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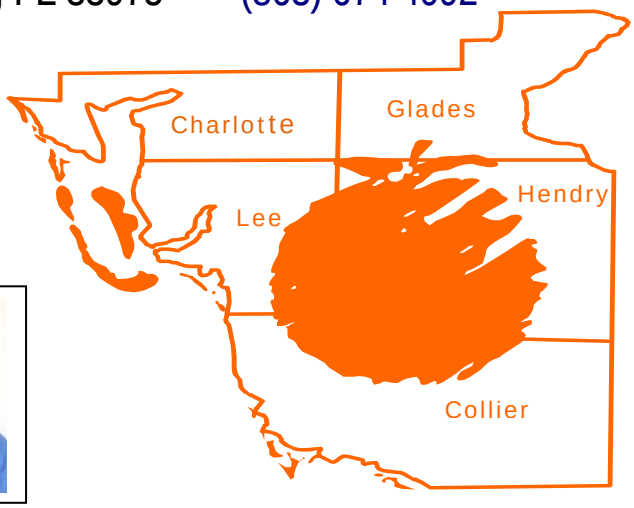
Flatwoods Citrus



Vol. 13, No. 8 **August 2010**

Dr. Mongi Zekri
Multi-County Citrus Agent, SW Florida

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Previous issues of the Flatwoods Citrus newsletter can be found at:
http://irrec.ifas.ufl.edu/flcitrus/
http://citrusagents.ifas.ufl.edu/agents/zekri/index.htm

IMPORTANT EVENTS & NEWS

CITRUS EXPO

IN FORT MYERS

Wednesday, August 18 &
Thursday, August 19, 2010

www.CitrusExpo.net

Packinghouse Day **(Aug. 26)** at the Citrus Research and Education Center in Lake Alfred

The Indian River Postharvest Workshop **(Aug. 27)** at the Indian River Research and Education Center in Fort Pierce

Citrus Black Spot will be a major focus on the program (see the flyer).

PSYLLID, GREENING, AND BLACK SPOT MANAGEMENT

Date: Thursday, October 7, 2010, Time: 8:30 AM-12:00 Noon
Location: Immokalee IFAS Center

Program Sponsors: John Taylor & Cody Hoffman, Syngenta Crop Protection
2 CEUs for Pesticide License Renewal, 2 CEUs for Certified Crop Advisors (CCAs)
No registration fee and lunch is free, but **RSVP is required** for planning purposes.
Please send an e-mail to maz@ufl.edu or call 863 674 4092.

2010 Florida Ag Expo

November 10, 2010 in Balm, Florida

For more information go to:
www.FloridaAgExpo.com

FLORIDA AG EXPO
University of Florida/ IFAS Gulf Coast Research & Education Center
Balm, Florida • November 10, 2010

THE CITRUS BLACK SPOT WEBPAGE is available on the CREC website (www.crec.ifas.ufl.edu). It is located underneath the extension section or you may visit it directly at:

http://www.crec.ifas.ufl.edu/extension/black_spot/citrus_black_spot.htm

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International Research Conference on Huanglongbing (HLB)

January 10-14, 2011, Orlando

Registration starts on Sept. 1, 2010; Registration fee: $350.

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DuPont Ag. Products

5100 S. Cleveland Ave.,
Suite 318-368
Fort Myers, FL 33907
Phone: 239 994 8594
Edward.L.Early@USA.dupont.com

Cody Hoffman

SYNGENTA

1505 Paloma Dr., Fort Myers, FL 33901
Mobile: 321 436 2591
Fax: 239 479 6279
cody.hoffman@syngenta.com

Douglas Brown
AMERICAN AG PRODUCTS CORPORATION
Mobile: 239 633 7655
Fax: 239 693 6654
americanagproducts@earthlink.net

Donald Allen
AGLIME SALES, INC.
1375 Thornburg Road
Babson Park, FL 33827-9549
Mobile: 863 287 2925
Agnet # 52925

Nufarm Agriculture USA
Craig Noll
Office-239 549 2494
Mobile-239 691 8060
craig.noll@us.nufarm.com
Gary Simmons
Phone: 772 260 1058

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Jay Hallaron
Phone: 407 256 4667
Fax: 407 523 1097
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Jeff Summersill
THOMAS R. SUMMERSILL, INC.
Custom Aerial
Ground Application
Mobile 561-722-4502, Agnet # 33169
trsummersill@msn.com

Stacey Howell
***BAYER* CropScience**
239-272-8575 (mobile)
239-353-6491 (office/fax)

stacey.howell@bayercropscience.com

Garry Gibson
BASF Corporation
1502 53rd Avenue
Vero Beach, FL 32966
Cell: 772 473 1726
Fax: 772 567 2644
w.garry.gibson@basf.com

Aquatic Weeds in Flatwoods Citrus Groves

Aquatic plants are necessary for maintaining the balance of nature and offering food, protection, oxygen, and shelter to aquatic species. However, one reality of growing citrus in Florida flatwoods areas is that nearly every citrus grower will sooner or later experience aquatic weed problems. Aquatic vegetation in ditches and canals not only reduce the cross-sectional area of the channel, but also reduce the velocity of water flow. As a result, aquatic vegetation in waterways may dramatically increase the time required to drain a specific storm compared to clean ditches that allow free-flow of runoff water.

Biological Controls

1. Insects and Diseases

Some exotic plant species have been controlled by introduction of biological control agents. The alligator weed flea beetle was introduced into the United States from South America in 1964. This beetle has done a remarkable job of reducing the problems with alligator weed. In fact, alligator weed is not considered a major aquatic problem in most areas of the state. Various biological control agents have been tested on water hyacinths throughout the years. Of these predator introductions, the most effective have been two types of water hyacinth weevil and the water hyacinth mite. In addition, the fungus, *Cercospona rodmanii*, has been imported and found to have some effect on the water hyacinth.

2. Triploid Grass Carp

Triploid grass carp feed upon aquatic vegetation. Triploid grass carp are non-native fish with 3 sets of chromosomes, rather than the normal 2 sets, making them essentially sterile. Their introduction into water bodies requires permitting from the Florida Fish and Wildlife Conservation Commission in Tallahassee. Usually, the permitting requires a fish barrier retention structure on outfall structures to contain the grass carp. Grass carp are generally appropriate for control of submerged aquatic species such as hydrilla, elodea, and certain types of algae. Biological control measures with herbivorous fish are long-term measures that must have aquatic weed hosts available at all times. Herbivorous fish are not quick-source eradicants of a massive weed problem. Most fish are host selective in nature, and prefer to feed on only a few weed species. Therefore, under a biological control program using grass carp, some groups of plants may seem to proliferate.

Chemical Control

The objective of an aquatic herbicide program is to control aquatic weeds within grove drainage ditches. In the past, citrus growers have relied extensively on chemical control for effective reduction of invasive weed species in and along waterways. Chemical control of aquatic weed species is normally accomplished using various types of herbicides.

Aquatic Herbicides

There are several herbicides that can be used for aquatic weed control. Each material has advantages and disadvantages. The selection of the most appropriate material should be based on the target species, alternate control measures, and the effects on other aquatic organisms. Copper Products, 2,4-D Products, Diquat, Diuron, Endothall, Fluridone, Glyphosate, Imazapyr, and Triclopyr are among the commonly used aquatic herbicides. Their mode of action, target species, application rates, and treatment strategies can be found at: http://edis.ifas.ufl.edu/CH096 For more details on aquatic weed management, go to Aquatic Weed Management in Citrus Canals and Ditches at: http://edis.ifas.ufl.edu/ch181

BROWN ROT

Management of brown rot, caused by *Phytophthora nicotianae* or *P. palmivora*, is needed on both processing and fresh market fruit. While the disease can affect all citrus types, it is usually most severe on Hamlin and other early maturing sweet orange cultivars.

Phytophthora brown rot is a localized problem usually associated with restricted air and/or water drainage. It commonly appears from mid-August through October following periods of extended high rainfall. It can be confused with fruit drop due to other causes at that time of the year. If caused by *P. nicotianae*, brown rot is limited to the lower third of the canopy because the fungus is splashed onto fruit from the soil. *P. palmivora* produces airborne sporangia and can affect fruit throughout the canopy.

Early season inoculum production and spread of *Phytophthora* spp. are minimized with key modifications in cultural practices. Skirting of the trees reduces the opportunity for soil-borne inoculum to contact fruit in the canopy. The edge of the herbicide strip should be maintained just inside of the dripline of the tree to minimize the exposure of bare soil to direct impact by rain. This will limit rain splash of soil onto the lower canopy. Boom application of herbicides and other operations dislodge low-hanging fruit. Fruit on the ground becomes infected and produces inoculum of *P. palmivora* that can result in brown rot infection in the canopy as early as July while fruit are still green. The beginning stages of the epidemic are very difficult to detect before the fruit are colored and showing typical symptoms. Application of residual herbicides earlier in the summer may reduce the need for post-emergence materials later and minimize fruit drop throughout this early stage of inoculum production from fallen fruit.

Usually a single application of Aliette, Phostrol or ProPhyt before the first signs of brown rot appear in late July is sufficient to protect fruit through most of the normal infection period. No more than 20 lb/acre/year of Aliette should be applied for the control of all Phytophthora diseases. Aliette, Phostrol and ProPhyt are systemic fungicides that protect against postharvest infection and provide 60-90 days control. Copper fungicides are primarily protective but are capable of killing sporangia on the fruit surface and thus reducing inoculum. They may be applied in August before or after brown rot appearance and provide protection for 45-60 days. If the rainy season is prolonged into the fall, a follow-up application of either systemic fungicides at one-half of the label rate, or copper in October may be warranted. With average quality copper products, usually 2-4 lb of metallic copper per acre are needed for control.

Precautions should be taken during harvesting not to include brown rot-affected fruit in the field containers as this could result in rejection at the processing or packing facility.

Recommended Chemical Controls for Brown Rot of Fruit

Pesticide	**FRAC MOA[2]**	**Mature Trees Rate/Acre[1]**
Aliette WDG	13	5 lb
Phostrol	13	4.5 pints
ProPhyt	13	4 pints
copper fungicide	M9	Use label rate.

[1]Lower rates may be used on smaller trees. Do not use less than minimum label rate.
[2]Mode of action class for citrus pesticides from the Fungicide Resistance Action Committee (FRAC) 2003. Refer to ENY624, Pesticide Resistance and Resistance Management, in the 2009 Florida Citrus Pest Management Guide for more details.

Rates for pesticides are given as the maximum amount required to treat mature citrus trees unless otherwise noted. To treat smaller trees with commercial application equipment, mix the per acre rate for mature trees in 250 gallons of water. Calibrate and arrange nozzles to deliver thorough distribution and treat as many acres as this volume of spray allows.

OTHER PHYTOPHTHORA FUNGAL DISEASES

Foot rot results from infection of the scion near the ground level, producing bark lesions, which extend down to the budunion on resistant rootstocks.

Crown rot results from infection of the bark below the soil line when susceptible rootstocks are used. Root rot occurs when the cortex of fibrous roots is infected, turns soft and appears water-soaked. Fibrous roots slough their cortex leaving only white thread-like stele.

When managing Phytophthora-induced diseases, consider integration of cultural practices (e.g., disease exclusion through use of Phytophthora-free planting stock, resistant rootstocks, proper irrigation practices) and chemical control methods.

Cultural practices. Field locations not previously planted with citrus are free of citrus-specific *P. nicotianae*. Planting stock should be tested free of Phytophthora in the nursery and inspected for fibrous root rot in the nursery or grove before planting. In groves with a previous history of foot rot, consider use of Swingle citrumelo for replanting. Swingle citrumelo is resistant to foot rot and roots do not support damaging populations once trees are established.

Cleopatra mandarin should be avoided because it is prone to develop foot rot when roots are infected in the nursery or when trees are planted in flatwoods situations with high or fluctuating water tables and fine-textured soils. Trees should be planted with the budunion well-above the soil line and provided with adequate soil drainage. Overwatering, especially of young trees, promotes buildup of populations in the soil and increases risk of foot rot infection. Prolonged wetting of the trunk, especially if tree wraps are used on young trees, should be avoided by using early to midday irrigation schedules. Control of fire ants prevents their nesting under wraps and causing damage to tender bark.

Sampling for *P. nicotianae*. Population densities of the fungus in grove soils should be determined to assist in decisions to treat with fungicides. Soil samples containing fibrous roots should be collected during the spring through fall (March to November) from under-canopy within the tree dripline. Individual small amounts of soil from 20 to 40 locations within a 10-acre area are composited into one resealable plastic bag to retain soil moisture. Samples must be kept cool but not refrigerated for transport to the

analytical laboratory. Currently, populations in excess of 10 to 15 propagules per cm^3 soil are considered damaging. The same soil sample could be tested for populations of nematodes, to assess whether they occur at damaging levels.

Chemical control.

Use of fungicides in young groves should be based on rootstock susceptibility, likelihood of Phytophthora infestation in the nursery, and history of Phytophthora disease problems in the grove. For susceptible rootstocks, such as Cleopatra mandarin and sweet orange, fungicides may be applied to young trees on a preventive basis for foot rot. For other rootstocks, fungicide treatments should commence when foot rot lesions develop. The fungicide program for foot rot should be continued for at least one year for tolerant rootstocks, but may continue beyond for susceptible stocks.

In mature groves, the decision to apply fungicides for root rot control is based on yearly soil sampling to indicate whether damaging populations of *P. nicotianae* occur in successive growing seasons. Time applications to coincide with periods of susceptible root flushes in late spring and late summer or early fall.

Soil application methods with fungicides should be targeted to under canopy areas of highest fibrous root density. To avoid leaching from the root zone, soil-applied fungicides should not be followed by excessive irrigation. Aliette and Ridomil are both effective, but alternation of the materials should be practiced to minimize the risk of the development of fungicide resistance.

Foliar spray with Aliette: It is recommended to buffer the spray solution to pH 6 or higher to avoid phytotoxicity when copper has been used prior to or with Aliette. For nonbearing trees, use 5lb/100 gal. For bearing trees, use 5 lb in 100-150 gal/acre. Soil application with Ridomil Gold 4EC: Apply 1quart/treated acre or soil drench by applying 5 gallons of solution (1 quart/100 gal) in water ring.

For more details and product selection and rates, get your copy of the 2010 Florida Citrus Pest Management Guide or go to: http://edis.ifas.ufl.edu/CG009

Some Chemicals for Phytophthora Foot Rot and Root Rot

Pesticide	Mature Trees Rate/Acre	Method of Application	Comments
Aliette WDG Bearing	5 lb/acre or 1 lb/100 gal	Foliar spray in 100-250 gal/acre. Do not exceed 500 gal/acre.	Apply up to 4 times/year (March, May, July and Sept.) for fibrous root rot control.
Phostrol			Protectant and curative systemic.
Bearing or Nonbearing	4.5 pt/acre	Foliar spray	Apply up to 4 times/year (March, May, July and Sept.).
Bearing or Nonbearing	2-5 pt/5 gal	Trunk paint or spray	Trunk paint or spray
ProPhyt			Protectant and curative systemic.
Nonbearing	2 gal/100 gal	drench	1/2 pt solution per seedling in 2 gallon pot; can be applied through microsprinkler
Bearing	4 pt/acre	Foliar spray	Apply up to 4 times/year (March, May, July and Sept.) for fibrous root rot control.
Ridomil Gold SL Bearing	1 pt/acre of treated soil surface if <20 propagules/cm^3 soil 1 qt/acre of treated soil surface if >20 propagules/cm^3 soil	Surface spray on weed-free area, Followed immediately by 0.5 inch irrigation or microsprinkler in 0.1-0.3 inch of water.	Protectant and curative systemic. Apply 3 times/year (late spring, summer, early fall).
Bearing or Nonbearing	1 qt/10 gal	Trunk paint or spray	May be applied up to 3 times/yr.
UltraFlourish Bearing	1 qt/acre of treated soil surface <20 propagules/cm^3 soil, 2 qt/grove acre >20 propagules/cm^3 soil	Surface spray on weed-free area, followed immediately by 0.5 inch irrigation or microsprinkler in 0.1-0.3 inch of water.	Protectant and curative systemic. Apply 3 times/year (late spring, summer, early fall).
Copper-Wettable Powder	0.5 lb (metallic) Cu/1 gal water	Trunk paint	Protectant
Copper-Count-N	1 qt in 3 qt water	Trunk paint	Protectant. Do not apply to green bark; may cause gumming.

For more details and more product selections and rates, get your copy of the 2010 Florida Citrus Pest Management Guide or go to: http://edis.ifas.ufl.edu/CG009

IMPORTANCE OF FERTILIZERS-LET US TALK ABOUT MANGANESE (Mn)

Manganese is involved in the production of amino acids and proteins. It plays a role in photosynthesis and in the formation of chlorophyll.

Manganese deficiency occurs commonly in Florida. It is particularly evident in the spring after a cold winter. Manganese deficiency leads to a chlorosis in the interveinal tissue of leaves but the veins remain dark green. Young leaves commonly show a fine pattern or network of green veins on a lighter green background but the pattern is not as distinct as in Zn or Fe deficiencies because the leaf is greener. By the time the leaves reach full size, the pattern becomes more distinct as a band of green along the midrib and principal lateral veins with light green areas between the veins.

In more severe cases, the color of the leaf becomes dull-green. Interveinal leaf areas may develop many whitish opaque spots which give the leaf a whitish or gray appearance. The leaves are not reduced in size or changed in shape by Mn deficiency, but affected leaves prematurely fall from the tree. No particular twig symptoms have been related to Mn deficiency. In cases of acute Mn deficiency, the growth is reduced giving the tree a weak appearance.

Manganese deficiency may greatly reduce the crop and the color of the fruit. Manganese deficiency is frequently associated with Zn deficiency. This combination of the two deficiency symptoms on leaves is characterized by dark green veins with dull whitish green areas between the veins. In such combinations, the Mn deficiency is acute and the Zn deficiency is relatively mild.

In Florida, Mn deficiency occurs on both acid and alkaline soils. It is probably due to leaching in the acid soils and to insolubility in the alkaline soils. For deficient trees on alkaline soils, treatments by sprays of Mn compounds are recommended. On acid soils, Mn can be included in the fertilizer. Foliar spray application quickly clears up the pattern on young leaves but older leaves respond less rapidly and less completely. When Mn sprays are given to Mn-deficient orange trees, fruit yield, total soluble solids in the juice and pounds solids per box of fruit increase. Foliar spray of a solution containing 2 to 3 lbs of elemental Mn on two-third to fully expanded spring- and/or summer-flush leaves is recommended. If N is needed, adding 7 to 10 lbs of low biuret urea will increase Mn uptake.

United States Department of Agriculture
National Agricultural Statistics Service

CITRUS JULY FORECAST FORECAST COMPONENTS

Cooperating with the Florida Department of Agriculture & Consumer Services
2290 Lucien Way, Suite 300, Maitland, FL 32751
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July 9, 2010

All Oranges Unchanged at 133.6 Million Boxes

The Florida all orange forecast released today by the USDA Agricultural Statistics Board is unchanged at 133.6 million boxes. The Valencia forecast remains at 65.0 million boxes and the non-Valencia portion (early, midseason, Navel, and Temple varieties) is 68.6 million boxes. If realized, this forecast would be 18 percent less than last season's production of 162.5 million boxes.

The first forecast of the 2010-2011 season will be released at 8:30 a.m. on October 8, 2010

Citrus Production by Type and State — United States: 2006-2007, 2007-2008, 2008-2009, Forecasted June 1, 2010 and July 1, 2010

Crop and State	Production			2009-2010 Forecast	
	2006-2007	2007-2008	2008-2009	June	July
	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)
Non-Valencia Oranges [1]					
Florida	**65,600**	**83,500**	**84,600**	**68,600**	**68,600**
California	34,500	45,000	34,500	42,000	42,000
Texas	1,600	1,600	1,300	1,350	1,360
Arizona [2]	200	230	150		
United States	101,900	130,330	120,550	111,950	111,960
Valencia Oranges					
Florida	**63,400**	**86,700**	**77,900**	**65,000**	**65,000**
California	11,500	17,000	12,000	17,000	16,000
Texas	380	196	159	250	275
Arizona [2]	100	150	100		
United States	75,380	104,046	90,159	82,250	81,275
All Oranges					
Florida	**129,000**	**170,200**	**162,500**	**133,600**	**133,600**
California	46,000	62,000	46,500	59,000	58,000
Texas	1,980	1,796	1,459	1,600	1,635
Arizona [2]	300	380	250		
United States	177,280	234,376	210,709	194,200	193,235
Grapefruit					
Florida-All	**27,200**	**26,600**	**21,700**	**20,200**	**20,300**
White	**9,300**	**9,000**	**6,600**	**6,000**	**6,000**
Colored	**17,900**	**17,600**	**15,100**	**14,200**	**14,300**
California	5,500	5,200	4,800	4,200	4,200
Texas	7,100	6,000	5,500	5,500	5,500
Arizona [2]	100	100	25		
United States	39,900	37,900	32,025	29,900	30,000
Lemons					
California	18,500	14,800	21,000	20,000	20,000
Arizona	2,500	1,500	3,000	2,500	2,500
United States	21,000	16,300	24,000	22,500	22,500
Tangelos					
Florida	**1,250**	**1,500**	**1,150**	**900**	**900**
Tangerines					
Florida-All	**4,600**	**5,500**	**3,850**	**4,500**	**4,500**
Early [3]	**2,400**	**2,600**	**2,550**	**2,300**	**2,300**
Honey	**2,200**	**2,900**	**1,300**	**2,200**	**2,200**
California [4]	3,500	6,700	6,700	9,100	9,900
Arizona [4]	300	400	250	450	450
United States	8,400	12,600	10,800	14,050	14,850

[1] Early, midseason, Navel, and Temple varieties.
[2] Estimates discontinued beginning with the 2009-2010 crop year.
[3] Fallglo and Sunburst varieties.
[4] Includes tangelos and tangors.

Other Citrus

The Florida all **grapefruit** forecast is increased to 20.3 million boxes, up 100,000 boxes from last month. The increase is in the **colored** varieties now forecast at 14.3 million boxes. The **white** grapefruit remains at 6.0 million boxes. **Tangerine** utilization is 4.5 million boxes. Utilization of both **Honey** tangerines and all tangerines was the lowest since 1994-95. The early portion (**Fallglo** and **Sunburst**) equaled last season's production at 2.3 million boxes; Honey tangerines finished at 2.2 million boxes. **Tangelo** harvest is 900,000 boxes, the lowest since 1963-1964.

FCOJ Increased to 1.56 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) is increased to 1.56 gallons per box of 42° Brix concentrate for all oranges. The late (Valencia) projection is 1.63 gallons per box. The early-midseason component is final at 1.511083 gallons per box, as reported by the Florida Department of Citrus.

Forecast Components of Production from Objective Surveys – Florida: 2005-2006 through 2009-2010

Fruit type and crop year	Number bearing trees	Sample survey averages		
		Fruit per tree	Percent drop[1]	Fruit per box[1]
	(1,000 trees)	(number)	(percent)	(number)
Early-Midseason Oranges [2 3]				
2005-2006	27.270	947	11	288
2006-2007	26.119	690	8	233
2007-2008	25.280	1,058	8	264
2008-2009	24.939	1,082	11	257
2009-2010	24.575	862	8	246
Navel Oranges				
2005-2006	1.525	431	9	139
2006-2007	1.388	337	10	130
2007-2008	1.303	443	10	137
2008-2009	1.233	481	11	136
2009-2010	1.151	365	10	138
Valencia Oranges				
2005-2006	37.161	609	14	240
2006-2007	36.161	426	15	198
2007-2008	34.918	676	15	221
2008-2009	34.374	575	15	219
2009-2010	33.685	478	14	218
White Seedless Grapefruit				
2005-2006	2.133	211	12	86
2006-2007	2.012	469	12	84
2007-2008	1.833	558	18	99
2008-2009	1.620	407	9	85
2009-2010	1.462	430	12	96
Colored Seedless Grapefruit				
2005-2006	4.330	248	11	91
2006-2007	4.232	449	16	91
2007-2008	4.094	499	13	109
2008-2009	3.961	429	12	97
2009-2010	3.794	410	10	109

[1] Averages at cut-off month—January 1 for early-midseasons, December 1 for Navels, April 1 for Valencias, and February 1 for grapefruit.
[2] Excludes Navels.
[3] Includes Temples.

The above table shows the production components used for the 2009-10 forecast season. Bearing trees are estimated at the beginning of each forecast season using the most recent tree inventory with an allowance for expected attrition. Revisions are made to the historic series where applicable.

Fruit per tree is the weighted average obtained from the annual Limb Count survey and is conducted during a ten-week period from mid-July to mid-September. Survey averages for each tree age group within an area are weighted by the estimated number of bearing trees for each age group.

Fruit size measurements and drop observations are obtained from monthly surveys. The average drop percentages are from the final month used in the forecast model. Average fruit sizes were also obtained from the same survey period and have been converted in the table to estimated number of fruit needed to fill a box.

These four factors are the primary components used in the initial October forecast and in following months up to the "cut-off" for each fruit type. The first two factors have the greatest influence on the forecast.

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For Immediate Release:

Growers Laud Senate Effort to Fund Citrus Research

LAKELAND, Fla. *(July 12, 2010)* – The leadership of Florida Citrus Mutual today endorsed federal legislation intended to help the Florida citrus industry battle invasive pests and diseases.

The bill would divert a portion of the federal tariff on imported citrus products, including frozen concentrate orange juice, to finance the Citrus Disease Research and Development Trust Fund. The money would be distributed by a nine-member board comprised of representatives from citrus producing states – Florida, California, Arizona and Texas.

The measure, sponsored by Florida Sen. Bill Nelson, has broad support from the domestic citrus industry.

"We are in the fight of our lives," said Michael W. Sparks, executive VP/CEO of Florida Citrus Mutual. "This will certainly give us a leg up in protecting an essential U.S. industry."

HLB, or citrus greening, is now threatening to wipe out the Florida citrus industry. The disease, which can be found in all 32 Florida commercial citrus producing counties, attacks the vascular system of trees and can kill them in two years. The disease was discovered in 2005 and is not native to Florida.

Over the past four years, Florida growers have committed more than $39 million to research HLB and its vector - the Asian citrus psyllid - in the laboratory. The effort has resulted in more than 100 ongoing research projects.

"Over the next few months, the domestic citrus industry will be aggressively communicating the importance of this bill to members of Congress," Sparks said.

The Florida citrus industry creates a $9 billion annual economic impact, employing nearly 76,000 people, and covering more than 576,000 acres. Founded in 1948 and currently representing nearly 8,000 grower members, Florida Citrus Mutual is the state's largest citrus grower organization. For more information, visit www.flcitrusmutual.com.

http://www.citrusrdf.org/blog/

Citrus Research and Development Foundation announces new web site to serve the citrus industry
The newly designed web site for the Citrus Research and Development Foundation goes live today on the World Wide Web. This new site (formerly located at fcprac.com) aims to reach all stakeholders in the citrus industry and keep them informed with breaking news and updates about research on citrus greening, canker and other exotic diseases. The new web site address is www.citrusrdf.org.

Citrus Research and Development Foundation Home Page

The CRDF is a non-profit corporation whose mission is to advance citrus disease research and product development activities that ensure the survival of the industry. General information about citrus diseases as well as more detailed reports on research progress are available from our Home Page.

FOR GROWERS: QUARTERLY REPORT SEARCH ENGINE

One of the most valuable resources on the web site is our Quarterly Report Search Engine. This search engine accesses our online library containing hundreds of reports, submitted in real-time, in which researchers present specific results in areas that include psyllid management, nutritional approaches to disease control, low-volume spraying, genetics, physiological studies and more. Growers can easily search progress report archives containing updates on all projects funded by the organization. Legacy reports dating back to 1998 are also available online. Several additional search features are also planned for release over the next few weeks.

Quarterly Report Search Engine

FOR SCIENTISTS: SUBMITTING QUARTERLY RESEARCH REPORTS

The CRDF uses the same quarterly reporting system that was found at fcprac.com. The only difference between the two is the visual appearance. The data fields and submission process remains the same. Here are two links to help you get started submitting your reports using the CRDF system.

Submitting Quarterly Reports to the CRDF

Log In and Submit Quarterly Research Reports

IF YOU HAVE QUESTIONS

We continually work on new and easier ways to keep you informed about our program and activities. We also understand you might have questions or suggestions for us on how to improve our communications. If so, feel free to contact us at the email address, anowicki@citrusrdf.org, and we will reply as soon as possible.

Contact the Citrus Research and Development Foundation

La Niña conditions are likely to develop during July–August 2010

During June 2010, sea surface temperature (SST) anomalies continued to decrease across the equatorial Pacific Ocean, with negative anomalies expanding across the central and eastern Pacific. While the rate of decrease slowed during June, all of the Niño indices were cooler compared to the previous month. The subsurface heat content (average temperatures in the upper 300 m of the ocean) also remained below-average during the month. Subsurface temperature anomalies became increasingly negative in the east-central equatorial Pacific and extended to the surface across the eastern half of the basin. Also during June, enhanced convection persisted over Indonesia, while the area of suppressed convection strengthened and expanded westward over the western and central equatorial Pacific. Enhanced low-level easterly trade winds and anomalous upper-level westerly winds prevailed over the western and central equatorial Pacific. Collectively, these oceanic and atmospheric anomalies reflect developing La Niña conditions.

The majority of models now predict La Niña conditions (SST anomalies less than or equal to -0.5°C in the Niño-3.4 region) to develop during June-August and to continue through early 2011. Confidence in this outcome is reinforced by the recent performance of the NCEP Climate Forecast System (CFS), the large reservoir of colder-than-average subsurface water, and signs of coupling with the atmospheric circulation. Therefore, La Niña conditions are likely to develop during July-August 2010.

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center web site (El Niño/La Niña Current Conditions and Expert Discussions). Forecasts for the evolution of El Niño/La Niña are updated monthly in the Forecast Forum section of CPC's Climate Diagnostics Bulletin. The next ENSO Diagnostics Discussion is scheduled for 5 August 2010. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

Climate Prediction Center National Centers for Environmental Prediction NOAA/National Weather Service Camp Springs, MD 20746-4304

La Niña is defined as cooler than normal sea-surface temperatures in the central and eastern tropical Pacific Ocean that impact global weather patterns. La Niña conditions recur every few years and can persist for as long as two years.

La Niña often features drier than normal conditions in the Southwest in late summer through the subsequent winter. Drier than normal conditions also occur in the Central Plains in the fall and in the Southeast in the winter. In contrast, the Pacific Northwest is more likely to be wetter than normal in the late fall and early winter with the presence of a well-established La Niña. Additionally, on average La Niña winters are warmer than normal in the Southeast and colder than normal in the Northwest.

Packinghouse Day & The Indian River Postharvest Workshop

2010 Programs

Packinghouse Day

When: Thursday, August 26th, 2010

Where: Citrus Research and Education Center, 700 Experiment Station Road, Lake Alfred, FL 33850

Time: Registration opens at 8:30 A.M., Program starts at 9:30 A.M.

Lunch Sponsor: DECCO

Indian River Postharvest Workshop

When: Friday, August 27th, 2010

Where: Indian River Research and Education Center, 2199 S. Rock Rd., Ft. Pierce, FL 34945

Time: Registration opens at 8:30 A.M., Program starts at 9:30 A.M.

Lunch Sponsor: JBT FoodTech

This year, information related to citrus black spot will dominate both programs. Presentations will include:

- Citrus black spot and its management in Brazil - Dr. Eduardo Feichtenberger (Sao Paulo State Department of Agriculture, Brazil)
- Citrus black spot (*Guignardia citricarpa*): identification, biology, and control in Florida – Megan Dewdney & Natalia Perez (UF IFAS CREC & GCREC)
- Updates about the latest Federal and State activities and regulations related to citrus black spot.
  Michael Hornyak & David Munyan (USDA CHRP)
  Dr. Tim Schubert – (FDACS DPI)
- New techniques of detecting infected and damaged fruit using ultraviolet light – Dr. David Obenland (USDA ARS, California)
- Pre- and postharvest techniques to minimize peel breakdown of fresh citrus – Dr. Mark Ritenour (UF IRREC)

No pre-registration required.

For questions and the latest details, contact Mark Ritenour at 772-468-3922, ext. 167 (ritenour@ufl.edu).

Flatwoods Citrus

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Multi-County Citrus Agent
Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975

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Racial-Ethnic Background

__American Indian or native Alaskan
__Asian American
__Hispanic
__White, non-Hispanic
__Black, non-Hispanic

Gender

__Female
__Male