

EXTENSION

Institute of Food and Agricultural Sciences



Vol. 4, No. 11 November 2001 Dr. Mongi Zekri, Multi-County Citrus Agent

UPCOMING EVENTS

*See attached sheets on Special Seminars on new technology for irrigation management (October 29 through November 2, 2001)

Short term forecasts – weather by the seat of your pants

Date: Tuesday, November 13, 2001, 10:00 AM – 12:00 Noon
Location: Immokalee IFAS Center
Speaker: Jim Clarke, meteorologist, NBC-WBBH TV, SW Florida
Sponsor: ?
2 CEUs for Certified Crop Advisors
Following the seminar, we are planning a free lunch



(Compliments of Agrilink Florida Inc.) for only who call Sheila at 863 674 4092 no later than Friday, 9 November.

Tuesday, November 20, 2001, 10:00 AM – 12:00 Noon

Scott's controlled release fertilizer, dry application of fertilizers and methods to reduce ammonia volatilization

Speakers: Drs. Tom Obreza, Bob Rouse and Andree-Ann Couillard Sponsor: Dr. Andree-Ann Couillard, The Scotts Company 2 CEUs for Certified Crop Advisors

Following the seminar, we are planning a free lunch (Compliments of the Scotts Company) for only who call Sheila at 863 674 4092 no later than Friday, 16 November.

Participants with disabilities seeking accommodations, please inform us at least three working days prior to the program

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Hendry County Extension Ag Tour

Date: December 8, 2001 For more information, call Inez at 863 674 4092



Tuesday, January 15, 2002, 10:00 AM – 12:00 Noon Thrips, citrus psyllid, and citrus greening Speakers: Drs. Carl Childers and Pam Roberts Sponsor: Sim Nifong, Dow AgroSciences 2 CEUs for Pesticide License Renewal 2 CEUs for Certified Crop Advisors

Tuesday, February 5, 2002, 8:30 AM – 4:00 PM <u>Workshop</u> on scouting for pests and diseases Speakers: John Taylor and Drs. Pam Roberts and Mongi Zekri Sponsor: Robert Gregg, Syngenta 6 CEUs for Pesticide License Renewal 6 CEUs for Certified Crop Advisors

Tuesday, February 19, 2002, 10:00 AM – 12:00 Noon Water management and issues related to water regulations Speakers: Mary N. Gosa and Drs. Larry Parsons and Sanjay Shukla Sponsor: Donna Muir Strickland, Monsanto 2 CEUs for Certified Crop Advisors

Tuesday, March 19, 2002, 10:00 AM – 12:00 Noon Precision Ag and application technology Speakers: Neal Horrom, Mike Roberts and others Sponsor: Keith Hollingsworth, Chemical Containers 2 CEUs for Pesticide License Renewal 2 CEUs for Certified Crop Advisors



Tuesday, April 16, 2002, 10:00 AM – 12:00 Noon Grove replanting and resetting strategies and Diaprepes and canker update Speaker: Jack Neitzke and Drs. Fritz Roka and Clay McCoy Sponsor: ? 2 CEUs for Pesticide License Renewal 2 CEUs for Certified Crop Advisors



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FLORIDA CITRUS AQUATIC WEED MANAGEMENT

Aquatic weeds and algae can severely degrade the operation of the surface water irrigation and drainage systems in Florida's citrus groves.

Management of aquatic and ditch bank weeds is usually essential to maintain water flow in canals and ditches, and to maintain access to irrigation water sources in lakes and ponds. Additionally, weeds growing in and around canals, ditches, and other water bodies serve as a seed source for development of weed infestations in the planted portion of the groves.



Aquatic plants are generally

grouped into one of the following habits:

- **Submersed, with the vegetation growing below the surface of the water,
- **Floating, with the vegetation growing on the surface of the water and not rooted in the soil,
- **Emergent, with the vegetative growth rooted in the soil, with the plants extending above the surface of the water,
- **Shoreline, with the vegetative growth mainly on the shore, with some plants at times extending into the body of water.

When management measures are required, aquatic weed infestations are usually managed by one or more of the following methods:

- 1. Chemical management programs using aquatic herbicides
- 2. Mechanical removal of the aquatic weeds
- 3. Biological management programs which utilize living organisms to reduce unwanted weed growth
- 4. Water level alteration which can aid in managing aquatic weeds under certain conditions

The most widely used method of managing aquatic weed growth in Florida at present is through chemical management programs using herbicides. Before using any herbicide, read the product label and follow all directions and precautions.



Special Thanks to these sponsors of the Flatwoods Citrus Newsletter for their generous contribution and support. If you would like to be among them, please contact me at Phone 863 674 4092, Fax: 863 674 4636, or maz@gny.ifas.ufl.edu

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MORE ON FLORIDA CITRUS AQUATIC WEED MANAGEMENT

Products with soil residual activity should not be applied around or adjacent to root systems of crops or desirable vegetation. Some aquatic herbicide applications in agricultural waters may require an aquatic weed management permit which is issued by the Florida Department of Environmental Protection.

A number of factors may affect the results of an aquatic weed management program. Some of these factors are: density of weed infestations, water quality, water flow, water temperature, time of day treatment is made, growing condition of target plant, time of year of treatment, method of herbicide application, weed species being managed, soil type, soil moisture conditions, weather conditions before and after treatment, and the particular combination of treatment methods used.

Excess growth of aquatic weeds causes numerous problems in Florida. These weeds interfere with agricultural irrigation, restrict recreation, lower game fish production, lower the value of waterfront property, degrade the appearance of our waters and cause numerous other problems.

Biological, chemical and mechanical methods may be used alone, or in combination, in an integrated management program to manage unwanted aquatic weeds. Herbivorous fish provide one means of biologically managing aquatic weeds.

The grass carp, a herbivorous fish that has been evaluated extensively, is very effective in aquatic weed management programs. Triploid grass carp are now being produced to prevent unwanted reproduction. The triploid grass carp have an extra set of chromosomes and are therefore sterile. In some



cases fish must be confined within a certain area. For more detailed information contact your County Extension Office.

For more details, get

-Florida Citrus Aquatic Weed management guide (SP 168), by Vernon V. Vandiver -Weed Control in aquaculture and farm Ponds (Circular 707), by D.D. Thayer et al. -Aquatic Weed Terms (Fact Sheet AGR-76)

-Fish Containment Barriers (Fact Sheet AGR-78)

-Florida Department of Environmental Protection Aquatic Plant Management Permit Program (Fact Sheet AGR-79

United States Department of Agriculture National Agricultural Statistics Service

Citrus Fruits 2001 Summary

U.S. utilized production of citrus for the 2000-01 season totaled16.4 million tons, down 5 percent from the 1999-2000 season. The utilization is, however, the fourth highest, 8 percent lower than the record high 17.8 million tons from the 1997-98 season. Florida total citrus utilization decreased 7 percent from last season. California produced 2 percent less citrus. Florida accounted for 76 percent of The total U.S. citrus production; California totaled 21 percent, while Texas and Arizona produced the remaining 3 percent.



Florida's orange production of 223 million boxes (10.0 million tons) was down 4 percent from the previous season. Average fruit size was the smallest in the last 10 years. The dry weather conditions and cold winter contributed to very low rates of growth. Florida's grapefruit utilization of 46.0 million boxes (1.96 million tons) was down 14 percent from last season's utilization. The number of bearing acres was the lowest since the 1991-92 season and the fruit size was the smallest since the 1992-93 season.

In California, orange utilized production, at 59.0 million boxes (2.21 million tons), was down 8 percent from the previous season. Navel utilization was down 10 percent from the previous season. The number of fruit per tree was down considerably, but fruit size was large. Valencia utilized production was down 4 percent. Fruit set was up in southern areas of the State, but down significantly in the Central Valley. California grapefruit utilized production was down 10 percent from the previous season. Fruit set was light compared to last season, but sizes were larger.

If you want to print a color copy of the Flatwoods Citrus Newsletter, get to the New Home of <u>the Florida Citrus</u> <u>Resources Site</u> at <u>http://www.fcprac.ifas.ufl.edu/</u>

You can also find all you need and all links to the University of Florida Citrus Extension and the Florida Citrus Industry. Texas orange utilization increased 35 percent from a year ago and grapefruit utilization was up 21 percent. The 383,000 tons of citrus from Texas is the highest since the 1982-83 season. Arizona's total citrus production was 1 percent less than the previous season. A 16 percent increase in lemons was offset by decreases in orange, grapefruit, and tangerine utilization.

The value of the 2000-01 U.S. citrus crop decreased 10 percent from last season to \$2.26 billion (packinghouse-door equivalent). Total value of production was lower for all types of citrus. The all

orange value of production decreased 2 percent from a year ago. The average U.S. fresh price was up 30 percent, but the average U.S. processing price was down 12 percent and 81 percent of the U.S. oranges were processed. Florida processing prices were down 15 percent from the 1999-2000 season. The total value of the U.S. grapefruit crop was down

primarily to the 11 percent



decrease in production and a 27 percent decrease in the U.S. all grapefruit price.

Florida processed prices were down 40 percent from the previous season and fresh grapefruit prices in Texas were less than half of their 1999-2000 level. A 19 percent increase in lemon utilized production was offset by a 33 percent decrease in the U.S. all lemon price. This resulted in a 20 percent decrease to the value of U.S. lemons. Tangerine value of production dropped 8 percent from last season, attributed primarily to the 19 percent decrease from last season's record large utilization. The decreased value was offset by a 12 percent increase in the U.S. all tangerine price.

The revised production and utilization estimates were based on all data available at the end of the marketing season, including information from marketing orders, shipments, and processor records. Allowances were made for recorded local utilization and home use. Estimates for the 2000-01 California Valencia oranges and grapefruit are preliminary, since the marketing season was not complete at publication time. Revisions to the utilized production estimates for all citrus for the 2000-01 season will be available in the April 10, 2002 Crop Production release.

CITRUS PRODUCTION AND VALUE

The preliminary on-tree value of all citrus for the 2000-01 season at \$760 million is the lowest since the 1985-86 season value of \$725 million. This value of production reflects a decline of over 30 percent from the previous season that realized a one percent increase from the preliminary to the revised value. Total production is down nearly seven percent with individual crops, except lemons, down from four to 64 percent. Price per box and value of production are down for oranges, grapefruit, and most of the specialty fruit.

With orange production down four percent and the price down 24 percent, the value of production fell 27 percent. Navel production is down from 5.4 million boxes in 1999-00 to 5.1 million. More of the Valencias and Navels were used fresh with Navels comprising 59 percent of the early midseason Navels shipped fresh.

The value of the grapefruit crop is less than half of values recorded in 1998-99 and 1999-00 but higher than the two previous seasons. Revised seedy crop price and value are shown for 1999-00, the last season such data are published separately. Grapefruit production is down 14 percent with processing amounts down more than fresh for both white and colored varieties.

Lemon production is 56 percent higher than that of the previous season's incomplete harvest but production is lower for the remainder of the specialty fruit. Following the record high season, tangerine production is down 20 percent to the fourth largest crop on record. Limes fell to a near record level after six consecutive seasons of increases. K-Early Citrus Fruit tied the record low set in 1997-98. This is the smallest tangelo crop since 1968-69. Temple production is the lowest recorded since the series began in 1953-54. Price per box of fruit is higher for K-Early Citrus, Honey tangerines, and the acid fruit (limes and lemons). Lemons, the only crop with increased production and a higher price, have a value significantly higher. Value of the K-Early crop is the only other increase over the previous season's.

PRODUCTION BY COUNTIES

Total citrus production (excluding limes and lemons) has declined by 6.5 percent in the 2000-01 season. Only the Southern production area records an increase (6 percent) while the other areas have decreases ranging from 10 percent to 15 percent.

Hendry leads all counties with 36.3 million boxes, followed by Polk, Highlands, St. Lucie, and DeSoto. Once again these top five counties account for over 54 percent of the total production. Production by marketing district is distributed as follows: Indian River, 51.2 million boxes, 18



percent; Gulf, 64.2 million, 23 percent; and SunRidge, 162.8 million, 59 percent. <u>Each of the Gulf district counties (Charlotte, Collier, Glades, Hendry, and Lee) has an increase</u>. The only other county to record an increase is Okeechobee.

<u>Hendry's orange production surpasses 32.0 million boxes</u> and Polk follows with 29.3 million. Over 25.8 million boxes come from Highlands and DeSoto contributes nearly 24.6 million. The top four producers account for 50 percent of the total 223.3 million boxes, third largest crop on record. The harvests of St. Lucie, the top grapefruit producer with 17.0 million boxes, and Indian River with 11.8 million total more than 60 percent of the crop. Hendry and Polk follow with over 3.0 million boxes each. The varietal breakdown is colored varieties 59 percent and white (including seedy) 41 percent.

Utilization of the specialty crops is down this season with decreases ranging from 4.5 percent for tangelos to 64 percent for K-Early Citrus. Temples and K-Early Citrus are at record low levels. All tangerines are down 20 percent with a slightly larger decrease in the Honey variety. Over three-fourths of the early tangerines are Sunburst, 19 percent are Fallglo, with Robinson and Dancy constituting the remainder. Top producers of specialty fruit are the ridge counties of Polk, Highlands, and Lake; Hendry in the south; and St. Lucie on the coast.

Estimates of county production are prepared from objective survey data used in forecasting citrus crop production. The apportionment of final harvest to the counties is based on bearing trees from the biennial Commercial Citrus Inventory; the limb count survey, which provides an estimate of the average fruit per tree; and the drop and size surveys, which provide estimates of the amount of fruit on the tree available at harvest and the size of the fruit at that time. The size of the samples used in these surveys and the distribution of the sample groves around the state are chosen to minimize the error in the estimates of production and are not to be considered as accurate for the counties as at the state or area level.

BOXES OF FRUIT PER TREE

The Florida Agricultural Statistics Service conducts objective surveys to determine fruit per tree, average sizes, and droppage between August and maturity. These data are used to estimate production per tree for each of four types of citrus fruit, as shown in the following tables.

The estimates of production per tree are based on official end-of-season production estimates and the number of bearing trees indicated by the citrus tree inventory surveys. The averages of boxes per tree for age groups shown are calculated from estimates of fruit per tree in August, size at maturity, and drop between August and maturity.

Additionally, the boxes are subdivided by production areas. Estimated boxes by types and age groups are weighted averages of the indicated seasons. Small sample sizes in some age/area cells and rounding may contribute to inconsistent averages. BEARING TREES

Tree numbers shown below are forecast trees of bearing age for the 2000-01 season. Total bearing trees increased from the previous season for Valencia oranges but decreased for the early-midseason-Navel oranges and grapefruit varieties. With trees maturing, population increases occurred in Age 3 (9-13 years) and Age 4 (14-23 years). Corresponding decreases in younger trees were noted for each of the fruit types listed except the youngest oranges. Bearing trees in the oldest category declined from the previous season. Unidentified trees of bearing age are prorated to identified types by year in which set. Most of these are first year bearing trees, which will be identified in the field during the next tree census.

From the Florida Agricultural Statistics Service

The 2001-02 Florida orange forecast (excluding Temples), released in October2001 by the USDA Agricultural Statistics Board, is 231 million boxes. This forecast is 3 percent larger than the 223.3 million boxes recorded as final production last season and 5 percent below the record high production of 244 million boxes utilized in 1997-98 season. The early and midseason orange forecast (including 5.6 million boxes of Navels) is 131 million boxes. This forecast is 2.3 more than last season's crop of 128 million boxes. The late type (Valencia) is at 100 million boxes, which is 4.9% more than the 95.3 million boxes recorded last season. For the numbers of grapefruit, Temples, tangelos and tangerines, see the following Table.

	Production							Difference in 2001-02 compared with 2000-01	
Cultivar	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02		
Early/Mid orange	121.2	134.2	140.0	112.0	134.0	128.0	131.0	+2.3%	
Valencia orange	82.1	92.0	104.0	73.7	99.0	95.3	100.0	+4.9%	
All oranges	203.3	226.2	244.0	185.7	233.0	223.3	231.0	+3.5%	
All grapefruit	52.35	55.8	49.55	47.05	53.4	46.0	48.0	+4.3%	
Temples	2.15	2.40	2.25	1.80	1.95	1.25	1.40	+12%	
Tangelos	2.45	3.95	2.85	2.55	2.2	2.1	2.3	+9.5%	
All tangerines	4.5	6.3	5.2	4.95	7.0	5.6	7.0	+25%	
Limes	0.30	0.32	0.44	0.50	0.60	0.25	0.20	-20%	
Lemons			0.12	0.235		0.265			
<u>Total</u>	265.05	294.97	304.450	242.865	298.15	278.765	289.90	+4%	

Florida Citrus Production (Million Boxes)

2000-2001 Southwest Florida Citrus Production (Boxes) & Florida Citrus Prices (\$)

Cultivar	Charlotte	Collier	Glades	Hendry	Lee	Total	Avg. On-Tree Prices & Returns/Box		
							Fresh	Processing	All
Early/Mid orange	2,440,000	5,966,000	2,259,000	15,566,000	1,553,000	27,784,000	4.00	1.98	2.08
Valencia orange	3,167,000	5,509,000	1,328,000	16,458,000	1,768,000	28,230,000	4.70	3.70	3.74
White grapefruit	78,000	211,000	8,000	880,000	47,000	1,224,000	6.53	0.63	1.88
Colored grapefruit	1,375,000	842,000	215,000	2,524,000	443,000	5,399,000	4.30	-0.23	2.01
Early tangerines	207,000	112,000	51,000	221,000	55,000	646,000	8.50	-0.15	5.88
Honey tangerine	60,000	117,000	49,000	439,000	23,000	688,000	14.50	-0.11	9.10
Temples	14,000	29,000		117,000	1,000	161,000	5.10	0.64	1.91
Tangelos	13,000	14,000	3,000	50,000	7,000	87,000	3.60	-0.32	1.06
TOTAL	7,354,000	12,800,000	3,913,000	36,255,000	3,897,000	64,219,000			

Southwest Florida Citrus Acreage and Tree Numbers

	<u>1970</u>	<u>1982</u>	<u>1986</u>	<u>1990</u>	<u>1992</u>	<u>1996</u>	<u>1998</u>		<u>2000</u>	
	Acres	Trees (million)	Acres	Trees (million)						
Charlotte	6,734	6,120	8,759	11,718	15,981	21,183	21,522	3.172	21,756	3.201
Collier	5,052	7,931	10,063	23,565	34,167	36,583	35,655	5.251	35,302	5.209
Glades	1,572	4,026	6,076	7,523	9,136	9,402	10,776	1.684	10,506	1.692
Hendry	22,447	32,944	40,269	73,754	87,396	99,770	100,124	15.409	99,437	15.325
Lee	7,439	6,711	7,313	9,692	10,559	12,155	11,871	1.649	11,594	1.626
SW FL Total	43,244	57,732	72,480	126,252	157,239	179,093	179,948	27.165	178,595	27.053
State of Florida	941,471	847,856	624,492	732,767	791,290	857,687	845,260	107.110	832,275	106.679
SW FL (%)	4.6	6.8	11.6	17.2	19.9	20.9	21.3	25.4	21.5	25.4

In **1970**, the Southwest Florida Citrus Acreage was 43,244 (less than 5% of the State of Florida Total Citrus Acreage '941,471'). Since **1998**, in Southwest Florida, Citrus Acreage has been **over 21%** of the State of Florida Total Citrus Acreage and the Number of Citrus Trees is **over 25%** of all Citrus Trees in the State.