# Florida Citrus Outlook 1999-2000 Season 

## October 27, 1999

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# FLORIDA CITRUS OUTLOOK 1999-2000 SEASON 

Presented to:<br>THE FLORIDA CITRUS COMMISSION MARKET AND ECONOMIC RESEARCH COMMITTEE

## By:

THE ECONOMIC AND MARKET RESEARCH DEPARTMENT FLORIDA DEPARTMENT OF CITRUS

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EMRD Working Papers are generally speeches and research reports to the Florida Citrus Commission and other industry organizations. The content focuses on research results and industry implications. Technical details of the analytical models are presented in other professional and EMRD publication outlets.

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*     *         * IMPORTANT WEATHER NOTE * * *

On Saturday, October 16, 1999, while this report was being written, the southern and eastern citrus growing regions of Florida fell in the path of Hurricane Irene.

This Category 1 hurricane caused immediate fruit droppage in the groves through which it passed. Initial observations suggest fruit loss of $5 \%$ to $15 \%$ in those groves.

The USDA is conducting an assessment of Florida's citrus losses from Hurricane Irene.

Since the USDA assessment is still underway, fruit losses from this weather calamity have not been factored into this outlook.

When the USDA issues its damage assessment, a revised 1999-2000 Florida Citrus Outlook will be made available.

# Florida Citrus Outlook: The 1999-2000 Season 

| Florida Citrus Production | Up 12.4\% | 242.2 MM to 272.2 MM Boxes |
| :--- | :--- | :--- |
| Total On-Tree Gross Revenue | Up 6.7\% | $\mathbf{\$ 1 , 1 4 1 . 8} \mathbf{~ M M ~ t o ~} \mathbf{\$ 1 , 2 1 7 . 8} \mathbf{~ M M}$ |

## Prefatory Comments: "WARRANTED OPTIMISM"

The 1999-2000 Florida citrus season begins with much warranted optimism. Orange growers had the best financial performance of the decade last season. It is conceivable that they will see comparable or superior earnings in the season ahead. Grapefruit growers had not been able to recoup their citricultural costs for several years-until last year's turn around. The next season could well see a continuation of improved conditions. Specialty citrus growers had perhaps their best season ever last year. They too are poised for a good year.

On the supply side, Florida orange growers benefitted from more manageable stocks of orange juice in the Americas: Florida harvested about three-quarter's as many oranges in 1998-99 than in the record-harvest year which preceded it. Likewise, São Paulo-the principal orangegrowing state in Brazil—harvested about four-fifth's the number of oranges of its preceding crop, which was also a record breaker.

On the demand side, Florida orange growers benefitted from strong economic and marketing considerations. Consumers are able to demand more and better citrus products as a result of the longest economic prosperity in US history. The proliferation of product offerings, including calciumfortified orange juice, struck a respondent chord with consumers. Successful health-oriented marketing programs further stimulated demand.

Demand has never been greater for not-from-concentrate (NFC) orange juice. Since most of this product is produced in Florida, that bodes especially well for Florida orange growers.

After three years of having to abandon grapefruit, to minimize financial losses, grapefruit growers found greatly improved market conditions. In part because of the California freeze of December 1998, FOB's on Florida's fresh domestic sales were noticeably better. In spite of the financial chaos in Asia, export sales volumes actually exceeded those of the prior year.

The combination of reduced grapefruit juice availability combined with better grapefruit product offerings and effective marketing led to a major reduction of grapefruit juice inventories. Correspondingly delivered-in processed grapefruit prices trebled from the beginning to the end of the 1998-99 season.

The 1999-2000 season will begin with perhaps less than 12 weeks of grapefruit-juice sales in inventory. At the beginning of the last season, these inventories were in excess of 20 weeks; two years ago they burgeoned at 32 weeks.

Strong demand for grapefruit and grapefruit juice is foreseen. All Asian export markets have seen economic betterment in the last year. The Yen-Dollar exchange rate has moved almost $25 \%$ to the favor of Japanese importers over the last 12 months.

On the fresh domestic side, the California freeze thinned out the availability of Valencias from that region in the late summer and early autumn. The cool and wet spring in the San Joaquin Valley—where $89 \%$ of the western navels are grown-retarded California's navel crop maturity by about one month.

Therefore, Florida fresh shippers are encountering less-than-usual competition from California in the pre-Thanksgiving market. This should have worked to the benefit of Florida's early-market
fresh citrus shippers. Unfortunately, in large part because of weather-related picking interruptions, these open-market conditions are not likely to be seized.

This is truly unfortunate because California will enter the market later than usual with a nearrecord navel crop. California's compacted shipping season could well create a congested fresh citrus market in the winter and spring.

Nevertheless, citrus growing regions everywhere will benefit from economic prosperity in North America and Europe as well as vastly improved economic conditions in Asia.

If the trends at the end of this millennium carry forward into the next millennium, growing numbers of consumers can be anticipated to trade up to perceived quality citrus products. Improvements in citrus product forms, delivery systems and market presence should enhance the profitability of Florida citrus.

Optimism is indeed warranted.

## Round-Orange Outlook (Exhibits 1-6)

| Production | Up 13.6\% | 185.7 MM to 211.0 MM Boxes |
| :--- | :--- | :--- |
| On-Tree Gross Revenue/Box | Down 7.4\% | $\$ 5.13$ to $\$ 4.75$ |
| Total On-Tree Gross Revenue | Up 5.1\% | $\$ 953.5$ to $\$ 1,002.2 \mathrm{MM}$ |

On October 8, 1999, the USDA issued its first Florida citrus crop estimate for the 1999-2000 season. The Florida orange forecast totaled 211 million (90-lb.) boxes: comprised of 5.4 million boxes of navels, 118.6 million boxes of early/midseason orange varieties and 87.0 million boxes of Valencias. That would be an increase of 25.3 million boxes over last year's orange harvest, which was the lightest since 1993-94.

Orange crops of that magnitude and composition should be quite manageable. As reflected in Exhibit 1, the FDOC forecast holds that the increase in harvested oranges will all go to juice processing.

Available juice yields per box (Exhibit 2) are anticipated to be 1.60 ( $42^{\circ}$ Brix) gallons or 6.46 gallons at single strength (SSE). Juice recovered is forecast at 6.34 gallons SSE per box. That would be about $2 \%$ lighter than last year's record yield of $1.63\left(42^{\circ}\right.$ Brix) gallons per box.

Should these assumed production, utilization and yield levels come to pass, Florida will produce about 1.3 billion (single strength) gallons of orange juice. In comparison, the only larger orange juice producing region, Brazil, is anticipated to generate between 1.6 and 1.7 billion (single strength) gallons. (Exhibit 3)

Brazil shipped 1.6 billion gallons in its last full season (July 1998 through June 1999). Trade sources anticipate Brazilian shipments exceeding 1.7 billion gallons in their current season. (Exhibit 4)

Last season, Florida-based juice processors moved in excess of 1.4 billion (single strength) gallons of orange juice. Assuming an increase in demand of $1.6 \%$, Florida citrus processors will need to import over 150 million (single strength) gallons of orange juice to keep carry-over inventory levels at 13 weeks of sales. That level of importation would roughly correspond to last season's usage of imported orange juice by Florida processors. (Exhibit 5)

Thus, the joint supply/demand balance of orange juice from Brazil and Florida would suggest relative price stability in worldwide markets. In turn, Florida orange growers are seen receiving similar delivered-in pricing to last season. To be precise, the season-average forecasted delivered-in values of navels, early/midseason varieties and Valencias on a pound-solid basis are: $\$ 0.85, \$ 0.95$ and $\$ 1.10$. In comparison last season they were $\$ 0.85, \$ 1.01$ and $\$ 1.05$, respectively.

In contrast, Florida fresh orange growers are anticipated to confront stiffer competition than last season. Production in California is slated to return to pre-freeze levels of 67 million (75-lb.) boxes. That would be an increase of some $76 \%$ over last year's California orange harvest. This should put mounting pressure on the structure of prices for table oranges. The forecasted seasonaverage FOB's per carton of navels, early/midseason varieties and Valencias are respectively $\$ 8.50$, $\$ 7.50$ and $\$ 6.50$. Last season they were $\$ 9.35, \$ 8.22$ and $\$ 8.70$.

The forecast assumes pick \& haul costs at $\$ 2.00$ per box; packing charges at $\$ 3.55$ per carton; and packinghouse elimination charges of $\$ 1.00$ per box.

Based on all these assumptions, the forecasted 1999-2000 season-average, on-tree gross revenue per box of Florida oranges is $\$ 4.75$. In comparison, last year the seasonal composite average was $\$ 5.13$. (Exhibit 6)

## Specialty Citrus Outlook (Exhibits 7-8)

| Production | Up 19.1\% | 9.38 MM to 11.17 MM Boxes |
| :--- | :--- | :--- |
| On-Tree Gross Revenue/Box | Down 20.6\% | $\$ 8.75$ to $\$ 6.95$ |
| Total On-Tree Gross Revenue | Down 5.4\% | $\$ 82.2$ to \$77.8 MM |

The USDA foresees the Florida tangerine crop at 6.4 million ( $95-\mathrm{lb}$.) boxes. That would be the second largest tangerine crop on record after the 6.7 million crop of the 1979-80 season.

In recent years, the market for Florida fresh tangerines has tended to be between 3 million and 4 million boxes (or 6 million to 8 million $42.5-\mathrm{lb}$. cartons). (Exhibit 7) The outlook holds that 19992000 will be at the higher end of that range.

It is foreseen that $60 \%$ of the tangerine crop will be packed for the table fruit market. In contrast $72 \%$ of last season's crop went fresh. (Exhibit 7)

Early tangerines, comprised of Dancy (2\%-), Fallglo (19\%+), Robinson (5\%-) and SunBurst varieties $(74 \%)$, are anticipated to have a combined production of 4.2 million boxes, an increase of 1.15 million boxes. The forecast holds that roughly one-quarter of that increase will be added to last year's fresh sales levels. The other three-quarters of the increase is envisioned to go to juice processing. (Exhibit 7)

Early tangerines will have the benefit of relatively little citrus competition prior to Thanksgiving. This will bode well for pricing. Considering this favorable sales climate, as well as the greater fruit availability, the forecasted composite FOB for all early variety tangerines stands at $\$ 12.00$ per carton. Last year that composite FOB was $\$ 13.51$ per carton.

Assuming pick and haul costs of $\$ 3.45$ per box, packing charges of $\$ 4.30$ per carton, (including the FDOC marketing assessments of $\$ 0.14$ per carton), the forecasted gross on-tree revenue is $\$ 11.95$ per box of early fresh-packed tangerines. Last year, those revenues were $\$ 13.05$ per box. (Exhibit 8)

As for processed tangerines, an elimination charge of $\$ 1.00$ per box is assumed. It is further assumed that field-run early tangerines will be picked and hauled for $\$ 3.25$ per box.

The forecast envisions that early tangerines will receive the same delivered-in juice prices as early/mid oranges or $\$ 0.95$ cents per pound solid. It is also assumed that test-house recovery will be 5.44 solids per box of early tangerines sent to processing.

Predicated on these assumptions, the forecasted on-tree gross revenue for early tangerines sent to juice processing is $\$ 1.32$ per box. (Exhibit 8)

Honey tangerines, which mature later in the season, are foreseen to have a more moderate increase in production: the USDA forecasted increase is 300,000 boxes from last season's 1.9 million 95-lb. boxes to 2.2 million boxes.

Because of envisioned congestion in the post-holidays' citrus market-when honey tangerines ship-the forecasted sale of honey tangerines is being placed at 1.35 million boxes ( 2.7 million 42.5lb. cartons), slightly under last year's sales accomplishments. Thus, the anticipated increased production is forecasted to all go for juice processing. (Exhibit 7)

Honey tangerines have commanded seasonal average FOB's within a range of $\$ 12.00$ to $\$ 19.00$ per carton in the 1990 's. Last year, the seasonal average was $\$ 16.94$ per carton. Because of greater anticipated competition, the forecasted seasonal average FOB for honey tangerines is being placed at $\$ 15.00$ per carton.

Cost assumptions in the forecast for harvesting and packinghouse charges for honey tangerines are the same as those for early tangerines (see above.) Combining those cost assumptions with the $\$ 15.00$ FOB revenue forecast renders a gross on-tree revenue figure of $\$ 17.95$ per box of honey tangerines. Last season that figure was $\$ 19.65$ per box. (Exhibit 8)

It is forecast that slightly more than four-fifths of the honey tangerines sent to juice processing will be from packinghouse eliminations. Furthermore, it is forecast that delivered-in fruit pricing for honey tangerines will be comparable to that of Valencia oranges: $\$ 1.10$ per pound solid. Assuming test-house yields of 7.33 pound solids per box that renders a seasonal average gross on-tree revenue of $\$ 3.83$ per box of Honey tangerines destined for juice processing. That compares to $\$ 4.65$ last season. (Exhibit 8)

The USDA envisions fairly average sized crops of Temples and tangelos in the 1999-2000 season, (2.1 million and 2.6 million $95-\mathrm{lb}$. boxes respectively.) Roughly one-third of those crops are anticipated to be shipped fresh. (Exhibit 7)

Seasonal average FOB's for Temples and tangelos tend to range between $\$ 6.00$ and $\$ 9.00$ per carton. The forecast has FOB's for both of these varieties averaging $\$ 8.00$ per carton.

Pick and haul costs are assumed to be $\$ 2.00$ per box for Temples and $\$ 2.50$ per box for tangelos. Packing costs are forecast at $\$ 3.42$ per carton of Temples and $\$ 3.62$ per carton of tangelos. FDOC assessments are $\$ 0.14$ per carton for both varieties.

Given these FOB and cost assumptions, the forecast for on-tree gross revenue for fresh Temples is $\$ 6.90$ per box (versus $\$ 9.30$ last year) and $\$ 6.00$ per box of fresh tangelos (versus $\$ 7.40$ last year). (Exhibit 8)

Almost $80 \%$ of the Temples and tangelos destined for juicing are assumed to be field run. The forecast further assumes field-run, pick-and-haul costs of $\$ 1.90$ per box of Temples and $\$ 2.40$ per
box of tangelos. It further assumes test-house recovery of 6.37 solids per box of Temples and 5.40 solids per box of tangelos. Delivered-in pricing is forecast at $\$ 0.80$ per pound solid of Temples and $\$ 0.95$ per pound solid of tangelos. Based on these assumptions, on-tree gross revenues for processed Temples are forecasted at $\$ 2.95$ per box (versus $\$ 3.17$ last season); tangelos are forecasted at $\$ 2.49$ per box (versus $\$ 3.22$ last season.) (Exhibit 8)

## Grapefruit Outlook (Exhibits 9-13)

| Production | Up 6.2\% | 47.1 MM to 50.0 MM Boxes |
| :--- | :--- | :--- |
| On-Tree Gross Revenue/Box | Up 22.1\% | \$2.26 to \$2.76 |
| Total On-Tree Gross Revenue | Up 29.9\% | $\mathbf{\$ 1 0 6 . 1}$ to \$137.8 MM |

The USDA forecasts the first increase in Florida's grapefruit harvest since the record season of 1996-97. In its forecast, the USDA also noted that "nonregular" (or late) bloom was observed in more than $12 \%$ of all samples; whereas $2 \%$ tends to be the norm. Many Florida grapefruit groves are, therefore, anticipated to have fruit of unusually varying sizes.

The lack of size uniformity will work against high fresh fruit utilizations. Likewise, weather delays at the onset of the season also crimped the shipping of Florida's new grapefruit crop into fresh channels. Given these phenomena, only two-fifths of the grapefruit crop are envisioned to be sold as table fruit. The other three-fifths are seen as most likely candidates for the juice plants. (Exhibit 9)

Of the table fruit, two out of five cartons are predicted to be sold in the United States. Half of Florida's grapefruit exports are foreseen to arrive in Asian markets. The remainder will be exported to Europe and Canada. (Exhibit 10)

Assuming average juice yields, if this production/utilization scenario described above comes to pass, Florida's processed grapefruit will yield about 150 million gallons of juice. That would be about 10 million gallons over last year's crush. (Exhibit 11)

Last season, Florida's grapefruit juice sales surpassed production by some 30 million gallons. In accordance, inventories shrank by $44 \%$. It is anticipated that price rises at processor and trade levels will be utilized to prevent grapefruit-juice inventories from reaching dangerously low levels.

Even if movement is slowed by $5 \%$ in the upcoming season, inventories could conceivably decline by more than a quarter to less than nine weeks of sales. (Exhibit 12)

This, in turn, should bode well for processed grapefruit prices received by growers. The forecasted season-average, delivered-in pound-solids value is $\$ 0.77$. (Last year's value is estimated to have been $\$ 0.65$--although the final tally awaits the closing of participation pools in the months ahead.) On a varietal basis, white seedless grapefruit is estimated to receive $\$ 0.75$; while colored seedless and seedy are foreseen to fetch $\$ 0.80$ per pound solid delivered-in.

On a varietal basis, the USDA forecasts 20.5 million boxes of white seedless grapefruit production. It is envisioned that 15.7 million will be processed, with nine million of those forecasted being field run. Of the 29 million boxes of colored seedless grapefruit forecasted by the USDA, 13.7 million are anticipated to be processed into juice, with 4 million of those being field runs. It is forecast that all 500,000 boxes of seedy grapefruit will be field run to juice plants.

The forecast model assumes that field-run grapefruit can be picked and hauled for $\$ 1.90$ per box. It further assumes that pick and haul costs for packinghouse-destined grapefruit are $\$ 2.00$ per box and that elimination fees at the packinghouse are $\$ 1.00$ per box.

Given this set of assumptions, on-tree gross revenue for all processed Florida grapefruit are forecasted to be $\$ 1.19$ per box, which equates to about half the cost of growing a box of grapefruit. (Exhibit 13)

Domestic FOB's are envisioned to average $\$ 7.00$ per carton. (Last year the averages for Indian River grapefruit were $\$ 7.72$ per carton of white seedless and $\$ 7.61$ per carton of coloredseedless grapefruit.) It is further envisioned that FOB's for exported white-seedless grapefruit will average $\$ 9.50$ per carton and exported colored-seedless grapefruit will be $\$ 7.00$ per carton. Moreover, it is assumed that $85 \%$ of the whites and $44 \%$ of the colored grapefruit will be exported.

Finally, the forecast assumes packing costs will be $\$ 4.32$ per carton of white grapefruit and $\$ 3.87$ per carton of colored grapefruit, (including the FDOC assessment of $\$ 0.1625$ per carton).

Given this set of assumptions, on-tree composite gross revenue for Florida grapefruit sold in fresh-fruit channels are forecasted to be $\$ 5.07$ per box, which is roughly comparable to last year's performance. (Exhibit 13)

## EXHIBITS

## EXHIBIT 1 <br> Utilization of Florida Round Oranges

| Season | Volume |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | FCOJ | COJ | NonCertified | Other ${ }^{\text {a }}$ | TOTAL |
|  | -------------------- million 90-pound boxes ------------------------- |  |  |  |  |  |
| 1995-96 | 8.4 | 129.3 | 62.1 | 1.5 | 2.0 | 203.3 |
| 1996-97 | 9.3 | 147.9 | 65.7 | 1.4 | 1.9 | 226.2 |
| 1997-98 | 8.7 | 156.4 | 74.8 | 2.5 | 1.6 | 244.0 |
| 1998-99 | 8.6 | 93.6 | 80.1 | 2.2 | 1.2 | 185.7 |
| 1999-00f | 8.2 | 109.4 | 90.0 | 2.2 | 1.2 | 211.0 |

[^0]
## EXHIBIT 2

Comparative Utilization of Round Oranges, Brazil and Florida

| Season | Brazil ${ }^{\text {a }}$ |  |  |  | Florida |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Production | Utilization |  | FCOJ <br> Yield | Production | Utilization |  | Juice ${ }^{\text {b }}$ <br> Yield |
|  |  | Fresh | Processed |  |  | Fresh | Processed |  |
|  | -- - million 90-lb. boxes - - |  |  | $\begin{aligned} & \text { SSE } \\ & \text { - gallons - } \\ & \text { /box } \end{aligned}$ | - - - million 90-lb. boxes - - |  |  | SSE - gallons /box |
| 1995-96 | 405 | 135 | 270 | 5.60 | 203.3 | 10.0 | 193.3 | 6.16 |
| 1996-97 | 416 | 139 | 277 | 5.79 | 226.2 | 10.7 | 215.5 | 6.27 |
| 1997-98 | 465 | 135 | 330 | 5.87 | 244.0 | 11.2 | 232.8 | 6.27 |
| 1998-99 | 390 | 105 | 285 | 5.74 | 185.7 | 10.8 | 174.9 | 6.47 |
| 1999-00f | 433 | 148 | 285 | 5.78 | 211.0 | 10.4 | 200.6 | 6.34 |

[^1]
## EXHIBIT 3 <br> Comparative Orange-Juice Production, Brazil and Florida

| Season | Brazila $^{\mathrm{a}}$ <br> July - June | Florida $^{\text {b,c }}$ <br> December-November | TOTAL |
| :---: | :---: | :---: | :---: |
| $1995-96$ | $1,511.0$ | $1,213.3$ | $2,724.3$ |
| $1996-97$ | $1,604.3$ | $1,388.3$ | $2,992.6$ |
| $1997-98$ | $1,935.7$ | $1,486.8$ | $3,422.5$ |
| $1998-99$ | $1,634.9$ | $1,154.6$ | $2,789.5$ |
| $1999-00 \mathrm{e}$ | $1,648.3$ | $1,303.9$ | $2,952.2$ |

${ }^{\text {a }}$ Based on various reports by the Agricultural Attache, São Paulo, Brazil; and industry sources.
${ }^{\text {b }}$ Based on data reported by the Florida Citrus Processors Association.
${ }^{\text {c }}$ Juice yield times processed utilization (round oranges and specialty citrus).

## EXHIBIT 4 <br> Comparative Destination Markets for Orange Juice from Brazil and the United States

| Market | Brazil $^{\mathrm{a}}$(July-June) |  | United States (December-November) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1998-99e | 1999-00f | 1998-99e | 1999-00f |


| United States/NAFTA ${ }^{\text {b }}$ | 296.9 | 250.0 | 1,222.3 ${ }^{\text {c }}$ | 1,216.4 ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Canada |  |  | $48.6{ }^{\text {d, }}$ | $49.5{ }^{\text {d,e }}$ |
| Europe ${ }^{\text {f }}$ | 1,069.0 | 1,197.0 | $54.7{ }^{\text {de }}$ | $55.8{ }^{\text {d, }}$ |
| Japan/Asia ${ }^{\text {g }}$ | 131.5 | 146.0 | $21.6{ }^{\text {d, }}$ | $22.1{ }^{\text {de }}$ |
| Korea |  |  | $7.4{ }^{\text {d, e }}$ | $7.6^{\text {d, }}$ |
| Other | 99.2 | 111.9 | $17.7^{\text {de }}$ | $18.0{ }^{\text {d,e }}$ |


| TOTAL MOVEMENT | $\mathbf{1 , 5 9 6 . 6}$ | $\mathbf{1 , 7 4 6 . 9}$ | $\mathbf{1 , 3 7 2 . 3}$ | $\mathbf{1 , 3 6 9 . 4}$ |
| :--- | :--- | :--- | :--- | :--- |

${ }^{\text {a }} 1998$-99 movement based on Brazil exports reported by the ABECitrus; 1999-00 movement estimated. Data, except for the other category, reflect Port of Santos shipments only, which are expected to account for over $98 \%$ of total Brazilian export shipments in 1998-99. The other category includes other exports and domestic consumption.
${ }^{\mathrm{b}}$ United States for U.S. movement; NAFTA(U.S., Canada, and Mexico) for Brazil movement.
${ }^{\mathrm{c}}$ FDOC estimate of total U.S. orange-juice production less U.S. exports and inventory changes.
${ }^{\mathrm{d}}$ Exports based on U.S. Department of Commerce data.
${ }^{\text {e }}$ Includes transshipments.
${ }^{\text {f }}$ Brazil: European Union only; U.S: greater Europe.
${ }^{\text {T}}$ Japan for U.S. movement; Aisa for Brazil movement.

## Comparative Orange-Juice Inventories, Brazil and Florida

| Item | $B_{r a z i l}{ }^{\text {a }}$ <br> (July-June) |  | Florida ${ }^{\mathrm{b}}$(December-November) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1998-99 | 1999-00f | 1998-99 | 1999-00f |
|  | ---------------- - million SSE gallons ----------------- - - |  |  |  |
| Beginning Inventory | $328.0^{\text {c }}$ | $366.3^{\text {c }}$ | $507.3^{\text {d }}$ | $380.8{ }^{\text {d }}$ |
| Production | 1,634.9 | 1,648.3 | 1,154.6 | 1,303.9 |
| Imports ${ }^{\text {e }}$ | -- | -- | 155.0 | 150.0 |
| Availability | 1,962.9 | 2,014.6 | 1,816.9 | 1,834.7 |
| (Movement) | $(1,596.6)$ | $(1,704.9)$ | $(1,436.1)^{\text {f }}$ | $(1,458.8)^{\mathrm{f}}$ |
| Ending Inventory | $366.3{ }^{\text {c }}$ | $309.7^{\text {c }}$ | 380.8 ${ }^{\text {d }}$ | $375.9^{\text {d }}$ |

${ }^{\text {ab }}$ Based on data reported by the Agricultural Attache, São Paulo; and industry sources.
${ }^{\mathrm{b}}$ Based on data reported by Florida Citrus Processors Association.
${ }^{\text {c }}$ São Paulo stocks.
${ }^{\mathrm{d}}$ Includes carry-over Florida production, foreign imports and domestic receipts.
${ }^{\mathrm{e}}$ Foreign and domestic.
${ }^{\text {f }}$ Includes resale of imports unlike U.S. movement in Exhibit 4.

## EXHIBIT 6

On-Tree Per Box Gross Revenue for Florida Round Oranges by Variety

| Type of Fruit by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |

Early and Midseason (excluding Navels)

| $1995-96$ | 3.55 | 3.56 | 3.56 |
| :--- | :--- | ---: | :--- |
| Navels | 3.60 | 3.14 | 3.15 |
|  | $1996-97$ | 3.10 | 2.78 |
| $1997-98$ | 6.60 | 4.57 | 4.79 |
|  | $1999-99$ | 5.90 | 4.03 |
|  |  |  | 4.06 |
| $1995-96$ | 6.15 | 1.73 | 4.63 |
| $1996-97$ | 5.10 | .94 | 3.73 |
| $1997-98$ | 4.20 | 1.27 | 3.20 |
| $1998-99$ | 9.40 | 2.39 | 7.48 |
| $1999-00 f$ | 7.90 | 2.29 | 6.19 |

Continued . . . . .

## EXHIBIT 6 (Continued) <br> On-Tree Per Box Gross Revenue for Florida Round Oranges by Variety

| Type of Fruit <br> by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |

Valencias

| $1995-96$ | 6.45 | 5.53 | 5.57 |
| :---: | :---: | :---: | :---: |
| $1996-97$ | 4.70 | 4.04 | 4.07 |
| $1997-98$ | 4.20 | 4.90 | 4.88 |
| $1998-99$ | 9.40 | 5.46 | 5.71 |
| $1999-00 f$ | 3.90 | 5.69 | 5.60 |
| All Oranges |  |  |  |
| $1995-96$ | 5.46 | 4.35 | 4.40 |
| $1996-97$ | 4.57 | 3.49 | 3.54 |
| $1997-98$ | 3.85 | 3.68 | 3.69 |
| $1998-99$ | 8.77 | 4.91 | 5.13 |
| $1999-00 f$ | 5.78 | 4.70 | 4.75 |

[^2]
## EXHIBIT 7

Utilization of Florida Specialty Citrus by Variety

| Type of Fruit by Season | Production | Crop Utilization |  |
| :---: | :---: | :---: | :---: |
|  |  | Fresh | Processing |
|  |  | pound bo |  |
| Early Tangerines |  |  |  |
| 1995-96 | 2,900 | 2,025 | 875 |
| 1996-97 | 4,500 | 2,713 | 1,787 |
| 1997-98 | 3,200 | 2,060 | 1,140 |
| 1998-99 | 3,050 | 2,172 | 878 |
| 1999-00f | 4,200 | 2,475 | 1,725 |
| Honey Tangerines |  |  |  |
| 1995-96 | 1,600 | 1,119 | 481 |
| 1996-97 | 1,800 | 1,044 | 756 |
| 1997-98 | 2,000 | 1,368 | 632 |
| 1998-99 | 1,900 | 1,398 | 502 |
| 1999-00f | 2,200 | 1,350 | 850 |
| All Tangerines |  |  |  |
| 1995-96 | 4,500 | 3,144 | 1,356 |
| 1996-97 | 6,300 | 3,757 | 2,543 |
| 1997-98 | 5,200 | 3,428 | 1,772 |
| 1998-99 | 4,950 | 3,570 | 1,380 |
| 1999-00f | 6,400 | 3,825 | 2,575 |
|  |  |  | Continued |

## EXHIBIT 7 (Continued)

Utilization of Florida Specialty Citrus by Variety

| Type of Fruit by Season | Production | Crop Utilization |  |
| :---: | :---: | :---: | :---: |
|  |  | Fresh | Processing |
|  | -------- | -pound bo |  |
| Temples ${ }^{\text {a }}$ |  |  |  |
| 1995-96 | 2,150 | 693 | 1,457 |
| 1996-97 | 2,400 | 555 | 1,845 |
| 1997-98 | 2,250 | $\begin{array}{r}566 \\ 598 \\ \hline\end{array}$ | 1,684 1,202 |
| 1999-00f | 2,100 | 600 | 1,500 |
| Tangelos ${ }^{\text {a }}$ (10 ${ }^{\text {a }}$ |  |  |  |
| 1995-96 | 2,450 | 1,018 | 1,432 |
| 1997-98 | 2,850 | ,913 | 1,937 |
| 1998-99 | 2,550 | 838 | 1,712 |
| K-Early 1999-00f | 2,600 | 900 | 1,700 |
| K-Early ${ }_{\text {cer }}$ |  |  |  |
| 1996-97 | 150 | 57 | 93 |
| 1997-98 | 40 | 30 | 10 |
| 1998-99 | 80 | 24 | 56 |
| 1999-00f | 70 | 15 | 55 |
| All Specialty |  |  |  |
| 1996-97 | 12,800 | 5,401 | 7,399 |
| 1997-98 | 10,340 | 4,937 | 5,403 |
| 1998-99 | 9,380 | 5,030 | 4,350 |
| 1999-00f | 11,170 | 5,340 | 5,830 |

SOURCE: Florida Agricultural Statistics Service.
${ }^{\text {a }} 90$-pound boxes.

## EXHIBIT 8

On-Tree Per Box Gross Revenue for Florida Specialty Citrus by Variety

| Type of Fruit by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |
| Early Tangerines |  |  |  |
|  |  |  |  |
| 1995-96 | 14.85 | 1.29 | 10.76 |
| 1996-97 | 9.85 | . 86 | 6.28 |
| 1997-98 | 10.40 | . 07 | 6.72 |
| 1998-99 | 13.05 | 3.08 | 10.18 |
| 1999-00f | 11.95 | 1.32 | 7.58 |
| $\begin{array}{lll}\text { Honey Tangerines } & \\ \text { 1095-96 }\end{array}$ |  |  |  |
| 1995-96 | 20.25 | 3.33 | 15.16 |
| 1996-97 | 20.15 | 1.18 | 12.18 |
| 1997-98 | 15.70 | 1.90 | 11.34 |
| 1998-99 | 19.65 | 4.65 | 15.69 |
| 1999-00f All Tangerines | 17.95 | 3.83 | 12.49 |
| All Tangerines |  |  |  |
| 1996-97 | 12.75 | . 96 | 7.99 |
| 1997-98 | 12.50 | . 72 | 8.49 |
| 1998-99 | 15.65 | 3.65 | 12.30 |
| 1999-00f | 14.07 | 2.14 | 9.27 |

Continued. ....

## EXHIBIT 8 (Continued)

On-Tree Per Box Gross Revenue for Florida Specialty Citrus by Variety

| Type of Fruit <br> by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |
| Temples |  |  |  |
| Temples ${ }^{\text {1995-96 }}$ | 5.55 | 3.91 | 4.44 |
| 1996-97 | 7.00 | 2.08 | 3.22 |
| 1997-98 | 4.60 | 2.55 | 3.07 |
| 1998-99 | 9.30 | 3.17 | 5.21 |
| 1999-00f | 6.90 | 2.95 | 4.08 |
| Tangelos |  |  |  |
| 1995-96 | 5.35 4.05 | 1.50 | 3.63 2.19 |
| 1996-97 | 4.05 3.90 | 1.53 .60 | 2.19 1.66 |
| 1998-99 | 7.40 | 3.22 | 4.59 |
| 1999-00f | 6.00 | 2.49 | 3.70 |
| K-Early |  |  |  |
| 1995-96 | 3.85 | -. 40 | 1.40 |
| 1997-98 | -1.90 | . 40 | -1.33 |
| 1998-99 | 4.10 | 1.30 | 2.14 |
| 1999-00f | 5.00 | 1.23 | 2.04 |
| All Specialty 8 |  |  |  |
| $1995-96$ $1996-97$ | 12.68 | 2.74 1.45 | 8.02 5.22 |
| 1997-98 | 9.92 | 1.25 | 5.39 |
| 1998-99 | 13.45 | 3.32 | 8.75 |
| 1999-00f | 11.88 | 2.44 | 6.95 |

HISTORICAL SOURCE: Florida Agricultural Statistics Service.

## EXHIBIT 9 <br> Utilization of Florida Grapefruit

| Season | Volume |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | FCGJ | CGJ | NonCertified | Other ${ }^{\text {a }}$ | TOTAL <br> Utilized | Abandonment |
| ----------------------- million 85 - pound boxes -------------------------- |  |  |  |  |  |  |  |
| 1995-96 | 21.8 | 23.0 | 6.1 | 1.0 | . 5 | 52.4 | 3.0 |
| 1996-97 | 22.1 | 25.0 | 7.1 | 1.1 | . 5 | 55.8 | 6.0 |
| 1997-98 | 20.0 | 20.6 | 7.2 | 1.2 | . 6 | 49.6 | 6.0 |
| 1998-99 | 18.7 | 19.0 | 7.5 | 1.2 | . 7 | 47.1 | . 0 |
| 1999-00f | 19.0 | 21.1 | 8.3 | 1.2 | . 4 | 50.0 | . 0 |

${ }^{\mathrm{a}}$ Includes CSSGJ, blends and utilization by non-members of the Florida Citrus Processors Association.

## EXHIBIT 10

Destination Markets for Florida Fresh Grapefruit

${ }^{a}$ Includes some offshore exports not destined for Europe.
HISTORICAL SOURCE: Division of Fruit and Vegetable Inspection Service, Florida Department of Agriculture.

## EXHIBIT 11

Florida Grapefruit-Juice Yields and Production by Variety ${ }^{\text {a }}$

| Season | Production |  |  |  | Weighted Average Yield |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Seedy | Seedless |  | TOTAL |  |
|  |  | White | Colored |  |  |
|  |  | - milli | allons - |  | $\begin{gathered} \text { SSE } \\ \text { - gallon - } \\ \text { /box } \end{gathered}$ |
| 1995-96 | 5.0 | 83.4 | 53.5 | 141.9 | 4.81 |
| 1996-97 | 4.5 | 88.6 | 68.7 | 161.8 | 4.97 |
| 1997-98 | 3.1 | 64.5 | 68.1 | 135.6 | 4.78 |
| 1998-99 | 2.8 | 68.5 | 68.8 | 140.2 | 5.17 |
| 1999-00f | 2.5 | 79.2 | 69.0 | 150.7 | 5.06 |

${ }^{a}$ Florida Department of Citrus estimates.

## EXHIBIT 12

Florida Grapefruit-Juice Inventories, ${ }^{\text {a }}$ 1998-99e Versus 1999-00f

| Item | $1998-99 \mathrm{e}$ | $1999-00 \mathrm{f}$ |
| :---: | :---: | :---: |

--------- million SSE gallons ------- -

| Beginning Inventory | 67.7 | 37.9 |
| :--- | :---: | :---: |
| Production $^{\text {b }}$ | 140.2 | 150.7 |
| Availability | 207.9 | 188.6 |
| (Movement) | $(170.0)$ | $(161.0)$ |
| Ending Inventory | $\mathbf{3 7 . 9}$ | $\mathbf{2 7 . 6}$ |

${ }^{\text {a }}$ Aggregate FCGJ and CGJ.
${ }^{\mathrm{b}}$ Includes a small amount of domestic receipts of non-Florida product.

## EXHIBIT 13

On-Tree Per Box Gross Revenue for Florida Grapefruit by Variety

| Type of Fruit <br> by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |


| Seedy |  |  |  |
| :---: | :--- | ---: | ---: |
|  |  | a | 1.73 |
|  |  |  |  |
| $1995-96$ | a | .13 | 1.73 |
| $1996-97$ | a | .10 | .13 |
| $1997-98$ | a | 1.02 | .10 |
| $1998-99$ | a | 1.92 | 1.02 |
| 1999-00f |  |  | 1.92 |
| White Seedless | 5.88 | .88 | 2.14 |
| $1995-96$ | 5.23 | -.18 | 1.12 |
| $1996-97$ | 5.38 | -.65 | .93 |
| $1997-98$ | 6.80 | .36 | 2.01 |
| $1998-99$ | 7.63 | 1.21 | 2.73 |

Continued..... .

## EXHIBIT 13 (Continued) <br> On-Tree Per Box Gross Revenue for Florida Grapefruit by Variety

| Type of Fruit <br> by Season | Method of Sale |  |  |
| :---: | :---: | :---: | :---: |
|  | Fresh | Processing | All |
| Colored Seedless | ------------- dollars per box---------------- |  |  |
| $1995-96$ |  |  |  |
| $1996-97$ | 2.96 | -.06 | 1.77 |
| $1997-98$ | 3.26 | .20 | 1.91 |
| $1998-99$ | 2.85 | -.05 | 1.50 |
| $1999-00 f$ | 4.52 | .02 | 2.43 |
| All Grapefruit | 4.26 | 1.14 | 2.79 |
| $1995-96$ |  |  |  |
| $1996-97$ | 3.71 | .51 | 1.93 |
| $1997-98$ | 3.42 | -.33 | 1.55 |
| $1998-99$ | 5.04 | .21 | 1.27 |
| $1999-00 f$ | 5.07 | 1.19 | 2.26 |

${ }^{\text {a }}$ Fresh sales negligible.
HISTORICAL SOURCE: Florida Agricultural Statistics Service.

## EXHIBIT 14

On-Tree Gross Revenue for Florida Citrus

| Variety | $1998-99 \mathrm{e}$ |  |  | 1999-00f |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Processing | TOTAL | Fresh | Processing |

ORANGES

| Early Midseason \& Navels | 51.2 | 481.5 | 532.7 | 43.0 | 472.2 | 515.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Valencias | 43.7 | 377.1 | 420.8 | 17.1 | 469.9 | 487.0 |
| All Oranges | $\mathbf{9 4 . 9}$ | $\mathbf{8 5 8 . 6}$ | $\mathbf{9 5 3 . 5}$ | $\mathbf{6 0 . 1}$ | $\mathbf{9 4 2 . 1}$ | $\mathbf{1 , 0 0 2 . 2}$ |

GRAPEFRUIT

| Seedy | .0 | .6 | .6 | .0 | 1.0 | 1.0 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| White Seedless | 30.9 | 4.8 | 35.7 | 37.0 | 18.9 | 55.9 |
| Colored Seedless | 69.5 | .3 | 69.8 | 65.4 | 15.5 | 80.9 |
| All Grapefruit | $\mathbf{1 0 0 . 4}$ | $\mathbf{5 . 7}$ | $\mathbf{1 0 6 . 1}$ | $\mathbf{1 0 2 . 4}$ | $\mathbf{3 5 . 4}$ | $\mathbf{1 3 7 . 8}$ |

Continued . . . . .

## EXHIBIT 14 (Continued)

## On-Tree Gross Revenue for Florida Citrus

| Variety | $1998-99 \mathrm{e}$ |  |  | 1999-00f |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Processing | TOTAL | Fresh | Processing | TOTAL |

SPECIALTY

| Early Tangerines | 28.4 | 2.7 | 31.1 | 29.6 | 2.3 | 31.9 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Honey Tangerines | 27.5 | 2.3 | 29.8 | 24.2 | 3.3 | 27.5 |
| All Tangerines | 55.9 | 5.0 | 60.9 | 53.8 | 5.6 | 59.4 |
| Temples | 5.6 | 3.8 | 9.4 | 4.2 | 4.4 | 8.6 |
| Tangelos | 6.2 | 5.5 | 11.7 | 5.4 | 4.2 | 9.6 |
| K-Early | .1 | .1 | .2 | .1 | .1 | .2 |
| All Specialty | $\mathbf{6 7 . 8}$ | $\mathbf{1 4 . 4}$ | $\mathbf{8 2 . 2}$ | $\mathbf{6 3 . 5}$ | $\mathbf{1 4 . 3}$ | $\mathbf{7 7 . 8}$ |
| TOTAL CITRUS | $\mathbf{2 6 3 . 1}$ | $\mathbf{8 7 8 . 7}$ | $\mathbf{1 , 1 4 1 . 8}$ | $\mathbf{2 2 6 . 0}$ | $\mathbf{9 9 1 . 8}$ | $\mathbf{1 , 2 1 7 . 8}$ |

HISTORICAL SOURCE: Florida Agricultural Statistics Service.


[^0]:    ${ }^{\text {a }}$ Includes CSSOJ, blends and utilization by non-members of the Florida Citrus Processors Association.

[^1]:    ${ }^{\text {a }}$ Based on various reports by the Agricultural Attache, São Paulo, Brazil; and industry sources.
    ${ }^{\mathrm{b}}$ Weighted by utilized round oranges and specialty citrus used in orange juice.

[^2]:    HISTORICAL SOURCE: Florida Agricultural Statistics Service.

