, cherries, grapes, raspberries, blueberries, citrus, coffee, nuts and others.

The two-day symposium will include topics of interest on harvesting systems, abscission aids, harvesting aids, robotic harvesting, automation, and new machine designs. Many different facets of mechanical harvesting will be featured including economics, plant health, crop gleaning, transport and handling that affect the U.S. and International fruit and nut markets.

The optional field trip, on day three, will take the participants to central and southwest Florida (Immokalee) and will include mechanical harvesting in a commercial citrus grove. The symposium Abstracts and Proceedings will be published through the International Society for Horticultural Science (ISHS).

For more information on the symposium, please visit <http://www.crec.ifas.ufl.edu/societies/harvest/index.shtml>

### Upcoming Events:

- Jan. 17 Restricted Use Pesticide License Review and Testing, Wauchula
- Jan. 24, 31, Feb. 7 Citrus Production School, Arcadia
- Jan. 25-26 Florida Citrus Show, Ft. Pierce
- Jan. 31 Train-the-Trainer, Arcadia

Wishing you a prosperous and happy new year,

Sincerely,

*Stephen H. Futch*

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Enc.: Citrus Production School program flyer