CITRUS

OCTOBER FORECAST MATURITY TEST RESULTS AND FRUIT SIZE



October 11, 2002

ALL ORANGES AT 197.0 MILLION BOXES

The 2002-03 Florida orange forecast (excluding Temples) released today by the USDA Agricultural Statistics Board is 197.0 million boxes. This is 14 percent less than the 230.0 million boxes recorded as final production last season and 19 percent below the record high utilization of 244.0 million boxes in the1997-98 season. The two forecast categories are early-midseason at 113.0 million boxes (including 5.5 million boxes of Navels) and late type (Valencia) at 84.0 million boxes. All forecasts are based entirely on tree inventory, fruit counts, and fruit measurements made by the Florida Agricultural Statistics Service. Analysis of these factors projects the quantity of fruit to be utilized during the current season, including less than two percent for non-certified use. Historically, there has been no measurable loss of oranges for economic reasons. No economic abandonment is anticipated in this forecast.

The October all orange forecasts, during the past 10 seasons, have differed from the final recorded utilization by an average of 3.3 percent. Seasonal differences range from 9.4 percent below in 1999-00 to 7.5 percent above in 2000-01. Four of the 10 seasons have been above and six have been below.

Weather conditions during the early months of 2002 were generally mild, but very dry. Despite extensive irrigation, the citrus bloom period (February-May) was adversely affected by the lack of moisture. Late spring showers were highly variable in location and intensity. Adequate moisture was attained in summer, accompanied by hot weather.

Citrus production, October 1, 2002 forecasts by varieties and states, with comparisons

	ı					
Crop and State		Production				
	1999-00	2000-01	2001-02	2002-03		
Early, Midseason, and Navel Oranges:		1,000) boxes			
FLORIDA California Texas Arizona	134,000 40,000 1,460 600	128,000 35,500 2,000 480	128,000 34,000 1,530 270	113,000 40,000 1,400 200		
Total Above Varieties	176,060	165,980	163,800	154,600		
Valencias:						
FLORIDA California Texas Arizona	99,000 24,000 200 500	95,300 19,000 235 420	102,000 22,000 210 250	84,000 23,000 180 250		
Total Valencias	123,700	114,955	124,460	107,430		
All Oranges:						
FLORIDA California Texas Arizona	233,000 64,000 1,660 1,100	223,300 54,500 2,235 900	230,000 56,000 1,740 520	197,000 63,000 1,580 450		
Total All Oranges	299,760	280,935	288,260	262,030		

FORECAST DATES 2002-03 SEASON

November 12, 2002

December 10, 2002

Summer weather conditions lead to an accelerated maturity, evident in fruit size, compared to recent seasons.

Less than two percent of the fruit counted for the forecast was "non-regular" bloom fruit. July and later blooms, not included in the forecast, average less than three fruit per sample tree. Both categories are very small amounts and comparable to the previous season.

Bearing trees include 1999 plantings (three years old at bloom time) as shown in the 2002 Commercial Citrus Inventory, updated by one season of attrition. This season 78.0 million trees, an increase of less than one percent from the Census adjusted trees used last season, are used to expand the objective count data. Attrition rates were used to reflect the loss of bearing trees from the effects of tristeza and other diseases.

The average fruit per tree (excluding Navels) is down over 17 percent from last year's fruit count period. Combined with bearing trees this indicates a 17 percent lower fruit population. Fruit sizes are considerably larger than last season, which partially offsets the smaller fruit population in the box forecast. The youngest bearing age group, three through five years, contributes only three percent of the total fruit population. The oldest age group, 24 years and older, contributes 23 percent to the total fruit population.

The forecast procedures used in all forecasts are identical with past seasons. The methodology is described on page six of this report.

FCOJ YIELD 1.57 GALLONS PER BOX

The all orange FCOJ yield projection is 1.57 gallons per box of 42 degrees Brix concentrate. This is slightly lower than last season's 1.58 gallons per box final yield as reported by the Florida Citrus Processors Association. Final yield for the 2000-01 season was 1.58 gallons and 1.55 gallons in 1999-00. The record high of 1.63 was recorded in the 1998-99 season. A separate projection for fruit going into the early-midseason category and late (Valencia) oranges will be made in the January release.

All projections of yield assume the processing relationships of the past several seasons. Results of the latest maturity testing with comparisons are found on pages 3 and 4.

EARLY-MIDSEASONS 113.0 MILLION BOXES

The early-midseason orange forecast (including Navels) is 113.0 million boxes. The forecast is 12 percent less than both last season's utilization and the 2000-01 crop, each of which had 128.0 million boxes as final recorded utilization. If realized, it will be 19 percent less than the record use of 140.0 million boxes in 1997-98.

Excluding Navels, 34.0 million trees are used to compute this forecast, only 135,000 less than the number of trees used in last season's forecast. The average fruit per tree (weighted by the 25 cell age/area matrix) is 17 percent less than last season. Only one percent of the fruit used in the forecast is of a "non-regular" configuration. The Western Area has the most fruit per tree. The combination of the Central and Western Areas contributes 61 percent of the fruit population. The early portion (mostly Hamlins) is 84 percent of the early-mid fruit population.

Average fruit size in September (measured in spherical cubic inches) was 18 percent larger than a year ago and 15 percent above the recent 10 season mean, reflecting the observed advanced maturity level of the crop. The growth rate between August and September was slightly below the series average. It is projected that it will take 20 less fruit than last season to make a 90 pound equivalent box.

Loss from fruit droppage prior to harvest is projected to be about three percentage points above last season and the 10 season mean. Fruit splitting from excessive moisture has been observed in some groves. Droppage from the tree is the only loss factor measured and is relative to historic relationships for analysis. The loss factor indicator can vary because of future weather conditions

NAVEL ORANGES 5.5 MILLION BOXES

The Navel orange forecast is 5.5 million boxes including 1.0 million boxes of unrecorded gift fruit and other use, the same as the recorded utilization last season, but greater than the preceding three seasons. The record high crop of 6.4 million boxes was recorded in 1996-97. The Navel forecast is included in the total early-midseason forecast. Significant differences in fruit set, size, drop and harvest patterns necessitate a separate expansion that is used as an add-on to the other early- midseaon indicators.

Bearing trees continue to decline and are five percent less than last season. Fruit per tree is down about two percent. Fruit sizes are larger than last season and the average mean size, while loss from droppage is advanced. Harvest is underway and there is expectation of greater utilization of the crop because of the early maturity and larger sizes.

VALENCIA ORANGES 84.0 MILLION BOXES

The 84.0 million box late type (Valencia) forecast is 18 percent less than last season and 19 percent less than the record high crop of 104.0 million boxes harvested in the 1997-98 season. If the forecast is realized, it will be smaller than six out of the past 10 seasons.

At 41.7 million bearing trees, the total used in the forecast is two percent more than the adjusted trees that produced last season's crop. The youngest age group has 12 percent more trees than last season, while the oldest age group declined three percent. The Southern Area has the largest number of bearing trees, 39 percent of the total.

Average fruit per tree is down 18 percent from last season. The Southern Area continues to lead in fruit population, having 33 percent of the total. The average September fruit size measurement was 25 percent more than the 10 season mean, reflecting advanced maturity levels. However, it is projected that it will take only five less fruit at harvest to fill a box. Loss from droppage is projected to be three percentage points more than last

Components used in the October Forecast

Туре	Bearing trees	Fruit per tree	Percent droppage	Fruit per box
	(1,000)			
Early-Mid	34,042	950	12	239
Navel	2,313	454	14	134
Valencia	41,682	524	16	206

season and one percentage point more than the 10 season mean. The loss factor of this variety can vary considerably between 11 and 20 percent because of weather conditions during the long growing season.

TEMPLES 1.4 MILLION BOXES

The Temple forecast at 1.4 million boxes is ten percent less than last season's production but 12 percent larger than the smallest crop of 1.25 million boxes recorded in 2000-01. If attained, this forecast would equal the freeze affected 1989-90 crop as the second smallest on record.

Bearing trees, having declined steadily in recent years, are down eight percent from last season and now number 509,000. Fruit per tree at 688 is down 21 percent. Sizes are above average and it is expected that 187 pieces will fill a 1 3/5 bushel box compared with 234 last season. The projected droppage rate is slightly higher but near average at 10 percent.

TANGELOS 2.4 MILLION BOXES

Tangelo production is forecast at 2.4 million boxes, an increase of 12 percent over the 2001-02 crop of 2.15 million boxes and 14 percent above harvest of 2000-01.

The number of bearing trees has dropped five percent to 1.151 million but is nearly offset by a similar increase in fruit per tree. Total fruit population is within one-half percent of last season's figure. More of the fruit is expected to be available for harvest as current droppage is below the level of the previous 10 seasons and is projected at eight percent for the season. Current volume is greater than at this same point in the previous 10 seasons. With the projected fruit size, it will take about 15 fewer fruit to fill a 90 pound box than last season.

K-EARLY CITRUS FRUIT

This fruit type has been declassified by the Florida Citrus Commission and forecasts have ceased. Bearing acreage had declined to 200 acres and production reached a record low level of 30,000 boxes in the 2001-02 season.

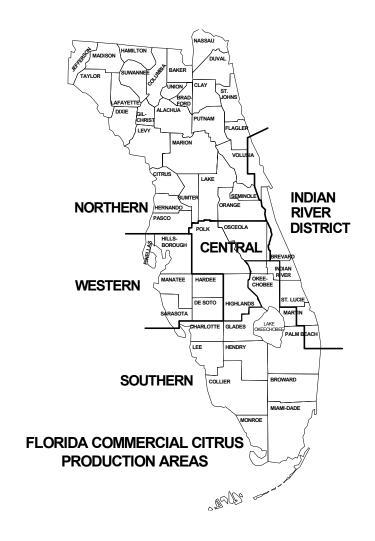
Expected gift fruit shipments under the 6-R program, and non-certified usage, 2002-03 season

y ,	
Туре	1,000 boxes
Early and Midseason Oranges Valencia Oranges White Grapefruit Colored Grapefruit Temples Tangelos	2,000 1,000 500 1,000 50 200
Tangerines	300

Florida Citrus: Distribution of estimated fruit population in September by areas and age groups ^{1/}

Sep	otember by a	reas and ay	e groups			
Areas	Oranges					
and	Early - Mi	dseason	Valencia			
age groups	2001-02	2002-03	2001-02 2002-03			
		Pe	rcent			
Indian River						
District	7	6	11	11		
Northern	7	8	3	2		
Central	27	27	28	31		
Western	35	34	26	23		
Southern	24	25	32	33		
3 - 5 years	2	2	4	6		
6 - 8 years	4	2 3	7	5		
9 - 13 years	30	31	39	36		
14 - 23 years	37	41	23	29		
24 yrs & over	27	23	27	24		
2 1 y13 G 0VC1	21					
Areas		Seedless	Grapefruit			
	Wh	Seedless ite	Grapefruit Co	ored		
Areas		Seedless	Grapefruit			
Areas and age groups	Wh	Seedless ite 2002-03	Grapefruit Co	ored		
Areas and age groups	Wh 2001-02	Seedless ite 2002-03 Pe	Grapefruit Co 2001-02 rcent	ored 2002-03		
Areas and age groups Indian River District	Wh	Seedless ite 2002-03	Grapefruit Co 2001-02 rcent	ored 2002-03		
Areas and age groups Indian River District Northern	Wh 2001-02	Seedless ite 2002-03 Per	Grapefruit	ored 2002-03 64 2		
Areas and age groups Indian River District Northern Central	72 2/ 11	Seedless ite 2002-03 Per 66 2/ 15	Constant	ored 2002-03 64 2 11		
Areas and age groups Indian River District Northern	Wh 2001-02	Seedless ite 2002-03 Per	Grapefruit	ored 2002-03 64 2		
Areas and age groups Indian River District Northern Central Western Southern	72 2/ 11 3 14	Seedless ite 2002-03 Per 66 2/ 15 4 15	7001-02 7001-0	64 2 11 4 19		
Areas and age groups Indian River District Northern Central Western Southern 3 - 5 years	72 2/ 11 3 14 2	Seedless ite 2002-03 Per 66 2/ 15 4 15	71 1 9 2 17 2	64 2 11 4 19		
Areas and age groups Indian River District Northern Central Western Southern 3 - 5 years 6 - 8 years	72 2/ 11 3 14 2 7	Seedless ite 2002-03 Per 66 2/ 15 4 15 1 7	71 1 9 2 5 5	64 2 11 4 19 2 2		
Areas and age groups Indian River District Northern Central Western Southern 3 - 5 years 6 - 8 years 9 - 13 years	72 2/ 11 3 14 2 7 28	Seedless ite 2002-03 Per 66 2/ 15 4 15 7 29	71 1 9 2 17 2 5 39	64 2002-03 64 2 11 4 19 2 2 35		
Areas and age groups Indian River District Northern Central Western Southern 3 - 5 years 6 - 8 years	72 2/ 11 3 14 2 7	Seedless ite 2002-03 Per 66 2/ 15 4 15 1 7	71 1 9 2 5 5	64 2 11 4 19 2 2		

¹⁷ Distribution of fruit population in September as determined by multiplying average fruit per tree from the Limb Count Survey by bearing age trees. ²⁷ Less than one percent.



Unadjusted Maturity Tests: Average of regular bloom fruit from sample groves, 2001-02 and 2002-03 seasons

			<u> </u>	00 1-02 and	2002-03 36	asulis				
Fruit type	Aci	d	Soli	ds	Ra	tio	Unfinishe	ed juice	Soli	ds
(No. groves)	ACI	u	(Bri	x)	Na	liO	per l	box	per l	oox
` test date ´	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
	Perc	ent	Perc	ent		1	Pour	nds	Poul	nds
					ınadjusted a	and not com	parable to p	lant test res	sults.	
ORANGES:			•		,					
Early (120-120)										
Sep 1	1.37	1.29	9.64	9.41	7.22	7.46	43.16	45.30	4.16	4.26
Oct 1	0.96	0.89	9.81	9.82	10.40	11.41	48.92	51.79	4.80	5.08
Mid (55-55)										
Sep 1	1.58	1.42	9.37	9.03	6.03	6.46	42.87	45.90	4.02	4.14
Oct 1	1.17	1.01	9.56	9.58	8.39	9.68	49.75	52.84	4.76	5.06
Late (150-150)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sep 1										
Oct 1	2.19	2.04	8.87	8.70	4.11	4.34	47.72	48.96	4.23	4.26
GRAPEFRUIT:										
White Seedless (49-47										
Sep 1	1.66	1.56	9.81	9.67	5.93	6.23	33.90	34.78	3.33	3.36
Oct 1	1.45	1.42	9.73	9.89	6.71	7.00	38.83	37.87	3.78	3.74
Colored Seedless (49-	-46)									
Sep 1	1.64	1.55	10.03	10.19	6.12	6.60	34.69	36.03	3.48	3.68
Oct 1	1.43	1.34	10.10	10.41	7.09	7.80	39.91	39.28	4.04	4.09

NOTICE: All samples were run through an FMC 091 machine using mechanical pressure only. This machine utilizes a .040 short strainer and standard 5/8-inch orifice tube. The beam settings are also identical to past tests and no restrictors are used.

Unadjusted Maturity Tests: Averages of regular bloom fruit

Fruit type Groves sampled Acid Solids (Brix) Ratio Unfinished juice per box Solids per box ORANGES: Number Percent Percent Pounds Pounds Early 1994 120 0.93 9.53 10.49 49.78 4.74 1995 120 1.03 9.30 9.25 50.50 4.70 1996 120 1.14 9.85 8.84 48.14 4.74 1997 120 0.99 9.80 10.17 47.27 4.63 1998 120 1.14 9.38 8.34 47.88 4.49 1999 120 1.20 9.36 7.94 46.51 4.35 2000 120 1.10 9.85 9.13 48.63 4.78 2001 120 0.96 9.81 10.40 48.92 4.80 2002 120 0.89 9.82 11.41 51.79 5.08 Midseason 1994	from san
type sampled (Brix) Juice per box per box ORANGES: Pounds Pounds Pounds 1994 120 0.93 9.53 10.49 49.78 4.74 1995 120 1.03 9.30 9.25 50.50 4.70 1996 120 1.14 9.85 8.84 48.14 4.74 1997 120 0.99 9.80 10.17 47.27 4.63 1998 120 1.14 9.38 8.34 47.88 4.49 1999 120 1.20 9.36 7.94 46.51 4.35 2000 120 1.10 9.85 9.13 48.63 4.78 2001 120 0.96 9.81 10.40 48.92 4.80 2002 120 0.89 9.82 11.41 51.79 5.08 Midseason 1994 55 1.19 9.23 7.97 51.08 4.71	Fruit
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1998 120 1.14 9.38 8.34 47.88 4.49 1999 120 1.20 9.36 7.94 46.51 4.35 2000 120 1.10 9.85 9.13 48.63 4.78 2001 120 0.96 9.81 10.40 48.92 4.80 2002 120 0.89 9.82 11.41 51.79 5.08 Midseason 1994 55 1.19 9.23 7.97 51.08 4.71	1996
1999 120 1.20 9.36 7.94 46.51 4.35 2000 120 1.10 9.85 9.13 48.63 4.78 2001 120 0.96 9.81 10.40 48.92 4.80 2002 120 0.89 9.82 11.41 51.79 5.08 Midseason 1994 55 1.19 9.23 7.97 51.08 4.71	1997
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Midseason 1994 55 1.19 9.23 7.97 51.08 4.71	
1994 55 1.19 9.23 7.97 51.08 4.71	
	1995
1996 55 1.40 9.76 7.07 48.95 4.78	
1997 54 1.14 9.43 8.47 50.05 4.72	
1998 55 1.30 9.14 7.19 48.25 4.41	1998
1999 55 1.41 9.10 6.57 46.89 4.27	1999
2000 55 1.22 9.47 7.94 49.78 4.71	
2001 55 1.17 9.56 8.39 49.75 4.76	
2002 55 1.01 9.58 9.68 52.84 5.06	2002
Late	
1994 150 2.19 8.69 4.05 48.84 4.25	
1995 150 2.39 8.60 3.65 47.68 4.10	
1996 150 2.40 8.93 3.76 46.08 4.11	
1997 150 2.10 8.84 4.30 47.87 4.23	1997
1998 150 2.44 8.65 3.60 45.68 3.95	1998
1999 150 2.51 8.55 3.45 43.36 3.71	1999
2000 150 2.45 8.80 3.65 46.50 4.09	2000
2001 150 2.19 8.87 4.11 47.72 4.23	2001
<u>2002</u> 150 2.04 8.70 4.34 48.96 4.26	2002

MATURITY

These are the results of the second maturity tests of the 2002-03 season for all but the late oranges, which were tested for the first time. The samples tested are from groves from routes which cover all five major citrus producing areas.

Sample sizes have remained constant for the past several seasons. The grapefruit sample size was 100 at the start of this season, which included 50 samples each for the white and colored types. Three white and four colored grapefruit samples had been picked at the time of this survey. None of the 325 orange samples were harvested.

These samples were collected September 30 and October 1. They were tested in the Orlando test laboratory of the Florida Agricultural Statistics Service. Only regular bloom fruit was tested. There is very little June or off bloom this season.

Rainfall for June through September was considerably above normal in virtually all citrus producing counties. Some of the coastal and southern counties recorded several inches above average each month during the summer. Tropical Storms Edouard and Hanna, both in September, contributed additional moisture to this state's citrus groves.

These maturity tests are some the highest October 1 tests in the series. The pounds of unfinished juice and solids per box for all oranges are the highest in the nine-year series. The low percent acid along with the better than average Brix produced excellent early season ratios.

The fresh fruit packing houses have been shipping Navels, Ambersweet and Hamlin oranges, Fallglo tangerines, and white and colored grapefruit. The first of the early fruit shipped came from the southern citrus counties. Many crops, however, are now passing minimum maturity tests in most areas of the citrus belt.

Maturity test averages by areas, October 1, 2002

Fruit type	Groves sampled	Acid	Solids (Brix)	Ratio	Unfinished juice per box	Solids per box
	Number	Percent	Percent		Pounds	Pounds
ORANGES:						
Early						
Indian River Dist.	11	1.01	10.63	10.53	48.24	5.13
Other Areas	109	0.87	9.74	11.50	52.15	5.08
Midseason						
Indian River Dist.	12	1.03	9.67	9.45	51.98	5.02
Other Areas	43	1.01	9.55	9.75	53.08	5.07
Late						
Indian River Dist.	28	2.05	8.81	4.32	48.81	4.29
Other Areas	122	2.04	8.67	4.35	48.99	4.25
GRAPEFRUIT:						
White Seedless						
Indian River Dist.	36	1.45	10.03	6.94	37.67	3.77
Other Areas	11	1.33	9.46	7.19	38.53	3.65
Colored Seedless						
Indian River Dist.	38	1.34	10.33	7.78	39.14	4.05
Other Areas	8	1.38	10.80	7.92	39.90	4.30

ALL GRAPEFRUIT 42.0 MILLION BOXES

The forecast of grapefruit for certified utilization (including an allocation of 1.5 million boxes of gift fruit and local sales) is 42.0 million boxes. If realized, this will be 4.7 million or 10 percent less than last season's 46.7 million boxes harvested and the lowest amount since the 35.7 million boxes in the freeze affected 1989-90 season. This season's forecast is divided into 17.0 million boxes of white varieties and 25.0 million of colored varieties.

Grapefruit: 2001-02 production and a proration of the 2002-03 forecasts based on fruit populations, by production areas $^{1/}$

	20 a 211 11 ant p	op aa	, p a a a a a a a		
Production Area	200	1-02	2002-03		
1 Toddetion Area	White	Colored	White	Colored	
		1,000	boxes		
Indian River	12,200	19,200	11,200	16,000	
Southern	2,600	4,700	2,600	4,700	
Other	4,100	3,900	3,200	4,300	

^{1/}The possible differences between growing areas, concerning average fruit size, loss from droppage, and harvest patterns, can alter the prorated estimates.

At the request of the Citrus Crop Estimates Advisory Committee, in any season in which economic abandonment of a portion of a crop is anticipated, an estimate of that amount was requested. With an average utilization over the last five years of over 48 million boxes, no economic abandonment of this season's crop is anticipated. Changing conditions or assumptions during the season may warrant a re-evaluation of this projection.

Citrus production, October 1, 2002 forecasts by varieties and states, with comparisons

Crop and State		Forecast		
	1999-00	2000-01	2001-02	2002-03
		1,000	boxes	
Grapefruit:				
FLORIDA-All	53,400	46,000	46,700	42,000
White 1/	21,500	18,700	18,900	17,000
Colored	31,900	^{2/} 27,300	27,800	25,000
Texas	5,930	7,200	5,900	5,600
Arizona	450	250	160	100
California	7,200	6,300	6,000	6,200
Total Grapefruit	66,980	59,750	58,760	53,900
Lemons:				
California	19,000	22,600	19,000	21,000
Arizona	3,100	3,600	2,800	2,800
Total Lemons	22,100	26,200	21,800	23,800
Limes: Florida	600	250	150	3/
Temples: Florida	1,950	1,250	1,550	1,400
Tangelos: Florida	2,200	2,100	2,150	2,400
K-Early: Florida	110	40	30	3/
Tangerines:				
FLORIDA-All	7,000	5,600	6,600	5,200
Early 4/	4,350	3,550	4,350	3,100
Honey	2,650	2,050	2,250	2,100
California 5/	2,500	2,200	2,200	2,300
Arizona 5/	850	650	620	450
Total Tangerines	10,350	8,450	9,420	7,950

^{1/} Includes seedy. ^{2/} Excludes two million boxes of economic abandonment. ^{3/} No forecast. ^{4/} 1999-00 through 2001-02 -- Robinson, Fallglo, Sunburst, and Dancy; 2002-03 forecast -- Fallglo and Sunburst only. ^{5/} Includes tangelos.

Components used in the October forecast

Туре	Bearing trees	Fruit per tree	Percent droppage	Fruit per box
	(1,000)			
White Grapefruit 1/	3,784	398	9	81
Colored Grapefruit	6,352	387	12	86

^{1/} Seedless variety only.

This season's bearing tree numbers include trees planted in 1999 and earlier. Attrition rates of the last several years were used as a guide and applied to the tree numbers in the 2002 Commercial Citrus Inventory, released September 10. White grapefruit bearing tree numbers (including seedy grapefruit trees) are estimated at 3.944 million, down five percent from last season's 4.142 million. Average fruit per tree of the white seedless grapefruit is 398, down 25 percent from last season's 530. The droppage rate is anticipated to be near normal at about nine percent compared to last season's ten percent. Fruit sizes are extremely large, the largest in many seasons. It is anticipated to take only 81 pieces of fruit to make an equivalent box compared to 96 last season.

Colored grapefruit bearing trees are estimated at 6.352 million, down six percent from last season's 6.728. Average fruit per tree is down 26 percent from last season to 387. Average droppage at harvest is estimated to be slightly higher than last season at 12 percent. Current fruit sizes are very large and are expected to average 86 fruit per box at harvest compared to last season when it took 105 pieces to fill an 85 pound box.

ALL TANGERINES 5.2 MILLION BOXES

The forecast of all tangerines is 5.2 million boxes, down 21 percent from last season's 6.6 million harvested boxes. Record production of 7.0 million boxes was reached in the 1999-00 season. The forecast is divided into **early** varieties at 3.1 million boxes and **honey** tangerines at 2.1 million. Since the declassification of Robinson and Dancy tangerines by the Florida Citrus Commission, the early portion forecast and estimates are comprised of **Fallglo** and **Sunburst** only.

Fallglo bearing trees are estimated at 435,000 this season compared to last season's 460,000. Fruit per tree declined eight percent to 490 this season from 533. Average fruit size is the largest since the beginning of the series in 1993-94. It is estimated it will take only 213 fruit to make an average box compared to 240 last season. Droppage rates remain about normal at 16 percent. Harvest has started on this variety and will continue into early December.

Sunburst tangerines, which comprise the majority of the early category, continue to decline in tree numbers also. Down five percent this season to 1.534 million, limited replantings are not equaling attrition. Average fruit per tree is down over 37 percent this season to one of the lowest on record for this variety. As a result, the droppage rate is expected to be lower and is projected at eight percent compared to 12 percent last season. Average fruit size is large and a box at harvest is expected to contain 286 fruit compared to last season's 332. Volume harvest will begin early this season because of the advanced maturity levels.

The **Honey** tangerine forecast at 2.1 million boxes is seven percent less than the 2.25 million box harvest last season and 21 percent less than harvested in the 1999-00 season. Bearing tree numbers are down only slightly from last season and average fruit per tree is slightly higher. Average fruit size is expected to be slightly smaller than last season's relatively large size with droppage rates near normal at 40 percent.

FORECAST PROCEDURES FOR THE 2002-03 SEASON

All citrus forecasts except seedy grapefruit are based on actual fruit counts and measurements. These objective count methods utilize: (1) the bearing age tree population provided from the latest aerial photography with field verifications, (2) the average fruit per tree obtained from the fruit count survey using randomly selected trees and limbs, and (3) the fruit measurement and fruit drop count surveys to determine fruit sizes and loss from fruit droppage.

The latest Commercial Citrus Inventory is the base used to determine forecast tree numbers for this season. All trees planted in 1999 and earlier are included. An attrition factor by age and area was applied to these base numbers to account for tree losses since the inventory period.

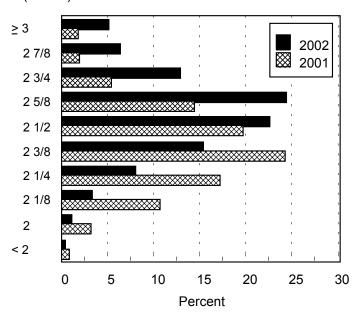
The same unbiased fruit count procedures were used as in all of the past 45 seasons. These include drawing the sample with known probabilities from the Commercial Citrus Inventory based on analyses of the variability in fruit per tree. Using random path procedures, count limbs on sample trees are preselected to improve accuracy. Fruit on these limbs are counted in the mid-July to mid-September period.

Fruit size surveys were conducted in August and September. The fruit loss surveys (drop count) were begun in August. These surveys, along with historical records, were used to project the fruit size at harvest and the fruit population that is expected to remain on trees at harvest.

The chart below describes the relationship of the September 2002 early and midseason orange (excluding Navels) fruit size measurements with those taken in September 2001. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest values.

Fruit Size: Early and midseason oranges (excluding Navels) size frequency by diameter from September measurements.

Diameter (Inches)



Size frequency distributions developed from the September size survey are shown in the following table. The distributions are by percent of fruit falling within the size range of each 4/5-bushel container. These frequency distributions relate to fruit from regular bloom and exclude summer bloom in all years.

Florida Citrus: Size frequency distributions from September measurements

Irom September	measureme	#IIIS	
Type of fruit and size	2000	2001	2002
in 4/5-bushel containers			
		Percent -	
Early and midseason oranges:			
(excluding Navels)			
64 and larger	0.1	0.6	1.1
80	0.6	2.1	6.8
100	6.4	12.0	26.4
125	25.3	28.9	37.1
163 and smaller	67.6	56.4	28.6
Navel oranges:			
64 and larger	14.4	25.0	31.4
80	30.9	35.2	37.9
100	33.2	26.9	22.7
125	15.1	8.8	6.8
163 and smaller	6.4	4.1	1.2
Valencia oranges:	0.1		1.2
64 and larger	0.0	0.2	1.2
80	0.5	2.3	8.5
100	5.9	13.8	31.5
125	26.3	29.5	35.4
163 and smaller	67.3	54.2	23.4
White seedless grapefruit:	07.3	34.2	23.4
	2.4	2.0	10.0
32 and larger	2.4	2.8	10.0
36	5.0	5.9	15.0
40	8.4	10.7	22.6
48	15.7	19.2	20.4
56	14.2	16.6	12.8
63 and smaller	54.3	44.8	19.2
Colored seedless grapefruit:			
32 and larger	1.0	2.3	8.2
36	2.8	4.3	12.5
40	6.2	10.3	20.2
48	13.4	16.4	20.3
56	14.4	16.2	12.9
63 and smaller	62.2	50.5	25.9
Fallglo tangerines:			
80 and larger	20.4	15.4	41.1
100	43.6	40.4	25.6
120	25.7	25.4	17.2
176	3.2	7.9	7.2
210 and smaller	7.1	10.9	8.9
Sunburst tangerines:			
100 and larger	1.8	2.1	15.0
120	8.1	7.5	25.3
176	9.9	7.5	19.7
210 and smaller	80.2	82.9	40.0
Tangelos:	-	-	
80 and larger	0.3	4.1	8.5
100	5.8	13.2	23.8
120	19.4	27.9	31.9
156 and smaller	74.5	54.8	35.8
	. 1.0	0 1.0	55.5