



Florida Citrus Season Retrospective: 2022-23 Season Final Season Outlook Update

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For release to:

Florida Citrus Commission
Economic and Market Research Committee

September 2023

Report no. EMRD-Outlook-2022/23-2

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. EMRD wishes to acknowledge industry leaders and stakeholders for providing useful insight and guidance into the key components of this report.

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Table of Contents

Introduction.....	1
Review of the 2021-22 Florida Citrus Season	2
Florida Orange Crop, Utilization and Movement	6
Florida.....	7
São Paulo	8
Mexico	8
Other U.S. Orange Production.....	9
Orange Juice Production and Availability	10
Florida Orange Juice Inventory and Movement	13
U.S. Orange Juice Supply, Disappearance and Retail Sales.....	15
Florida Fresh Orange Shipments, by Market.....	19
Florida Grapefruit Crop, Utilization and Movement	20
Florida Grapefruit Juice Inventory and Movement	20
U.S. Grapefruit Juice Supply, Disappearance, and Retail Sales.....	21
Fresh Grapefruit Shipments, by Market	24
Florida Specialty Crop and Utilization	25
Preliminary On-Tree Price Expectations	26
Summary: Implications for the Florida Grower.....	28
References.....	31
TABLES	32

List of Tables

Table 1. Utilization of Florida round oranges.....	33
Table 2. Utilization of world oranges – Selected Countries.	34
Table 3. Comparative utilization of round oranges, Florida, São Paulo, and Mexico.....	35
Table 4. Comparative orange juice yields, Florida, Brazil, and Mexico.	36
Table 5. Comparative orange juice production, Florida, São Paulo, and Mexico.	37
Table 6. Total Florida, Brazil, and Mexico OJ availability	38
Table 7. Brazil orange juice exports to select regions.	39
Table 8. U.S. Imports orange juice, by origin and type.	40
Table 9. Total Florida OJ availability, movement, and carryover for 2022-23, and actual for 2021-22.....	41
Table 10. Florida FCOJ availability, movement, and carryover for 2022-23, and actual for 2020-21 and 2021-22.	42
Table 11. Florida SSOJ availability, movement, and carryover for 2022-23, and actual for 2020-21 and 2021-22.	43
Table 12. U.S. orange juice supply and disappearance.....	44
Table 13. Florida processor OJ receipts, movement, and inventory, by type.....	45
Table 14. Retail orange juice sales.	46
Table 15. Share of 100% orange juice sold on promotion with reported price, by type	47
Table 16. Destination markets for Florida certified fresh orange shipments.....	48
Table 17. Utilization of Florida grapefruit.....	49
Table 18. Florida FCGJ and SSGF availability, movement, and carryover for 2020-21, and actual for 2021-22 through 2022-23.....	50
Table 19. U.S. grapefruit juice production, supply, and disappearance.	51
Table 20. Retail grapefruit juice sales.....	52
Table 21. Share of 100% grapefruit juice sold on promotion with reported price, by type.	53
Table 22. Destination markets for Florida certified fresh grapefruit.	54
Table 23. Utilization of Florida fresh specialty.	55
Table 24. Destination markets for Florida certified fresh specialty shipments.	56
Table 25. Projected average preliminary 2022-23 Florida fresh and processed on-tree prices....	57
Table 26. Preliminary On-tree returns for certified Florida citrus.....	58

Florida Citrus Outlook

2022-23 Season: September Update

Introduction

This report provides the final season update on the supply and demand projections of Florida citrus for the 2022-23 season based on the final USDA National Agricultural Statistics Service (USDA/NASS) citrus fruits summary (National Agricultural Statistics Service Florida Field Office, 2023a).¹ The initial USDA/NASS citrus production forecast was released on October 12, 2022 for the 2022-23 Florida citrus crop, by variety, and provided the baseline for earlier projections.² The October citrus forecast for the 2022-23 Florida citrus season was originally projected at 30.7 million boxes, which would have been a 32% decrease over the previous season of total Florida citrus production of oranges, grapefruit, and tangerines.

The preliminary production projection for the 2022-23 Florida citrus season, as of August 31, 2023, is 18.09 million boxes, an estimated 59.9% decline in total Florida citrus production of oranges, grapefruit, and tangerines. The preliminary production projection for total U.S. citrus production for the 2022-23 season indicates U.S. production reports an overall decrease of 10% with a total of 120.27 million boxes of oranges, grapefruit, lemons, and specialty citrus from California, Florida, Texas, and Arizona. Specifically, the September crop update projects 60.13 million boxes of oranges, 8.06 million boxes of grapefruit, and 24.18 million boxes of specialty tangerines and tangelos. The USDA preliminary production also reported California and Arizona produced 27.9 million boxes of lemons in the 2022-23 season.

¹The projections in this retrospective of the season are preliminary and based on available data through August 2023. All updates will be reflected in subsequent releases of the Florida Citrus Outlook.

² USDA National Agricultural Statistics Service, Florida Field Office. "Citrus October Forecast" https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/

Overall, on-tree revenues for oranges, grapefruit, and specialty citrus are projected to decline by 54.6% from an estimated \$467.1 million in the 2021-22 season to an estimated \$212.2 million in 2022-23 season.³

This report examines preliminary estimates for the overall utilization of oranges, grapefruit, and specialty citrus in accordance with industry trends from October 2022 through September 2023. Projections are also provided for Florida orange juice (OJ) and grapefruit juice (GJ) pack, movement, and ending inventory, along with estimates of U.S. consumption and retail sales of OJ and GJ. Price projections and preliminary on-tree price for Florida certified citrus are provided based on the final USDA/NASS citrus production estimates. The world orange juice outlook is also presented, given its strong bearing on Florida's OJ situation.

The projections contained in this report rely on assumptions based on recent industry trends in production, as well as trends in supply and demand for citrus products. Even a modest variation in these trends could substantially change the forecasted projections.

Review of the 2021-22 Florida Citrus Season

This section provides an overview of trends from the 2021-22 season that may impact the outlook for the 2022-23 season. In addition to the challenges faced by HLB, the most significant events affecting the Florida 2022-23 citrus season were weather-related. The initial event that inflicted damage on citrus crops was a two-day freeze in late January 2022, during which certain areas of Florida's groves endured prolonged periods of unusually low temperatures. The second significant event occurred when Hurricane Ian crossed through the majority of Florida's citrus producing regions on September 28, 2022. The full impact of Ian and the January 2022 freeze on the crop has yet to be fully assessed.

³ Note that the USDA/NASS preliminary estimate for processed on-tree prices may significantly underestimate the total on-tree returns for the season before adjustments are made for intermediate priced fruit.

At the onset of the 2021-22 season, the Florida citrus industry continued its efforts towards recovery following a decade of significant decline in production and citrus availability associated with the harmful impacts of HLB. The September 2022 production results for the 2021-22 Florida citrus season was 45.28 million boxes of Florida oranges, grapefruit, and tangerines, an estimated 22% decline in total citrus production compared to production in the 2020-21 season. The October 2021 citrus forecast originally projected 51.7 million boxes of oranges, grapefruit, and tangerines. Valencia fruit drop, along with the freeze in early 2022, contributed to the overall decline in availability for the season.

The season ending USDA-NASS September 2022 estimate for the Florida round orange crop in the 2021-22 season, released in September 2022, was 41.05 million boxes, a decline of 11.9 million boxes, or 22% less than the previous season's crop of 52.95 million boxes. The decline in production was associated with fewer bearing trees compared to the previous year along with fewer pieces of fruit per tree across all varieties. The drop rate declined for early-midseason oranges. The early-midseason orange fruit drop rate, excluding navels, was 39% compared to a 43% drop rate during the 2020-21 season. The drop rate for navel oranges was 28% compared to a 37% drop rate during the 2020-21 season and a 26% drop rate during the 2019-20 season. However, the drop rate for Valencia oranges was 51%, higher than the 41% drop rate during the 2020-21 season and a 30% drop rate during the 2019-20 season (National Agricultural Statistics Service Florida Field Office, 2023b).

A slightly smaller share of the overall Florida orange crop has been utilized by the processed sector in recent seasons when compared to historical data, with approximately 94% of total orange production made into either frozen concentrated orange juice (FCOJ) or single-strength orange juice (SSOJ), which is also referred to as not-from-concentrate (NFC) orange juice.

Typically, processed utilization had represented between 95-96% of total orange production. The share of round orange boxes directly utilized for SSOJ was estimated at 34.36 million boxes in 2021-22. This share was 89% of total processed utilization, the highest NFC share in Florida processor history. However, this still represented a decrease of 9.3 million boxes from last season. The quantity of orange boxes utilized in 2021-22 to produce FCOJ is estimated at 4.19 million boxes, a decrease of 1.6 million boxes over last season's utilization of 5.8 million boxes, representing a further decline in the share of boxes of oranges utilized to produce FCOJ.

World availability of orange juice was down compared to the previous season as the leading OJ producing suppliers (Brazil, Mexico, and the United States) faced weather-related and other production challenges. The decline in availability in recent seasons has created uncertainty around the supply needed for processors to meet market demand for both NFC and concentrate orange juice. Preliminary aggregate OJ production from the three leading suppliers in 2020-21 was projected at 2.43 billion SSE gallons, a decrease of 278.5 million SSE gallons (or down 10.3% from the previous season's 2.71 billion SSE gallons) largely due to the decline in juice yields and reduced orange production. Distribution of world orange juice production by the leading suppliers must also consider world demand for orange juice as the United States is only one of several markets. Even though there was a slight increase in the share of Brazil's exports to the United States in 2021-22, Brazil continued to be the leading source of orange juice in Europe. While the majority of U.S. orange juice production is consumed domestically, Brazil and Mexico orange juice production is primarily intended for the world market.

The USDA-NASS September 2022 estimate for the 2021-22 Florida grapefruit crop production was 3.33 million boxes, representing a decrease of 18.8% from the previous season's crop of 4.10 million boxes. Florida grapefruit production has declined by 92% since the 2003-04

season due to the harmful impacts of hurricanes and HLB. The September 2022 estimated production for the white grapefruit crop was 500,000 boxes, down 120,000 boxes from last season, and the red grapefruit crop was 2.83 million boxes, down 650,000 boxes from last season. Certified fresh grapefruit shipments were estimated to be 1.76 million boxes in 2021-22, down 6.8% from last season. Processed utilization is estimated at 1.53 million boxes, down 0.57 million boxes from last season. Utilization for frozen concentrated grapefruit juice (FCGJ) is estimated at 0.20 million boxes in 2020-21, down 0.11 million boxes from last season. Single-strength grapefruit juice, or NFC GJ, is projected to account for 1.33 million boxes, down 0.46 million boxes from last season.

Total movement of grapefruit juice from Florida-based processors in 2021-22 was estimated to reach 16.21 million SSE gallons, a slight decline over previous season, but an increase in domestic movement over the previous season with stable demand at retail for NFC GJ. The increased movement continued to alleviate some of the surplus NFC GJ inventories. By the end of the 2021-22 season, Florida's ending GJ inventory was estimated at 12.66 million SSE gallons (or 43 weeks of supply).

Florida's certified fresh grapefruit utilization accounted for approximately 52.8% of total grapefruit production during the 2021-22 season. Certified fresh grapefruit shipments in 2021-22 were 1.76 million boxes, representing a decline of 129,095 boxes compared to the previous season. The domestic share of these fresh shipments has increased in recent years from around 42% annually to a 74% share of all Florida fresh grapefruit shipments. As such, domestic fresh grapefruit shipments were up by 155,462 cartons with 2.60 million cartons. Florida exported 915,902 cartons of certified fresh grapefruit during the 2021-22 season, representing a decline of 413,655 cartons over last season. Florida fresh grapefruit was shipped to various export markets in Asia, Europe, and Canada.

The preliminary estimate for the 2021-22 Florida specialty citrus crop production is 750,000 boxes, a decrease of 140,000 boxes from last season. Despite higher freight on board (FOB) prices in recent years, specialty production has declined more than 90% since the 2009-10 season. Specialty citrus includes tangelos, Royal tangerines (formerly known as Temple oranges), early tangerine varieties, honey tangerines, Autumn Honey, Juicy Crunch, Orri, Roe, Tango, and other minor tangerine varieties. Florida certified shipments are estimated to be about 65% of the crop with 484,000 boxes (equivalent to 968,000 cartons) moving during the 2021-22 season, primarily to the domestic market.

Overall, packinghouse-door returns for Florida oranges, grapefruit, and specialty citrus were projected at an estimated \$671.9 million in the 2021-22 season, a decline of 16% compared to the previous year National Agricultural Statistics Service Florida Field Office, 2023b).

Florida Orange Crop, Utilization and Movement

This section provides an overview of world orange production and utilization trends based on the most recent information that may have an impact the Florida citrus industry outlook during the 2022-23 season. Table 2 provides estimates of the orange utilization and outlook of the world's leading suppliers of orange juice on the world market, namely Brazil, Mexico, and the United States. Total combined orange production in the United States, Brazil, and Mexico are expected to decline by 5.8% with the United States, Brazil, and Mexico expected to produce approximately a combined 568.7 million 90-lb equivalent boxes in the 2022-23 season.⁴

Specifically, the United States and Brazil produced 55.3 million and 410.6 million 90-lb equivalent boxes, respectively, while Mexico was estimated by the USDA Foreign Agricultural Service (USDA/FAS) to have produced a 102.9 million 90-lb equivalent boxes in the 2022-23

⁴ Includes domestic fresh use in each country.

season.⁵ The data suggests that approximately 64.0% of production in these countries would be utilized for processing, a projected 8.6% decline over last season. The remainder of this section looks specifically at utilization within each country.

Florida

The USDA/NASS September preliminary estimate for the 2022-23 Florida round orange crop is 15.8 million boxes, which would represent a decline of 61.5%, or equivalent to a loss of 25.3 million boxes compared to last season's crop of 41.05 million boxes. Table 1 reports Florida orange box utilization. The 2022-23 early and mid-season orange crop preliminary estimate, including Navel oranges, is 6.15 million boxes, down 12.1 million boxes (or a decline of 66.3%) from last season. The navel orange crop was reported at 240,000 boxes, representing 3.9% of the total early and mid-season orange crop estimate. The Valencia crop is reported to be 9.65 million boxes, a projected 57.7% decrease over last season's Valencia production of 22.8 million boxes.⁶

Approximately 90% of orange production was used on the processed market. The share of round orange boxes directly utilized for single-strength orange juice (SSOJ), which is used to make not-from-concentrate (NFC) orange juice, is estimated at 12.96 million boxes (or 90.6% of total processed utilization) in the 2022-23 season, a decrease of 21.4 million boxes from last season. The quantity of orange boxes utilized in 2022-23 to produce FCOJ is reported at 1.35 million boxes, a decrease of 2.84 million boxes over last season's utilization of 4.19 million boxes. Certified fresh orange shipments in 2021-22 are estimated at 1.45 million boxes, down 40.7% from the 2.45 million boxes shipped last season. Florida's processed orange utilization is estimated at 14.45 million boxes, a decrease of 62.5% over last season's utilization of 38.55 million boxes.

⁵ Sources: Florida Department of Citrus Processor database, Brazilian Association of Citrus Exporters (CitrusBR), and USDA/FAS Production, Supply and Distribution (PSD) Datasets for Mexico

⁶ One Florida orange box weighs 90-lb.

The total juice yield for Florida processed production is roughly estimated to be 4.71572 SSE gallons per box for the 2022-23 season based on Florida processor combined SSOJ and FCOJ juice yield and reported boxes. An overview of historical juice yields is reported in Table 4.

São Paulo

Brazil is the leading exporter of orange juice, with the vast majority of production reaching markets in Europe, North America, and Asia. Processed orange production in the State of São Paulo and the Minas Gerais citrus belt, where most of Brazil's oranges used for processing are grown, increased by approximately 18% compared to the previous season from 224.4 million 90-lb equivalent boxes to 265.3 million 90-lb equivalent boxes, an increase of 40.9 million boxes. The current estimates for the São Paulo orange crop, as reported by Fundecitrus, are found in Table 3. The juice yield for São Paulo production is roughly estimated to be 5.248 SSE gallons per box for the 2022-23 season, based on an evaluation of currently available production and movement data. An overview of historical juice yields is reported in Table 4.

Mexico

Mexico is the second leading exporter of orange juice, with the processed share and exports increasing incrementally in recent seasons in response to the decline in world orange juice supplies. Although a net exporter of orange juice, orange production in Mexico is primarily intended for consumption in the fresh, domestic market. However, favorable prices and supply shortages in the United States over the last decade continue to displace fresh production in favor of the processed export market. Between 80 to 83 percent of Mexican exports are destined for the U.S. market. The packout rate for fresh oranges has declined marginally each season, with supplies diverted to processed utilization. With processing occurring from October through April, the orange fruit processing period in Mexico overlaps Florida's. While most of the processed utilization goes into

FCOJ, with Mexico producing mainly Valencia varieties for processing, NFC production has increased incrementally each season.

Over the last four seasons, production has been inconsistent due to inclement weather and other unknown factors. Mexico's last favorable crop was during the 2018-19 season due to good weather and yields. Total supply for oranges during the 2018-19 season was 4.53 million metric tons (equivalent to approximately 111 million 90-lb boxes) (USDA/FAS, Feb 2019). Total supply for oranges in 2019-20, however, declined by more than half due to excessive heat. Mexico experienced extreme weather conditions again in 2021 which may have impacted the crop. Uncertainty surrounding Mexico's production persisted well into the 2022-23 season.

Without official estimates, this Outlook considers recent trends in production and reviews information from industry sources. Final estimates rely on USDA/FAS production, supply, and demand data and are to be considered approximations. Processed orange production in Mexico decreased by roughly 18% over the previous season from an approximated 52.7 million 90-lb equivalent boxes to 43.1 million 90-lb equivalent boxes, a reduction of 9.6 million boxes. The estimates for the Mexico orange crop are based on the most current data reported by USDA/FAS and are found in Table 3. The juice yield for Mexico production is roughly estimated to be 5.685 SSE gallons per box for the 2022-23 season and is based on an evaluation of currently available production and movement data provided by USDA/FAS. An overview of historical juice yields is reported in Table 4.

Other U.S. Orange Production

Other U.S. oranges come primarily from California and Texas with utilization primarily intended for fresh consumption. Typically, about 80-85% of California and Texas oranges are intended for the fresh market. However, in recent years, processed share has increased. During the

2018-19 season, California fresh utilization was estimated at 74% and Texas utilization was estimated at 43%, with the remainder going into processed. During the 2019-20 season, California fresh utilization rebounded to an 80% share with Texas fresh utilization hovering around a 74% share, with the remainder going into processed. During the 2021-22 season, California fresh utilization was estimated at 82% share with the share of Texas fresh orange utilization at 58%.

According to the USDA/NASS citrus production forecast for the 2022-23 season, California is expected to produce 36.5 million 80-lb boxes of non-Valencia type oranges and 6.7 million 80-lb boxes of Valencia oranges for a total of 43.2 million 80-lb boxes of oranges, an increase of 9.6% over the previous season. As many as 9.8 million 80-lb boxes are estimated to be processed into juice based on previous utilization rates. The USDA/NASS citrus production forecast for Texas orange production in the 2022-23 season is estimated to increase by 465% from 200,000 85-lb boxes to 1.13 million 85-lb boxes. The significant increase in production is attributed to a major freeze which impacted production in the previous season. The Texas crop share into processed utilization is projected at 288,000 85-lb boxes. This analysis estimates that as many as 9.0 million 90-lb Florida-equivalent boxes of California and Texas combined production may be used in processing of orange juice. The share of single-strength and concentrate is not reported by either state. This analysis projects that orange juice production may increase by approximately 33.4% from an estimated 30.0 million SSE gallons of orange juice in the 2021-22 season to 40 million SSE gallons in the 2022-23 season.

Orange Juice Production and Availability

This section describes orange juice (OJ) availability on the domestic market by evaluating world production, inventories, and movement. Orange juice production and availability are key measures in sustaining the demand for Florida citrus products over the long run. Table 5 provides

estimates for comparative juice production from Florida, São Paulo, and Mexico based on their respective production seasons. For the 2022-23 Florida season, total supply of orange juice on the world market is estimated to have remained relatively unchanged over the previous period with around 1.65 billion SSE gallons produced by the leading suppliers (Table 5). The increase in São Paulo's production appeared to offset losses in Florida and Mexico. Florida production is estimated to contribute 4.1% of orange juice to this total supply this season.

At the same time, global trade was down in accordance with the decline in supply. In addition, USDA/FAS reports global consumption will continue to decline due to the projected drop in world availability of orange juice. While the majority of orange juice supplying global demand is produced in Brazil, Mexico is also a leading supplier of orange juice to the U.S. market and has been the leading source of FCOJ imports by Florida processors in recent years. In recent seasons, both countries have emerged as competitive suppliers of NFC orange juice to the United States.

Comparisons of orange juice beginning inventories and production levels for Florida, Brazil, and Mexico are provided in Table 6. Aggregate OJ supplies from the three leading suppliers in 2022-23 is projected at 2.07 billion SSE gallons, a decrease of 381.3 million SSE gallons (or down 15.6% from last season's 2.45 billion SSE gallons) largely due to the decline in beginning inventories along with reduced juice yields and orange production in Florida and Mexico. World orange juice production must also consider world demand for orange juice stocks as the United States is only one market for the leading suppliers. While the vast majority of U.S. orange juice production is consumed domestically, Brazil and Mexico orange juice production is primarily intended for the world market. The share among Brazil and Mexico export markets for orange juice are reported in Tables 7 and 8, respectively.

Based on Brazilian Department of Foreign Trade (SECEX) data, an estimated 1.36 billion SSE gallons of OJ were exported from Brazil in 2022-23, down 3.4% from the 1.41 billion SSE gallons exported in 2021-22. Most of Brazil's orange juice exports are bound for Europe, with shipments to Europe during the 2022-23 season at an estimated 716.4 million SSE gallons (and representing approximately 53% of all exports), an estimated 19.4% decline over the previous season. The majority of Brazil's exports to Europe are frozen concentrate, representing 74% of the total in 2022-23. However, NFC exports have been on the rise each season. A portion of Brazil's OJ sent to Europe may be re-exported to other markets. Brazil's OJ exports to East Asia were also down by 10.3% with 147.4 million SSE gallons. Brazil's exports to North American (USMCA) countries were up considerably by 57% with 444.4 million SSE gallons compared to 283.1 million SSE gallons the previous season, intended primarily for the U.S. market. A declining share, approximately 44%, of these exports in the 2022-23 season were frozen concentrate, used to make reconstituted, shelf stable, and frozen orange juice; signaling a rise in the NFC export market to USMCA.⁷

Based on U.S. Customs import data, an estimated 240.6 million SSE gallons of OJ were imported into the U.S. during the 2022-23 season through August 2023, up 33% from the 180.6 million SSE gallons imported during the entire 2021-22 season. A majority of Mexico's orange juice exports are bound for the United States, with reported imports at about 98.6 million gallons through August 2023, an estimated 40% decrease over the previous season. A review of U.S. orange juice imports by type of juice and origin are reported in Table 8 of this report.

⁷ FDOC-EMRD July 2023 Economic Indicators Report

Florida Orange Juice Inventory and Movement

Both demand-side and supply-side factors affecting orange juice availability are analyzed in this section. The 2022-23 Florida citrus season experienced further declines in orange production which can be attributed to weather-related events in 2022. Concurrently, consumer demand for orange juice outpaced juice receipts from the Florida crop and imports during the previous season, ensuring that existing inventories would be needed despite record high inflation globally. In addition, the Florida OJ situation continues to be hindered by the reduced production levels largely associated with the spread of Huanglongbing (HLB, also known as citrus greening).

Current estimates for the Florida OJ situation (October-September season) are shown in Table 9. Florida's OJ imports are based on aggregate Florida-Brazil-Mexico OJ availability, and adjusted for Florida processor trends. Three scenarios for 2022-23 are provided, varying with respect to Florida processor imports.

The 2021-22 Florida citrus season concluded with a year-over-year reduction in SSOJ and FCOJ inventories from the previous season. Combined Florida OJ ending inventory for the 2021-22 season is 213.0 million SSE gallons or 16.8 weeks of supply, compared to 28.5 weeks in the previous 2020-21 season. Adding the 2021-22 ending inventory to the 2022-23 estimate of Florida OJ production of 67.5 million SSE gallons, plus estimated imports and other adjustments totaling 480.5 million SSE gallons, Florida's OJ availability in 2022-23 (October 2021 through September 2022) is estimated at 760.9 million SSE gallons, down 130.3 million SSE gallons (or 14.6%) from last season's level. Total movement in the 2022-23 season is projected to decline by 109.8 million SSE gallons (or 16.2%) to 568.5 million SSE gallons from last season. By the end of the 2022-23 season, Florida's OJ ending inventory is estimated to decline to 192.4 million SSE gallons (or 17.6 weeks of supply). Import quantities will most likely be influenced by actual production,

movement, and availability from non-Florida sources observed during the remainder of 2022-23 season. Holding all trends constant and considering alternate import scenarios where OJ imports are 10% higher and 10% lower than discussed in the previous paragraph, ending inventories would range from 148.4 million SSE gallons (13.6 weeks supply) to 236.4 million SSE gallons (21.6 weeks supply). Estimates of Florida's inventory, production, and movement levels for FCOJ and NFC, underlying the total OJ estimates in Table 9, are shown in Table 10 and Table 11. Final projections for the 2022-23 season will be reflected in the 2023-24 Florida Citrus outlook report released in October 2023.

Approximately 9.4% of Florida processed orange utilization was processed as FCOJ during the 2022-23 season. Beginning Florida processor inventories of FCOJ for the 2022-23 season totaled 122.2 million SSE gallons. Florida processor FCOJ production was nearly 6.0 million SSE gallons based on utilization of approximately 1.35 million boxes of round oranges and an average FCOJ juice yield of 4.42 gallons per box in 2022-23 season. Imports of FCOJ, used to make Recon, shelf stable, and frozen orange juice, are projected to increase by 2.5% to 189.9 million SSE gallons by the end of September 2023. Total overall FCOJ availability is projected to decline by 25.1% when compared to the 2021-22 season. Total movement is projected to decline by at least 21.4% as a result of supply constraints. Based on the estimated utilization, receipts, and movement trends, FCOJ ending inventories are projected to decrease by the end of the season to approximately 79.5 million SSE gallons leaving about 16.7 weeks of supply.

Approximately 90.6% of Florida processed orange utilization during the 2022-23 season was processed as SSOJ, which is used for NFC orange juice. At the onset of the 2022-23 season, beginning Florida processor inventories of SSOJ were 90.8 million SSE gallons (13.7 weeks supply), a decrease of 25.0% when compared to the previous season. Florida processors produced

approximately 61.5 million SSE gallons of SSOJ based on the utilization of 12.96 million boxes of round oranges with an average juice yield of 4.75 SSE gallons per box, a decrease in juice production of 63.6% compared to the pack last season. Imports and domestic receipts of SSOJ are projected to increase by at least 98.1% to 242.8 million SSE gallons. Total overall SSOJ availability is projected to decline by 0.3% when compared to the 2021-22 season. Total movement, including EVAP into Recon, is projected to decline by at least 6.8% with a majority of SSOJ consumed through retail channels. Based on the estimated utilization, receipts, and movement trends, SSOJ ending inventories are projected to increase by the end of the season to approximately 108.0 million SSE gallons (or 18.3 weeks of supply).

U.S. Orange Juice Supply, Disappearance and Retail Sales

Disappearance is used in this analysis to discuss orange juice availability to meet demand. Presumed consumption is a rough measure of market performance; reflecting orange juice movement in which the disappearance of orange juice from measurable data is calculated as the sum of: 1) beginning U.S. inventory, 2) Florida and other U.S. production, and 3) U.S. imports minus: 1) U.S. exports, and 2) ending U.S. inventory. Preliminary estimates of total U.S. OJ disappearance are projected at 676.4 million SSE gallons for the 2022-23 season, a projected decline of 10.3% from an estimated 754.1 million SSE gallons consumed in the previous season (Table 12). The projected reduction in consumption reflects both a contraction in supply on the domestic market and a reduction in private label orange juice at retail when compared to the 2021-22 season. Total U.S. OJ production is estimated at 107.3 million SSE gallons based on the preliminary USDA estimated for the orange crop in Florida, California, and Texas (National Agricultural Statistics Service Florida Field Office, 2023a). Total U.S. OJ imports are projected at 573.6 million SSE gallons, a projected increase of 30.2% over the previous season. The projected

increase in total U.S. imports may reflect the shortages in Florida's production following the tumultuous hurricane season in 2022. U.S. exports are projected at 30.4 million SSE gallons, a 27.9% decrease over last season. Per capita consumption is estimated at 2.02 gallons.

By comparison, Florida processor receipts, movement, and net change in orange juice inventory are reported in Table 13. Net from Florida fruit refers to the orange juice production from Florida-sourced oranges in each season, which is compared to receipts of 100% orange juice from imported sources, domestic sources, and non-reporting Florida facilities. Movement is reported as domestic packaged and bulk movement as well as exports. During the 2022-23 Florida citrus season, Florida orange production is projected to account for 18% of SSOJ and 3% of FCOJ receipts by processors, respectively. Specifically, Florida processors are expected to receive 61.5 million gallons of SSOJ from Florida production and 283.5 million gallons from other sources. Florida processors are expected to receive 6.9 million gallons of FCOJ from Florida's orange crop with a remaining 198.5 million gallons from other sources. The majority of SSOJ movement from Florida processors is packaged, whereas the majority of FCOJ movement occurs as bulk movement for packaging out of state. It is estimated that between 63-68% of orange juice from Florida movement is consumed through retail channels with the remainder consumed as foodservice and institutional demand.

The Nielsen Topline Report provides more exact measures but with an abridged market coverage across all retailers. The Florida Department of Citrus (FDOC) purchases Nielsen retail outlet data for OJ sales in grocery stores with annual sales of at least \$2 million, drug stores with annual sales of at least \$1 million, mass merchandisers, Wal-Mart, club (Sam's and BJ's), dollar stores (Dollar General, Family Dollar, and Fred's), and military/DECA. The following analysis is based on the Nielsen retail universe Expanded All Outlets Combined (xAOC) data described

above. The average price of orange juice and OJ volume sales at retail during the 2022-23 season was largely dependent upon juice availability from recent crop production and existing inventories, market growth/contraction, and substitutes. Overall inflation on the global market was also a critical factor. Retail sales were initially estimated assuming consumer behavior during 2022 would carry forward into the 2022-23 season amid consumer concerns over high inflation in the economy. It was also assumed that supply constraints would not be apparent until later in the season and well into next season. Estimates with a sensitivity analysis are provided for three price scenarios in Table 14.

Scenario 1 (middle or base price): Overall retail OJ price is projected to increase from \$7.91 per gallon in 2021-22, to \$8.73 per gallon in 2022-23, a 10.2% increase in retail price. The rise in overall prices can be attributed, in part, to the elevated promotional prices, which surpassed the non-promotional prices from the previous year due to inflation in the category during the season. In addition to orange juice price elasticity, the demand for OJ depends on levels of OJ advertising and promotion, consumer income, attitudes and perceptions, and competition from other beverages through prices and advertising/ promotion levels of these beverages, as well as other factors.

Retail sales of orange juice, in terms of equivalent gallon sales, are projected to decline based on increased prices and somewhat declining distribution. OJ sales in Nielsen retail outlets are estimated at about 355.5 million equivalent gallons in 2022-23, down 12.8% from last season's sales of 407.5 million SSE gallons based on the average price of \$8.71 per equivalent gallon. Estimates of sales by segment (FCOJ, NFC, and RECON) are also shown in the table. The preceding estimates represent a 55.1% NFC market share of OJ category market sales volume, RECON market share estimated at 38.0% of total OJ category market sales volume, FCOJ market

share estimated at 3.7% of total OJ category market sales volume, and remaining share of total volume allocated to shelf stable. The shift in the share of retail volume from NFC to Recon accounts for the significant decline in NFC OJ volume movement due to changes in processing methods by some suppliers.

Orange juice sold on promotion at retail is at a historic low, contributing to an increase in the average reported price. The share of orange juice sold on promotion with corresponding price per equivalent gallon is reported in Table 15. Nielsen collects promotional information from retailers, known as trade promotions, which are compiled into four categories in the FDOC Nielsen custom database. The key promotional items are: 1) feature items, 2) display items, 3) a combination of both feature and display, and 4) temporary price reductions (also known as price decrease). The FDOC Nielsen custom database provides periodic updates on the share of retail sales sold with and without promotions. Feature items are retailer specific promotions, such as print ads and coupons from retailers. Displays must be set in a secondary selling location and showcase a product in high traffic areas that consumers can pick up and purchase. A display must be temporary for Nielsen to recognize as a display. A promotion that combines elements of features and displays are tracked separately. Finally, a common trade promotion is a temporary price reduction. Price decreases must be at least five percent lower than regular price. If the lower price persists over seven consecutive weeks, Nielsen will consider the reduced price as the new regular price and will no longer record the item as sold on promotion (source: NielsenIQ).

Nielsen's reporting of promotional activity declined considerably during the pandemic, which may have been due to multiple factors. The most critical was the inability of Nielsen in-store data dispatchers to coordinate with retailers. Another reason behind the reduction in activity had to do with supply-chain coordination. An analysis of trade promotions pre- and post-pandemic

(January 2018 through December 2019 versus period of April 2020 through August 2021) revealed that gallons sold on promotion declined by 7% for total orange juice sales, 9% for NFC orange juice sales, and 4% for Recon orange juice sales.

An analysis of trade promotions reveals that, for total refrigerated orange juice sales in the 2022-23 season, the share of gallons sold on promotion increased slightly from 25.4% during the 2021-22 season to 26.1% during the 2022-23 season. Sales of NFC orange juice sold on promotion also increased from 27.6% during the 2021-22 season to 28.7% during the 2022-23 season. At the same time, the average price of orange juice sold on trade promotion during the 2022-23 season was \$8.20 per equivalent gallon, an increase of nearly 13% compared to the previous season. It is worth noting that the average price of orange juice sold on trade promotion during the 2022-23 season was nearly 1% higher than the average price of orange juice at \$8.13 per equivalent gallon not sold on trade promotion the previous season.

Florida Fresh Orange Shipments, by Market

Florida fresh certified shipments are reported in Table 16. Certified fresh orange utilization during the 2022-23 season accounted for approximately 9.2% of total orange production, a higher share allocated to the fresh market than reported in recent history. Nevertheless, certified fresh orange shipments in 2022-23 were 1.45 million boxes (equivalent to 2.90 million cartons), which would be a decrease of 40.7% from the 2.45 million boxes (equivalent to 4.89 million cartons) shipped last season. Domestic market fresh orange shipments are projected at 2.79 million cartons, down by 1,931,013 cartons. The domestic share is projected to be about 96% of all Florida fresh orange shipments in 2022-23. Florida packers exported 111,442 cartons of fresh oranges during the 2022-23 season, representing a decline of 34.5% compared to last season. Accounting for 89% of all exports, Canada remains the leading destination of Florida fresh oranges.

Florida Grapefruit Crop, Utilization and Movement

The USDA/NASS September preliminary estimate for the Florida grapefruit crop in 2022-23 is 1.81 million boxes, a decrease of 45.6% from last season's crop of 3.33 million boxes (Table 17). Florida grapefruit production has suffered losses of more than 96% since the 2003-04 season due to the harmful impacts of hurricanes and HLB. Certified fresh grapefruit shipments were nearly 1.04 million boxes in 2022-23, which would represent a decline of about 41% compared to certified fresh utilization last season. Non-certified fresh utilization was around 30,000 boxes in 2022-23 season. Processed utilization is projected to account for approximately 38% of the total crop and was roughly 680,000 boxes, a decline of about 55.3% compared to the 2021-22 season. Utilization of the processed grapefruit crop into single-strength grapefruit juice (SSGJ), which is used to make NFC grapefruit juice, accounted for 100% of processed utilization this season; marking a structural shift away from processed utilization into frozen concentrated grapefruit juice (FCGJ) in the 2022-23 season. The remaining 60,000 boxes are designated as other processed utilization.

Florida Grapefruit Juice Inventory and Movement

Florida began the 2022-23 season with 12.66 million SSE gallons of GJ in inventory (42.9 weeks supply), down from the previous season's level of 16.90 million SSE gallons (55.6 weeks supply based on average movement at that time) (Table 18). Combined GJ production plus processor imports, domestic and foreign, in 2022-23 is estimated at 9.98 million SSE gallons, down 3.09 million SSE gallons from last season. Combining production with beginning inventories, GJ availability in 2022-23 is estimated at 22.6 million SSE gallons, down by 24.5% and representing a decrease of 7.33 million gallons from last year. GJ movement in 2022-23 is estimated at 12.68 million SSE gallons, down 21.8% from last year. The 2022-23 ending inventory

for Florida GJ is estimated at 9.96 million SSE gallons (or 40.9 weeks supply). Table 18 also describes the availability, movement, and inventory estimates for FCGJ and SSGJ projected for the 2022-23 season.

The 2022-23 season marks a structural shift in which Florida processors Florida processors utilized 100% of the processed grapefruit crop for SSGJ (i.e., GJ NFC). Beginning inventory of SSGJ for the 2022-23 season is down by 18.1% over the previous season at 8.45 million SSE gallons (34.58 weeks supply). Production from Florida fruit is estimated at 3.56 million SSE gallons based on a little more than 680,000 boxes of grapefruit and juice yield 5.223 SSE gallons per box, representing a 50.9% decrease in pack from fruit over the previous season.

Beginning inventory of FCGJ for the 2022-23 season was down by 36.0% over the previous season at 4.21 million SSE gallons (51.85 weeks supply). Florida processors did not report production from Florida fruit this season. Exports of in 2022-23 are down significantly and estimated at 0.03 million SSE gallons based on analysis of Florida processor statistics and industry sources. In some seasons, the level of GJ exports reported by the Florida citrus processors has exceeded the level reported by the U.S. Department of Commerce. The U.S. Department of Commerce data are tracked to provide an indication of market shares across export destinations.

U.S. Grapefruit Juice Supply, Disappearance, and Retail Sales

U.S. GJ disappearance is estimated at 23.22 million SSE gallons in 2022-23, compared to 29.18 million SSE gallons in the previous season (Table 19).⁸ Disappearance is expected to decline by 20.4% between 2021-22 season and the 2022-23 seasons due largely to Florida's production losses following Hurricane Ian in 2023, but this may be overstated due to previous season estimates

⁸ Disappearance in prior seasons included non-Florida domestic cold storage supplies that are not tracked by USDA. This outlook incorporates estimates of cold-storage. Some duplication with Florida storage may occur but are negligible as reported here.

including cold storage supplies not tracked within the FDOC Florida processor database or by USDA cold storage estimates. Total U.S. GJ production is estimated at 14.2 million SSE gallons based on Florida processors data and the USDA preliminary estimates of the grapefruit crop in California and Texas (NASS, 2023d). The expected decrease in disappearance during the 2022-23 season aligns with the reduction in availability alongside a decline in distribution. Total U.S. GJ imports are estimated at 9.06 million SSE gallons, an increase of 124% over the previous season. U.S. exports are projected at 3.91 million SSE gallons, a decrease of 23.5% over the previous season. Overall, per capita consumption is roughly 0.07 gallons per capita.

Other U.S. grapefruit come primarily from California and Texas with the utilization intended for both fresh and processed consumption. According to the USDA/NASS preliminary estimates for citrus production forecast in the 2022-23 season (NASS, 2023d), California is expected to produce 4.0 million 80-lb boxes of grapefruit, which would be a decrease of 2.4% compared to the previous season. As many as 1.2 million boxes are estimated to have been processed into juice this season based on NASS utilization rates (NASS, 2023d). The USDA/NASS citrus production preliminary estimate for Texas grapefruit production in the 2022-23 season is 2.3 million 80-lb boxes, an increase of 32.4% over the previous season. The Texas crop share into processed utilization could represent more than 970,000 80-lb boxes. This analysis estimates that as many as 2.0 million 85-lb Florida equivalent boxes of California and Texas combined production may be used in processing of grapefruit juice. The share of single-strength and concentrate is not reported by either state. This analysis projects that grapefruit juice production may decrease by approximately 23.4% from an estimated 14.0 million SSE gallons of orange juice in the 2021-22 season to 10.7 million SSE gallons in the 2022-23 season.

The Nielsen Topline Report provides more exact measures but with an abridged market

coverage across all retailers. The FDOC purchases Nielsen retail outlet data for GJ sales in grocery stores with annual sales of at least \$2 million, drug stores with annual sales of at least \$1 million, mass merchandisers, Wal-Mart, club (Sam's and BJ's), dollar stores (Dollar General, Family Dollar, and Fred's), and military/DECA. The following analysis is based on the Nielsen retail universe xAOC data described above.

In addition to higher GJ prices, retail sales of GJ during the 2022-23 season have been constrained by substitutes, declines in distribution, and decline in promotion for more than a decade. While the final season sales data is not yet available, estimates are provided for three price scenarios. Nielsen retail sales of GJ are projected to decrease from 11.41 million SSE gallons to 10.55 million SSE gallons, assuming a 5.2% increase in price for the overall price of GJ from \$9.73 to \$10.24 per SSE gallon from last year (middle scenario) (Table 20). Estimates of sales by segment (FCGJ, NFC, and RECON) are also shown in Table 20. The estimates project market share of NFC GJ will be 69% of retail sales volume, Shelf Stable market share estimated at 26% of retail sales volume, FCGJ market share estimated at 3% of retail sales volume, and remaining shares allocated to Recon GJ.

Grapefruit juice selling on promotion at retail, like orange juice, has been historically low, and this is contributing to an increase in the average reported price. The share of grapefruit juice sold on promotion with corresponding price per equivalent gallon is reported in Table 21. Nielsen collects promotional information from retailers, known as trade promotions, which are compiled into four categories in the FDOC Nielsen custom database. The key promotional items are: 1) feature items, 2) display items, 3) a combination of both feature and display, and 4) temporary price reductions (also known as price decrease). The FDOC Nielsen custom database provides periodic updates on the share of retail sales sold with and without promotions. Feature items are

retailer specific promotions, such as print ads and coupons from retailers. Displays must be set in a secondary selling location and showcase a product in high traffic areas that consumers can pick up and purchase. A display must be temporary for Nielsen to recognize as a display. A promotion that combines elements of features and displays are tracked separately. Finally, a common trade promotion is a temporary price reduction. Price decreases must be at least five percent lower than regular price. If the lower price persists over seven consecutive weeks, Nielsen will consider the reduced price as the new regular price and will no longer record the item as sold on promotion (source: NielsenIQ).

An analysis of trade promotions reveals that, for total refrigerated grapefruit juice sales, the share of gallons sold on promotion increased slightly from 29.1% during the 2021-22 season to 31.9% during the 2022-23 season. Sales of shelf stable grapefruit juice sold on promotion has also increased from 5.2% during the 2021-22 season to 8.6% during the 2022-23 season in the total refrigerated grapefruit juice sales. At the same time, the average price of grapefruit juice sold on trade promotion during the 2022-23 season was \$9.00 per equivalent gallon, an increase of 4% compared to the previous season. The no promo price of grapefruit juice was \$10.73 per equivalent gallon, a 6.6% increase compared to the previous season.

Fresh Grapefruit Shipments, by Market

Florida fresh certified grapefruit shipments are reported in Table 22. Certified fresh grapefruit utilization is projected to account for approximately 57% of total grapefruit production during the 2022-23 season. Certified fresh grapefruit shipments in 2022-23 are currently estimated at 1.04 million boxes (equivalent to 2.07 million cartons), which would represent a decline of 41.1% compared to last season. Domestic fresh grapefruit shipments are projected at 1.71 million cartons, which would represent a decline of 34.3% compared to last season. The domestic share

has increased in recent years from around 42% annually to an 83% share of all Florida fresh grapefruit shipments in 2022-23.

Florida exported around 360,000 cartons of fresh grapefruit during the 2022-23 season, representing a decline of 61% compared to last season. Certified Florida fresh exports represented 17% of all fresh shipments. Florida fresh grapefruit shipped to various export markets in Asia, Europe, and Canada. The top export market for Florida certified fresh grapefruit this season was Europe, having shipped 176,736 cartons and representing 8.5% of all certified fresh shipments. Florida fresh packers shipped approximately 99,484 cartons to Canada, which accounted for nearly 5% of all fresh shipments. Previously the leading market for Florida fresh grapefruit, Japan and Korea (ROK) now received approximately 74,378 cartons of fresh Florida grapefruit, accounting for the remaining 3.6% of all fresh shipments.

Florida Specialty Crop and Utilization

The USDA/NASS September preliminary estimate of the Florida specialty crop in 2022-23 is 480,000 boxes, a decrease of 270,000 boxes from last season (Table 23). Despite higher FOB prices in recent years, specialty production has declined more than 94% since the 2003-04 season. The USDA/NASS preliminary estimate of specialty citrus includes tangelos, Royal tangerines (formerly known as Temple oranges), early tangerine varieties, honey tangerines, Autumn Honey, Juicy Crunch, Orri, Roe, Tango, and other minor tangerine varieties. Temples were classified and reported as early-midseason oranges between the 2005-06 and 2015-16 seasons. Florida fresh certified shipments are estimated to be about 67% of the crop with a reported 323,739 boxes (equivalent to 647,478 cartons) moving during the 2022-23 season to primarily the domestic market (Table 24). Domestic fresh specialty shipments are projected at 640,862 cartons, down by 229,538 cartons. The domestic share represented 99% of annual shipments this season. Accounting

for 73% of exports, Canada is the leading destination of Florida fresh specialty receiving 4,450 cartons.

Preliminary On-Tree Price Expectations

Prices are critical variables for the various projections in this report. For example, they are the primary explanatory variables in projecting volume sales, which in turn, determine inventory levels. Various data on citrus prices are reported. From this, price trends can be identified and used in the analysis. In this section, some price trends at the grower level are discussed. Nothing herein is meant to imply minimum pricing, nor FDOC staff opinion on optimal pricing. The preliminary estimates of on-tree price are used to estimate certified on-tree revenues for the season.

State average certified on-tree revenue for 2022-23 are estimated using the same methodology used by the USDA/NASS Florida Field Office to calculate the final on-tree returns reported in the preliminary 2022-23 Citrus Summary released on August 31, 2023.⁹ The on-tree price estimates are based on assumed state average prices and costs and may not reflect the returns for any particular grower to the extent that prices and costs faced by a grower deviate from the averages. The on-tree prices are determined by factoring in the estimated expenses for picking, hauling, and packing charges (if applicable). This calculation utilizes a weighted average based on production at the state level for both fresh and processing markets as reported in the USDA/NASS 2021-22 Florida Citrus Statistics (Singerman, 2023a and 2023b). The variance in average processor delivered-in prices per pounds solids for processed oranges and grapefruit are shown in Table 25. The estimated delivered-in prices in 2022-23 are weighted averages of priced fruit as of the week of delivery (spot and contract). Industry sources are consulted to assess the proximity of

⁹ Note that the 2022-23 USDA/NASS preliminary estimate for processed on-tree returns may significantly underestimate total on-tree returns for the prior season before adjustments are made for intermediate priced fruit. This analysis attempts to account for intermediate priced fruit in the 2022-23 season. Prices are for certified fruit only.

assumptions on contract prices with actual market values. On-tree price projections are calculated using pick and haul costs as reported by the University of Florida's Citrus Research and Education Center (UF-CREC) (Singerman, 2023b). Based on assumed average delivered-in prices for early/mid-season and Valencia oranges of \$2.54/ps¹⁰ and \$2.94/ps, respectively, average processed on-tree prices in 2022-23 for early/mid-season and Valencia oranges are estimated at \$7.71/box and \$10.16/box, respectively (Table 25). Based on assumed average delivered-in prices for white and red grapefruit combined of \$3.19/ps, average processed on-tree prices in 2022-23 for white grapefruit and red grapefruit are estimated at \$10.75/box (Table 25).

Certified on-tree revenues for Florida oranges, grapefruit, and specialty citrus varieties are reported in Table 26. Total certified orange on-tree revenue is projected at \$158.0 million for the 2022-23 season compared to the preliminary estimated \$396.9 million for the 2021-22 season, representing a 60% decrease ~~24% decrease~~ in orange revenues for the season. Total processed orange on-tree revenue is projected at \$131.8 million in 2022-23 compared to the preliminary estimate of \$357.8 million for the 2021-22 season, representing a 63.2% decrease in processed revenues for the season. Fresh orange on-tree revenue is estimated to decrease to \$26.2 million in 2022-23 compared to \$39.1 million in 2021-22, representing a 32.9% decrease.

Total certified grapefruit on-tree revenue is projected at \$41.4 million for the 2022-23 season compared to the preliminary estimated \$58.6 million for the 2021-22 season, representing 29% decrease in grapefruit revenues for the season. Total processed grapefruit on-tree revenue is projected at \$7.3 million in 2022-23 compared to the preliminary estimate of \$13.4 million for the 2021-22 season, representing a 45.2% decrease in processed revenues for the season. Fresh

¹⁰ ps = refers to pounds solids or the amount of soluble solids in each box of fruit.

grapefruit on-tree revenue is estimated to decrease to \$34.1 million in 2022-23 compared to \$45.2 million in 2021-22, representing a 24.5% decrease.

Total specialty on-tree revenue is projected at \$12.7 million for the 2022-23 season compared to the preliminary estimated \$11.6 million for the 2021-22 season, representing a 10% increase in specialty revenues for the season.

Overall, on-tree revenues for oranges, grapefruit, and specialty citrus are projected to decline by 54.6% from an estimated \$467.1 million in the 2021-22 season to an estimated \$212.2 million in 2022-23 season.

Summary: Implications for the Florida Grower

The preliminary production projection for the 2022-23 Florida citrus season is 18.09 million boxes, an estimated 60% decline in total citrus production of Florida oranges, grapefruit, and tangerines compared to production in the 2021-22 season. The decline in production was almost entirely related to the tumultuous hurricane season in 2022 in which all 375,00 commercial acres of Florida citrus were directly impacted by Hurricane Ian. Other weather-related events, such as the January 2022 freeze and Hurricane Nicole in November 2022 also contributed to losses. Yet, demand for Florida citrus products remained strong during 2023 amid the highest inflation in more than 40 years. Grower prices are projected to improve compared to the 2021-22 season, but overall returns to growers are projected to decline with the reduced crop and higher production costs.

USDA/NASS preliminary estimates of the 2022-23 season reports that Florida production of round orange was 15.8 million boxes, production of grapefruit crop was 1.81 million boxes, and production of specialty tangerines were 480,000 boxes.

Approximately 90% of the 15.8 million boxes of orange production were allocated to the processed market, reflecting a substantial portion of the total yield. Notably, a significant share of this allocation was directed towards the production of single-strength orange juice, indicating a strong demand for processed orange products. It is worth highlighting that imports of SSOJ saw an increase, aligning with market expectations. The frozen concentrated orange juice market experienced a significant decrease in movement of 20 percent, primarily attributed to a reduction in production and a decline in imports. This trend could be indicative of shifting consumer preferences towards, and higher returns from, not-from-concentrate (NFC) orange juice, which is often perceived as a premium product. Additionally, there has been a noticeable drop in private label orange juice UPCs, signaling noteworthy changes in market dynamics. Globally, there is a growing tendency towards NFC production, potentially contributing to the decline in FCOJ production. Intriguingly, the remaining 10% earmarked for the fresh market represents a notable shift. This allocation marks the highest fresh market share in decades, contrasting with historical figures typically ranging between 4 and 6 percent. This shift could indicate higher losses of oranges produced for the processed sector along with a potentially evolving preference towards planting fresh oranges. Preliminary estimates indicate certified orange on-tree revenues are projected to decline by 60% with \$158.0 million estimated, which is consistent with production losses.

In the 2022-23 season, approximately 57% of Florida 1.81 million boxes of grapefruit production was projected to be directed towards the fresh market. The domestic share of fresh grapefruit shipments has been on an upward trajectory in recent years, escalating from an annual average of around 42% to an impressive 83% share in the 2022-23 season. Approximately 38% of the total grapefruit crop, roughly 680,000 boxes, was utilized by Florida-based processors, representing a significant decrease of about 55.3% compared to the 2021-22 season. Notably, the

entire processed grapefruit crop was channeled into the production of single-strength grapefruit juice (SSGJ). This shift may mark the final departure from the emphasis on frozen concentrated grapefruit juice (FCGJ) in the 2022-23 season. Preliminary estimates indicate certified grapefruit on-tree revenues are projected to decline by 30% with \$41.4 million in the early estimates.

Florida fresh certified shipments for specialty citrus are estimated to be about 67% of the crop with a reported 323,739 boxes (equivalent to 647,478 cartons) moving during the 2022-23 season to primarily the domestic market. Total specialty on-tree revenue is projected at \$12.7 million for the 2022-23 season compared to the preliminary estimated \$11.6 million for the 2021-22 season, representing a 10% increase in specialty revenues for the season.

Overall, preliminary data suggests on-tree revenues for oranges, grapefruit, and specialty citrus are projected to decline by 54.6% to an estimated \$212.2 million this season. This decline can be directly attributed to a challenging hurricane season, exacerbating the persistent and longstanding challenge posed by HLB. Additionally, while higher on-tree prices are anticipated, they are offset by lower yields and increased costs associated with inputs.

The Florida citrus industry continues to be in a state of recovery following several years of decline, including dealing with higher production costs, reduced overall tree replant rates, and annual declines in fruit availability that have had irreversible impacts on industry infrastructure. In the wake of high inflation, highlighting consumer demand is crucial by leveraging their increased awareness on health and wellness. Ensuring the industry's recovery is not only vital for meeting immediate needs but also for sustaining long-term growth.

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TABLES

Table 1. Utilization of Florida round oranges.

Season	Certified ^a Fresh	FCOJ ^b	SSOJ ^b	Certified ^a Processed	Non- Certified ^c Fresh	Other	Total
millions 90-lb boxes							
2003-04	6.16	137.50	93.39	232.34	3.74	1.22	242.00
2004-05	4.90	52.18	88.51	142.36	2.49	1.71	149.80
2005-06	4.53	49.11	90.17	140.46	2.78	1.11	147.70
2006-07	4.97	45.96	75.21	121.96	1.43	1.43	129.00
2007-08	4.42	80.80	85.11	163.83	1.43	1.27	170.20
2008-09	5.54	72.58	82.81	155.13	1.38	1.56	162.50
2009-10	4.49	52.74	75.14	127.48	1.37	1.68	133.70
2010-11	4.48	51.75	82.69	134.09	1.48	0.13	140.50
2011-12	4.63	65.35	75.52	140.28	1.46	-0.26	146.70
2012-13	4.59	47.95	79.23	127.18	1.38	0.41	133.60
2013-14	4.15	22.72	76.03	98.88	1.35	0.44	104.70
2014-15	3.99	19.22	71.89	91.72	0.98	0.87	96.95
2015-16	3.07	15.84	61.85	77.60	0.92	0.10	81.70
2016-17	2.19	12.65	53.27	66.09	0.62	0.14	68.85
2017-18	2.33	7.66	34.36	42.26	0.43	0.27	45.05
2018-19	2.32	15.20	53.76	69.11	0.43	0.16	71.85
2019-20	2.98	14.15	49.85	64.18	0.25	0.18	67.30
2020-21	3.05	5.81	43.66	49.65	0.22	0.21	52.95
2021-22	2.45	4.19	34.36	38.62	0.15	0.07	41.05
2022-23 ^f	1.59	2.63	23.67	#N/A	0.11	<0.00	28.00
2022-23 ^u ^c	1.45	1.35	12.96	#N/A	0.16	<0.00	15.80

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Certified deliveries to Florida processors based on Florida Department of Agriculture and Consumer Services data.

^b FCOJ and SSOJ utilization includes specialty boxes processed into orange juice; Florida reporting facilities (F.A.C. 20-3) only.

^c USDA final processed utilization is 120k less than FDACS certified processed utilization.

Table 2. Utilization of world oranges – Selected Countries.

Season	<u>United States</u>			<u>Brazil</u>			<u>Mexico</u>		
	Prod ^a	Util Fresh	Util Proc	Prod ^a	Util Fresh	Util Proc	Prod ^a	Util Fresh	Util Proc
- million 90-lb equivalent boxes -									
2004-05	208.8	53.1	155.7	377.0	120.0	257.0	98.0	79.9	18.1
2005-06	203.4	48.6	154.9	467.0	117.0	350.0	101.8	88.1	13.7
2006-07	171.8	33.0	138.8	406.0	110.5	295.5	104.1	86.9	17.1
2007-08	227.0	49.9	177.1	441.0	110.0	331.0	105.3	80.8	24.5
2008-09	205.2	43.3	162.0	453.0	113.0	340.0	102.7	78.2	24.5
2009-10	186.4	50.3	136.0	413.0	124.0	289.0	99.2	77.7	21.6
2010-11	197.9	51.1	146.7	417.0	130.0	287.0	99.9	77.2	22.8
2011-12	199.6	50.7	148.9	388.0	119.0	269.0	89.8	69.5	20.3
2012-13	183.7	49.8	134.0	554.0	135.0	419.0	107.8	70.8	37.0
2013-14	150.4	42.1	108.3	504.0	177.0	327.0	111.0	81.6	29.4
2014-15	141.2	40.1	101.1	401.0	133.0	268.0	110.6	72.6	38.0
2015-16	135.3	45.1	90.2	438.0	148.0	290.0	112.8	72.3	40.4
2016-17	113.1	39.6	73.5	409.7	127.7	282.0	113.4	62.0	51.4
2017-18	86.1	37.0	49.1	353.3	121.3	232.0	111.0	64.4	46.5
2018-19	120.6	38.2	82.5	512.0	117.0	395.0	113.6	59.7	53.9
2019-20	115.9	41.5	74.4	391.0	122.0	269.0	62.0	39.9	22.0
2020-21	97.5	36.2	61.3	364.5	90.5	274.0	101.3	68.2	33.1
2021-22p	76.3	31.3	44.9	415.0	114.2	300.8	113.9	60.0	53.9
2022-23f	71.0	35.3	35.7	409.1	111.1	298.0	84.9	47.5	37.5
2022-23u	55.3	32.1	23.2	410.6	112.9	297.7	102.9	59.8	43.1

u = update; f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a U.S. production estimates as reported by USDA-NASS Citrus Fruits Summary (*various issues*) and converted into 90-lb equiv. boxes; Brazil based on various Foreign Agricultural Service GAIN reports and Fundecitrus/CitrusBR. Mexico based on Foreign Agricultural Service, Official USDA Estimates as of September 2023.

^b Fresh utilization includes NFC for domestic consumption for all seasons and NFC for export prior to 2003-04; thereafter, NFC-for-export, along with FCOJ utilization, is included in processed boxes.

^c Weighted by utilized round oranges and specialty citrus used in OJ.

Table 3. Comparative utilization of round oranges, Florida, São Paulo, and Mexico.

Season	Florida			São Paulo ^a			Mexico ^b		
	Prod	Utilization		Prod	Utilization		Prod	Utilization	
		Fresh	Processed		Fresh	Processed		Fresh	Processed
- million 90-lb equivalent boxes -									
2004-05	149.8	7.4	142.4	290.0	46.0	244.0	98.0	80.1	18.1
2005-06	147.7	7.3	140.4	380.0	44.0	336.0	101.8	88.4	13.7
2006-07	129.0	6.4	122.6	320.0	36.5	283.5	104.1	86.6	17.1
2007-08	170.2	5.9	164.3	350.0	34.0	316.0	105.3	80.8	24.5
2008-09	162.5	6.9	155.6	360.0	35.0	325.0	102.7	78.1	24.5
2009-10	133.7	5.9	127.8	315.0	39.0	276.0	99.2	77.6	21.6
2010-11	140.5	6.0	134.5	320.0	46.0	274.0	99.9	77.3	22.8
2011-12	146.7	6.1	140.6	285.0	28.0	257.0	89.8	69.9	20.3
2012-13	133.6	6.0	127.6	444.0	49.0	395.0	107.8	70.7	37.0
2013-14	104.7	5.5	99.2	390.0	80.0	310.0	111.0	81.1	29.4
2014-15	97.0	5.1	91.8	290.0	45.0	245.0	110.6	72.2	38.0
2015-16	81.7	4.0	77.7	325.0	55.0	270.0	112.8	71.7	40.4
2016-17	68.9	2.8	66.0	300.7	38.7	262.0	113.4	60.6	51.4
2017-18	45.1	2.9	42.2	245.3	36.3	209.0	116.0	68.2	46.5
2018-19	71.9	3.0	68.8	407.0	36.0	371.0	115.5	60.9	53.9
2019-20	67.3	2.9	64.4	286.0	41.0	245.0	62.0	39.1	22.0
2020-21	53.0	3.3	49.7	268.6	46.1	222.5	113.9	59.2	53.9
2021-22	41.1	2.6	38.5	263.0	38.6	224.4	112.6	58.6	52.7
2022-23f	28.0	1.7	26.3	314.0	37.1	277.0	84.9	46.3	37.5
2022-23u	15.8	1.6	14.2	314.1	48.8	265.3	102.9	58.7	43.1

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Based on USDA, FAS, "Brazil Citrus Semi-annual," GAIN report various issues and Fundecitrus updates.

^b FAS Production, Supply and Demand database; 2020-21 and 2021-22 estimated using various industry sources. Data current through July 2021 and may not reflect the freezes from February 2021.

^c Weighted by utilized round oranges and specialty citrus used in OJ.

Table 4. Comparative orange juice yields, Florida, Brazil, and Mexico.

Season	Florida	São Paulo SSE gal/box	Mexico
2004-05	6.30517	6.23894	5.69285
2005-06	6.44845	5.79055	5.73593
2006-07	6.54986	6.24501	5.68517
2007-08	6.61971	6.07673	5.79887
2008-09	6.59442	6.18843	5.96943
2009-10	6.23481	5.59156	5.68517
2010-11	6.35204	5.38623	5.58736
2011-12	6.52862	5.87744	5.68517
2012-13	6.38718	5.32859	5.68517
2013-14	6.22370	5.36539	5.96554
2014-15	5.93257	5.01416	5.83188
2015-16	5.67329	5.87939	5.70240
2016-17	5.82744	4.67900	5.68517
2017-18	5.57996	4.93765	5.83478
2018-19	5.71727	5.01665	5.42675
2019-20	5.69192	5.22540	5.68517
2020-21	5.33159	5.32177	5.68517
2021-22	4.89963	5.34500	5.68517
2022-23 ^f	4.14410	5.29939	5.68517
2022-23 ^u	4.71572	5.24781	5.68517

^u = update;

^f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Source: FDOC Processors Statistics database.

^b Source: CitrusBr

^c Estimated juice yield in Mexico is calculated using USDA/FAS Production, Supply and Distribution (PSD) Datasets. The yield remains unchanged from 2019-20 to present suggesting the reported yield is used to derive production estimates.

Table 5. Comparative orange juice production, Florida, São Paulo, and Mexico.

Season	Florida ^a (October - September)	São Paulo ^a (July - June)	Mexico ^c (October - September)	Total
- million SSE gallons -				
2004-05	900.6	1,959.4	103.2	2,963.2
2005-06	916.7	1,726.8	78.7	2,722.3
2006-07	807.1	1,921.8	97.5	2,826.4
2007-08	1,098.3	1,977.5	142.0	3,217.9
2008-09	1,024.7	1,761.7	146.2	2,932.6
2009-10	797.3	1,699.0	122.6	2,618.8
2010-11	854.0	1,538.8	127.3	2,520.1
2011-12	919.7	2,147.9	115.6	3,183.2
2012-13	812.3	1,685.5	210.3	2,708.1
2013-14	614.6	1,201.2	175.4	1,991.2
2014-15	540.5	1,461.0	221.4	2,223.0
2015-16	440.8	1,222.8	230.5	1,894.0
2016-17	384.1	916.1	292.4	1,592.7
2017-18	234.5	1,956.1	264.6	2,455.2
2018-19	394.3	1,242.7	306.4	1,943.3
2019-20	364.3	1,699.6	125.3	2,189.2
2020-21	263.8	1,185.1	306.4	1,755.2
2021-22	188.9	1,161.7	299.4	1,650.0
2022-23 ^f	112.1	1,453.4	213.0	1,778.5
2022-23 ^u	67.5	1,337.0	245.1	1649.5

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Source: Florida Department of Citrus Processor Database.

^b Source: Brazilian Association of Citrus Exporters (CitrusBR)

^c Estimated juice yield in Mexico is calculated using USDA/FAS Production, Supply and Distribution (PSD) Datasets.

Table 6. Total Florida, Brazil, and Mexico OJ availability

Season	<u>Florida</u> ^a		<u>Brazil</u> ^b		<u>Mexico</u> ^c		<u>Total</u>			
	Beg. Inv.	Prod.	Beg. Inv.	Prod.	Beg. Inv.	Prod.	Beg. Inv.	Prod.	Avail	Avail Change
- million SSE gallons -										
2004-05	794.78	911.12	334.23	1,602.90	1.39	103.19	1,130.40	2,617.21	3,747.60	-11.9%
2005-06	602.80	924.46	140.65	1,726.84	2.51	78.68	745.96	2,729.98	3,475.94	-9.67%
2006-07	446.29	815.73	25.07	1,921.81	1.39	97.48	472.75	2,835.02	3,307.77	-4.84%
2007-08	363.06	1,107.55	20.89	1,977.51	1.39	142.05	385.34	3,227.11	3,612.45	9.21%
2008-09	624.16	1,034.74	231.17	1,761.66	2.79	146.22	858.12	2,942.62	3,800.75	5.21%
2009-10	672.93	806.07	239.53	1,698.99	2.79	122.55	915.25	2,627.61	3,542.86	-6.79%
2010-11	548.46	863.71	178.25	1,538.84	2.79	127.28	729.50	2,529.83	3,259.34	-8.00%
2011-12	391.23	928.39	303.12	2,147.86	2.79	115.59	697.14	3,191.83	3,888.97	19.32%
2012-13	433.56	820.90	936.70	1,685.48	-	210.28	1,370.26	2,716.66	4,086.92	5.09%
2013-14	523.57	622.41	1,083.01	1,201.17	2.29	175.36	1,608.87	1,998.93	3,607.80	-11.72%
2014-15	473.95	547.24	755.82	1,460.99	1.27	221.43	1,231.04	2,229.66	3,460.70	-4.08%
2015-16	503.16	443.59	721.69	1,222.77	2.39	230.48	1,227.24	1,896.84	3,124.07	-9.73%
2016-17	409.89	387.41	497.11	916.12	2.37	292.45	909.37	1,595.98	2,505.35	-19.80%
2017-18	368.28	236.73	151.84	1,956.07	1.67	264.60	521.80	2,457.40	2,979.20	18.91%
2018-19	357.31	396.47	484.95	1,242.68	2.79	306.38	845.05	1,945.53	2,790.57	-6.33%
2019-20	517.69	366.60	358.00	1,699.63	27.85	125.34	903.54	2,191.57	3,095.11	10.91%
2020-21	397.78	265.55	666.19	1,185.09	2.79	306.38	1,066.75	1,757.02	2,823.77	-8.77%
2021-22	347.20	189.64	448.14	1,161.74	2.79	299.41	798.12	1,650.79	2,448.91	-13.28%
2022-23f	602.80	924.46	140.65	1,726.84	2.51	78.68	745.96	2,729.98	3,475.94	-9.67%
2022-23u	212.95	67.47	202.35	1,336.97	2.79	245.10	418.09	1,649.55	2,067.63	-15.57%

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Source: Florida Department of Citrus Processor Database.

^b Source: Brazilian Association of Citrus Exporters (CitrusBR).

^c Source: USDA/FAS Production, Supply and Distribution (PSD) Datasets for Mexico.

Table 7. Brazil orange juice exports to select regions.

Season	USMCA			Europe			East Asia	All Else	Total
	Concentrate	NFC	Total	Concentrate	NFC	Total	Total	Total	
Jul - Jun	- million SSE gallons -								
2004-05	281.08	21.00	302.07	1,330.54	74.21	1,404.75	205.98	88.64	2,001.45
2005-06	223.00	24.60	247.59	1,206.68	102.90	1,309.58	231.93	115.46	1,904.56
2006-07	336.80	34.91	371.71	1,219.97	135.76	1,355.73	183.07	90.66	2,001.18
2007-08	274.35	72.80	347.15	1,051.31	157.51	1,208.83	164.23	92.22	1,812.43
2008-09	147.29	59.26	206.55	1,150.97	173.89	1,324.86	161.44	91.39	1,784.24
2009-10	200.57	60.39	260.96	1,085.01	167.50	1,252.51	189.07	89.16	1,791.70
2010-11	86.28	73.06	159.34	978.55	197.67	1,176.22	227.75	80.34	1,643.65
2011-12	149.29	67.38	216.68	970.30	173.15	1,143.45	174.90	84.96	1,619.99
2012-13	222.31	69.51	291.82	929.34	214.98	1,144.32	146.16	77.72	1,660.02
2013-14	252.62	48.96	301.58	804.02	213.92	1,017.94	135.34	84.86	1,539.71
2014-15	261.06	83.43	344.50	884.95	210.27	1,095.22	144.98	91.79	1,676.49
2015-16	191.39	88.13	279.52	898.24	228.44	1,126.68	124.76	81.90	1,612.86
2016-17	144.04	101.30	245.34	652.13	234.23	886.36	113.50	96.19	1,341.39
2017-18	290.29	154.93	445.23	806.54	228.19	1,034.74	151.06	86.68	1,717.70
2018-19	126.29	150.72	277.00	684.16	230.21	914.37	120.66	73.21	1,385.25
2019-20	134.80	111.39	246.19	840.00	234.84	1,074.85	150.74	67.86	1,539.64
2020-21	155.75	135.73	291.48	712.62	255.72	968.34	144.10	83.66	1,487.58
2021-22	121.47	161.68	283.14	669.91	219.27	889.18	164.33	74.41	1,411.06
2022-23	193.86	250.54	444.40	528.28	188.07	716.35	147.40	55.09	1,363.25

Source: FDOC-EMRD IMEX Database; Secretary of External Commerce – Brazil Comex Stat

Table 8. U.S. Imports orange juice, by origin and type.

FCOJ	2018-19	2019-20	2020-21	2021-22	2022-23
- million SSE gallons -					
Florida Ports	259,877,147	120,237,520	175,014,098	178,114,848	150,968,593
BRAZIL	65,828,582	29,623,767	57,711,921	32,850,373	62,908,930
MEXICO	161,797,022	61,128,559	91,708,575	118,417,894	64,657,864
COSTA RICA	29,706,057	25,638,906	23,870,353	25,786,273	22,379,546
BELIZE	2,327,934	3,578,647	1,449,858	102,830	2,839
Rest of World	217,551	267,641	273,390	957,478	1,019,414
Rest of US	88,513,838	83,466,244	89,606,491	81,798,725	104,175,787
BRAZIL	67,278,889	65,233,048	70,419,192	62,677,270	83,729,360
MEXICO	18,559,430	15,428,259	16,244,040	13,839,183	14,319,932
COSTA RICA	211,251	556,074	720,455	1,282,144	525,081
BELIZE			200		1379.6584
Rest of World	2,464,269	2,248,862	2,222,604	4,000,128	5,600,035
FCOJ Total	348,390,985	203,703,764	264,620,589	259,913,573	255,144,380
NFC-OJ	2018-19	2019-20	2020-21	2021-22	2022-23
Florida Ports	88,596,139	38,550,471	73,003,176	124,769,318	203,588,759
BRAZIL	76,006,369	30,400,980	56,429,047	108,008,020	187,429,816
MEXICO	12,588,534	8,123,475	16,533,163	16,512,468	15,679,107
Rest of World	1,236	26,016	40,966	248,830	479,836
Rest of US	44,799,286	49,988,471	56,111,399	55,875,578	37,050,348
BRAZIL	33,003,291	39,575,844	41,293,369	38,887,017	32,522,133
MEXICO	11,739,404	10,330,474	14,372,111	15,655,190	3,948,429
Rest of World	56,591	82,153	445,919	1,333,371	579,787
NFC-OJ Total	133,395,425	88,538,942	129,114,575	180,644,897	240,639,107

Source: FDOC-EMRD IMEX Database; U.S. Department of Commerce.

Table 9. Total Florida OJ availability, movement, and carryover for 2022-23, and actual for 2021-22.

Item ^a	2021-22	2022-23f	2022-23u		
			Low ^b	Mid	High ^c
- millions 11.8° Brix gallons -					
Beginning Inventory ^a	347.2	214.3	213.0	213.0	213.0
Production ^a	192.5	112.1	67.5	67.5	67.5
Imports ^d	315.2	444.6	396.2	440.2	484.3
Other adjustments ^e	44.0	24.1	40.3	40.3	40.3
Availability	898.8	795.1	716.9	760.9	805.0
Total Movement	684.4	605.7	568.5	568.5	568.5
Domestic	643.7	585.1	565.3	565.3	565.3
Export	21.2	20.6	3.2	3.2	3.2
Ending Inventory	214.3	189.5	148.39	192.4	236.44
- weeks supply -					
Carryover	16.8	16.8	13.6	17.6	21.6

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Based on data reported by Florida Citrus processors' statistics; October-September season.

^b Projected Florida imports 10% less than middle scenario.

^c Projected Florida imports 10% more than middle scenario.

^d Includes production by Florida Citrus processors' statistics members and an estimate of other Florida production by non-members.

^e Foreign and domestic; reprocessed tangerine juice; net loss/gain during reprocessing; and adjustments.

Table 10. Florida FCOJ availability, movement, and carryover for 2022-23, and actual for 2020-21 and 2021-22.

Item	2020-21	2021-22	2022-23f	2022-23u
FCOJ	- million SSE gallons -			
Beginning Inventory	252.33	226.17	122.19	122.19
Pack	29.37	19.74	10.78	5.96
Other Sources	214.49	185.13	294.42	198.49
Imports	211.76	185.28	294.60	189.89
FCTJ	4.00	3.70	3.45	2.63
Evap	6.40	4.39	1.55	1.47
Net loss/gain	(1.45)	(2.88)	(5.18)	4.50
Total FCOJ Availability	502.42	436.40	427.39	326.65
Total FCOJ Movement	276.24	314.20	319.23	247.11
By Form				
Retail	8.05	7.79	7.65	6.90
Institutional	46.61	53.78	43.47	47.65
Bulk	221.58	252.63	268.11	192.56
By Market				
Domestic	254.26	294.89	300.24	244.70
Export	21.99	19.31	18.99	2.41
Ending Inventory	226.17	122.19	108.17	79.53
Carryover	42.57	20.22	17.62	16.74

u = update;

Forecast (based on the USDA production forecast for 2020-21 season released on October 10, 2020).

^a Includes pack from specialty fruit.

^b Domestic receipts by members of non-Florida products; Florida product received by members from non-members; foreign imports; reprocessed frozen concentrated tangerine juice; chilled OJ used in FCOJ, net loss or gain during reprocessing; and adjustments.

^c Forecasted imports, FCTJ, Evap and Net loss/gain adjustments combined in October 2020 Florida Citrus Outlook.

Data source: FDOC Florida Citrus processors' statistics database.

Table 11. Florida SSOJ availability, movement, and carryover for 2022-23, and actual for 2020-21 and 2021-22.

Item ^a	2020-21	2021-22	2022-23f	2022-23u
<u>SSOJ</u>	----- million SSE gallons -----			
Beginning Inventory	145.45	121.02	92.14	90.76
Pack From Fruit	234.40	169.14	101.36	61.51
Other Sources	98.48	145.26	172.69	282.01
Imports	88.86	122.53	141.56	242.77
Recon	23.10	33.39	38.40	46.36
Net loss/gain	(13.48)	(10.66)	(7.27)	(7.12)
Total SSOJ Availability	478.33	435.43	366.19	434.28
Total SSOJ Movement	357.24	344.67	284.87	321.40
By Form				
Packaged	343.89	333.57	269.24	302.12
Bulk	13.35	11.10	17.19	19.28
NFC By Market				
Domestic	355.35	342.82	284.85	320.59
Export	1.90	1.85	1.58	0.81
Ending Inventory	121.09	90.76	83.67	112.88
Bulk Ending Inventory ^d	116.08	85.41	78.67	108.02
	----- weeks supply -----			
Carryover	17.6	13.7	15.3	18.3
Bulk Carryover ^d	16.9	12.9	14.4	17.5

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

Source: Florida Citrus processors' statistics.

^a Availability, movement and inventory adjusted by Florida Citrus processors' statistics to 11.8° Brix gallons.

^b Includes supplies from non-member sources and adjustments.

^c Assumes RECON movement equals pack from FCOJ.

^d Forecasted adjustment incorporated into pack from fruit in October 2020 Florida Citrus Outlook.

^e Assumes bulk inventories are NFC.

Table 12. U.S. orange juice supply and disappearance.

Season	Beginning Inventory ^a	Total U.S. Production ^b	United States		Ending Inventory	Disappearance	
			Imports ^c	Exports ^{c,d}		TOTAL	Per Capita
- millions SSE gallons -							gallons
2004-05 ^a	890.0	977.7	357.5	119.1	674.9	1,431.2	5.0
2005-06	674.9	996.2	298.8	137.7	808.4	1,023.9	3.5
2006-07	808.4	896.1	399.2	122.6	651.4	1,329.7	4.5
2007-08	651.4	1,171.6	405.5	138.7	1,161.8	927.9	3.1
2008-09	1,161.8	1,066.8	317.4	124.7	1,188.3	1,233.0	4.1
2009-10	1,188.3	846.8	327.6	146.7	1,005.7	1,210.3	4.0
2010-11	1,005.7	920.2	265.2	214.2	657.7	1,319.1	4.4
2011-12	657.7	966.9	223.3	151.7	730.3	966.0	3.2
2012-13	730.3	850.7	420.5	169.4	856.2	975.8	3.2
2013-14	856.2	664.4	417.6	160.0	782.5	995.8	3.2
2014-15 ^e	782.5	590.3	458.4	113.1	525.0	1,193.0	3.8
2015-16	525.0	504.0	390.1	91.6	436.8	890.7	2.8
2016-17	436.8	420.5	416.8	72.1	378.2	823.8	2.6
2017-18	378.2	268.6	581.3	44.8	364.8	818.5	2.6
2018-19	364.8	456.0	481.8	41.9	528.2	732.5	2.3
2019-20 ^e	528.2	408.7	292.2	47.8	415.9	765.4	2.4
2020-21 ^f	421.8	316.0	393.8	43.1	371.9	716.5	2.2
2021-22 ^p	371.9	218.8	440.6	42.2	234.9	754.1	2.27
2022-23 ^f	251.7	163.4	533.3	30.8	209.10	708.6	2.05
2022-23 ^u	234.9	107.3	573.6	30.4	210.8	674.5	2.02

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Based on FCOJ inventories for the United States (National Agricultural Statistics Service, Cold Storage Reports) plus Florida SSOJ inventories (FCPS); in 2003-04 and prior years based on Florida FCOJ and SSOJ inventories (adjusted to 11.8° Brix gallons).

^b OJ production from TX and CA estimated using USDA estimates, Florida production includes estimate from non-reporting processor members.

^c U.S. Department of Commerce. Actual prior to 2019-20. Projected for September 2020-21 season.

^d FDOC processor statistics reporting exports which exceeded the volume reported by the U.S. Department of Commerce.

^e Ending inventories for a 53-week season.

^f Adjustment to non-Florida cold storage is reflected in season 2020-21 and forward.

Table 13. Florida processor OJ receipts, movement, and inventory, by type.

Season	Net from Florida Fruit ^a	Imports and Other Receipts ^{b,c}	Domestic Packaged Movement	Domestic Bulk Movement	All exports	Net change in inventory
----- million SSE gallons -----						
<u>FCOJ</u>						
2014-15	123.33	252.37	83.93	234.31	36.18	21.28
2015-16	92.78	197.77	78.72	235.29	41.96	(65.42)
2016-17	75.67	254.37	68.75	224.05	60.00	(22.75)
2017-18	42.16	304.46	64.35	214.88	15.69	51.70
2018-19	87.03	295.82	63.56	225.57	18.98	74.75
2019-20	82.04	164.78	54.17	237.55	15.16	(60.06)
2020-21	31.15	220.71	54.67	199.59	21.99	(24.38)
2021-22	23.32	190.49	61.25	233.64	19.31	(100.39)
2022-23f	11.75	294.42	51.12	268.11	18.99	(32.04)
2022-23u	6.93	198.49	54.55	192.56	2.41	(44.10)
<u>SSOJ</u>						
2014-15	423.91	34.07	407.12	28.40	8.04	14.42
2015-16	350.81	39.69	384.92	23.77	6.82	(25.01)
2016-17	311.74	59.37	356.01	25.65	5.01	(15.55)
2017-18	194.56	100.04	328.96	24.13	1.97	(60.46)
2018-19	309.44	110.30	318.16	17.30	2.21	82.06
2019-20	284.57	36.01	352.16	23.46	2.60	(57.64)
2020-21	234.40	98.48	343.89	11.45	1.90	(24.36)
2021-22	169.14	145.26	333.57	9.25	1.85	(30.26)
2022-23f	101.36	174.24	269.24	17.19	1.58	(12.41)
2022-23u	61.51	283.48	302.12	19.28	0.81	22.78

u = update;

^a FCOJ includes an estimate of non-reporting processor pound solids.

^b FCOJ other receipts includes net loss/gain in production, evaporated SSOJ, and concentrated tangerine juice used in FCOJ.

^c SSOJ other receipts includes net loss/gain in production, reconned FCOJ used in SSOJ, and is less evaporated SSOJ

Florida Department of Citrus; processor database.

Table 14. Retail orange juice sales.

Season	NFC	RECON	FCOJ	Other	TOTAL
Volume^b					
----- million SSE gallons -----					
2014-15	292.1	175.9	21.2	0.6	489.8
2015-16	282.8	164.9	20.0	0.4	468.1
2016-17	265.4	148.7	18.1	0.3	432.4
2017-18 ^c	249.1	133.3	16.4	12.3	411.4
2018-19	231.0	136.0	14.7	12.6	394.2
2019-20	263.5	150.9	17.9	13.1	445.4
2021-22	260.3	137.5	15.1	14.7	427.6
2021-22	244.5	135.0	14.7	13.3	407.5
2022-23^f	198.7	163.6	14.1	13.2	389.5
2022-23^u^a					
High Price	193.7	133.6	13.1	11.5	351.9
Mid-Price	195.7	135.0	13.2	11.6	355.5
Low Price	196.7	135.6	13.3	11.6	357.2
Price^b					
----- \$ per SSE gallon -----					
2014-15	7.63	4.95	4.96	9.11	6.55
2015-16	7.56	4.92	4.91	8.95	6.51
2016-17	7.67	5.15	4.93	8.67	6.69
2017-18 ^c	7.92	4.97	5.07	7.45	6.83
2018-19	8.40	4.88	5.06	7.42	7.03
2019-20	8.62	4.86	5.13	7.31	7.17
2021-22	8.81	4.86	5.13	7.62	7.37
2021-22	9.48	5.31	5.33	8.21	7.91
2022-23^f	10.27	6.03	5.40	8.63	8.36
2022-23^u^a					
High Price	10.34	6.78	5.93	9.29	8.80
Mid-Price	10.25	6.72	5.88	9.21	8.73
Low Price	10.16	6.66	5.83	9.13	8.65

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Based on an analysis of trends to estimate remaining two periods for the season. Nothing herein is meant to imply minimum pricing, nor FDOC staff opinion on optimal pricing.

^b Data source: Nielsen Answers on Demand, Expanded All Outlets Combined; FDOC Custom database. Grocery stores \$2 million+, mass merchandisers, Walmart discount stores and supercenters, club stores, dollar stores, drug stores \$1 million+, and military/DECA.

^c Routine maintenance of the FDOC Custom database revealed several items (UPCs) were categorized as Recon OJ instead of shelf stable OJ. The database was refreshed in January 2019 altering the totals for the 2017-18 season forward.

Table 15. Share of 100% orange juice sold on promotion with reported price, by type

Season	2019-20	2020-21	2021-22	2022-23p
Share - Any Promo^a	----- % of total sales -----			
NFC	30.4%	28.5%	27.6%	28.7%
RECON	21.4%	22.1%	24.6%	25.1%
TOTAL	26.0%	25.0%	25.4%	26.1%
Share - No Promo	----- % of total sales -----			
NFC	69.6%	71.5%	72.4%	71.3%
RECON	78.6%	77.9%	75.4%	74.9%
TOTAL	74.0%	75.0%	74.6%	73.9%
Any Promo Price	----- \$ per SSE gallon -----			
NFC	\$7.93	\$8.13	\$8.61	\$9.35
RECON	\$4.27	\$4.33	\$4.65	\$6.48
TOTAL	\$6.83	\$6.99	\$7.26	\$8.20
No Promo Price	----- \$ per SSE gallon -----			
NFC	\$8.93	\$9.09	\$9.81	\$10.75
RECON	\$5.03	\$5.01	\$5.52	\$6.85
TOTAL	\$7.29	\$7.50	\$8.13	\$8.95

^aShare sold on promotion include feature items, display items, a combination of both feature and display, and temporary price reductions (also known as price decrease). Information is reported for informational purposes. Outlook projections of retail sales are not disaggregated by promotional activity.

Data source: Nielsen Answers on Demand, Expanded All Outlets Combined; FDOC Custom database.

Table 16. Destination markets for Florida certified fresh orange shipments.

Season	Exports		Domestic				TOTAL ^b	
(Aug-July)	Overseas ^a	Canada	South	Northeast	Central	West		
----- million 45-pound cartons -----								90-lb boxes
2004-05	0.42	0.57	3.99	3.37	1.21	0.24	9.81	4.90
2005-06	0.15	0.54	4.03	3.14	1.04	0.16	9.06	4.53
2006-07	0.12	0.56	4.51	3.11	1.26	0.04	9.59	4.80
2007-08	0.28	0.49	3.91	2.91	0.97	0.01	8.58	4.29
2008-09	0.25	0.59	4.69	3.97	1.30	0.02	10.83	5.41
2009-10	0.19	0.55	3.83	3.17	0.95	0.03	8.73	4.36
2010-11	0.14	0.55	3.70	3.22	1.03	0.04	8.69	4.35
2011-12	0.09	0.51	3.93	3.27	1.22	0.06	9.08	4.54
2012-13	0.12	0.57	3.92	3.16	1.21	0.04	9.02	4.51
2013-14	0.12	0.53	3.35	2.81	1.28	0.03	8.13	4.06
2014-15	0.06	0.65	3.09	2.68	1.33	0.03	7.83	3.92
2015-16	0.13	0.50	2.29	1.97	1.10	0.02	6.02	3.01
2016-17	0.03	0.39	1.51	1.61	0.82	0.02	4.38	2.19
2017-18	0.02	0.34	1.64	1.57	1.05	0.05	4.67	2.33
2018-19	0.04	0.27	1.54	1.66	1.08	0.04	4.63	2.32
2019-20	0.02	0.24	2.38	2.00	1.27	0.04	5.96	2.98
2020-21	0.03	0.19	2.66	1.74	1.27	0.21	6.09	3.05
2021-22	0.02	0.15	1.96	1.47	1.23	0.06	4.89	2.45
2022-23f	0.01	0.11	1.32	0.98	0.71	0.06	3.19	1.59
2022-23u	0.01	0.10	1.20	0.89	0.65	0.05	2.90	1.45

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

Source: Division of Fruit and Vegetable Inspection Service, Florida Department of Agriculture.

a Includes some offshore exports not destined for Europe.

b May not add up due to rounding.

Table 17. Utilization of Florida grapefruit.

Season	Volume					
	Fresh	FCGJ	SSGJ	Non-Certified	Other ^a	TOTAL
----- millions 85-lb boxes -----						
2004-05	6.70	2.47	2.76	0.71	0.15	12.80
2005-06	6.24	8.00	4.12	0.68	0.26	19.30
2006-07	10.31	11.56	4.43	0.65	0.25	27.20
2007-08	9.91	10.45	5.20	0.71	0.33	26.60
2008-09	8.68	8.42	3.70	0.66	0.23	21.70
2009-10	8.71	6.04	4.59	0.65	0.32	20.30
2010-11	7.73	7.01	4.18	0.66	0.18	19.75
2011-12	7.25	6.87	3.83	0.68	0.22	18.85
2012-13	7.14	6.10	4.23	0.70	0.18	18.35
2013-14	6.05	4.73	4.05	0.50	0.32	15.65
2014-15	5.27	3.83	3.16	0.44	0.19	12.90
2015-16	4.54	2.77	3.04	0.41	0.04	10.80
2016-17	3.25	1.81	2.36	0.25	0.09	7.76
2017-18	1.62	0.54	1.54	0.12	0.06	3.88
2018-19	1.79	0.60	1.97	0.14	0.01	4.51
2019-20	2.04	0.47	2.24	0.09	<0.001	4.85
2020-21	1.89	0.31	1.79	0.10	0.01	4.10
2021-22	1.76	0.20	1.33	0.07	<0.001	3.33
2022-23 ^f	1.02	0.08	0.85	0.05	<0.001	2.00
2022-23 ^u	1.04	0.00	0.68	0.03	0.06	1.81

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

Table 18. Florida FCGJ and SSGF availability, movement, and carryover for 2020-21, and actual for 2021-22 through 2022-23.

Item	2020-21	2021-22	2022-23f	2022-23u
<u>FCGJ</u>		--- millions SSE gallons ---		
Beginning Inventory	8.48	6.58	4.21	4.21
Pack From Fruit	1.48	1.02	0.43	0.00
Imports and other adjustments ^a	1.05	0.84	1.21	0.76
Total FCGJ Availability	<u>11.01</u>	<u>8.43</u>	<u>5.86</u>	<u>4.18</u>
Movement	<u>4.44</u>	<u>4.22</u>	<u>3.55</u>	<u>1.61</u>
Ending Inventory	6.58	4.21	2.32	2.57
Carryover (weeks supply)	77.1	51.8	34.0	83.1
<u>SSGJ^c</u>		--- Million SSE gallons ---		
Beginning Inventory	10.98	10.32	8.45	8.45
Pack from Fruit ^a	9.08	7.25	4.56	3.56
Imports/Dom Receipts ^b	<u>2.18</u>	<u>3.58</u>	<u>4.26</u>	<u>5.97</u>
Total SSGJ Availability	<u>22.24</u>	<u>21.16</u>	<u>17.27</u>	<u>17.98</u>
Movement – NFC	11.78	11.98	11.77	11.07
Movement– RECON/EVAP ^{d,e}	0.42	0.98	0.67	0.41
Total SSGJ Movement	<u>12.04</u>	<u>12.71</u>	<u>12.20</u>	<u>11.24</u>
Bulk Ending Inventory	10.04	8.19	4.84	6.51
		--- Weeks supply ---		
Bulk Carryover ^f	44.1	34.6	21.7	31.2
<u>TOTAL GJ</u>				
Beginning Inventory	19.46	16.90	12.66	12.66
Production and Imports ^a	<u>13.43</u>	<u>13.07</u>	<u>10.03</u>	<u>9.98</u>
Total GJ Availability	<u>32.90</u>	<u>29.97</u>	<u>22.69</u>	<u>22.64</u>
Movement- Domestic	14.32	15.30	14.91	12.65
Movement- Export	1.90	0.91	0.40	0.03
Total GJ Movement	<u>16.22</u>	<u>16.21</u>	<u>15.31</u>	<u>12.68</u>
Bulk Ending Inventory	17.00	12.66	7.38	9.96
		--- Weeks supply ---		
Carryover	54.5	42.9	25.1	40.9

u = update;

Source: FDOC Florida Citrus processors' statistics database.

^a Includes adjustments and pack from reprocessed FCGJ.

^b Includes domestic receipts of non-Florida product, receipts of Florida product from non-member processors, and receipts from foreign sources

^c Availability, movement and inventory adjusted by FCPS to 10.0° Brix gallons.

^d Rounds to zero on FPS Weekly Report.

^e Assumes RECON movement equals pack from FCGJ.

^f Includes packaged

Table 19. U.S. grapefruit juice production, supply, and disappearance.

Season	United States ^a					Disappearance	
	Beg Inv	Prod ^b	Imports	Exports ^c _d	End Inv	TOTAL	Per Capita
Millions SSE gallons							
2004-05 ^f	72.1	53.2	11.4	27.6	35.9	73.1	0.25
2005-06	36.0	81.3	5.6	21.6	44.8	56.5	0.19
2006-07	44.8	124.7	0.9	42.9	62.6	64.9	0.22
2007-08	62.6	113.9	0.3	40.5	64.9	71.4	0.23
2008-09 ^e	64.9	88.3	0.5	37.1	50.4	66.1	0.22
2009-10	50.4	82.0	0.6	24.7	45.8	62.5	0.20
2010-11	45.8	87.3	0.4	32.8	35.6	65.1	0.21
2011-12	35.6	81.7	0.5	23.8	39.5	54.5	0.17
2012-13	39.5	78.5	0.8	22.7	36.8	59.3	0.19
2013-14	36.8	67.1	0.3	18.2	35.9	50.1	0.16
2014-15 ^e	35.9	51.6	0.4	16.0	29.7	42.2	0.13
2015-16	29.7	45.8	0.8	11.1	27.7	37.6	0.12
2016-17	27.7	37.9	2.8	8.6	21.0	38.7	0.12
2017-18	21.0	23.7	6.7	6.8	14.0	30.6	0.09
2018-19	14.0	38.9	12.3	5.9	17.8	41.5	0.13
2019-20 ^e	17.8	30.3	5.0	5.0	19.5	28.7	0.09
2020-21 ^g	19.5	18.4	2.7	4.9	23.5	18.9	0.06
2021-22	23.5	22.0	4.0	5.1	15.3	29.2	0.09
2022-23 ^f	15.3	15.2	5.1	5.0	9.5	21.2	0.06
2022-23 ^u	15.3	14.2	9.1	3.9	11.5	23.2	0.07

u = update;

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Estimated as U.S. production plus imports minus exports plus beginning inventory minus ending inventory. Prior to 2019-20 season, presumed consumption estimates may have included cold storage outside of Florida. As of 2021-22, estimates of non-Florida processor cold storage incorporated into beginning and ending inventory.

^b GJ production from TX and CA estimated using USDA estimates, Florida production includes estimate from non-reporting processor members.

^c U.S. Department of Commerce, except for exports in 2002-03, 2003-04, and 2006-07 through 2010-11.

^d FDOC processor statistics reporting exports which exceeded the volume reported by the U.S. Department of Commerce.

^e Ending inventories for a 53-week season.

^f 2004-05 and thereafter Florida bulk NFC inventory and production adjusted by FCPS to 10.0° Brix gallons.

^g Production and inventory adjustments may have reduced actual Disappearance measure by approximately 5 million gallons.

Table 20. Retail grapefruit juice sales.

Season	Refrig. NFC	Refrig. RECON	Shelf Stable	FCGJ/Other	TOTAL
Volume					
-----million SSE gallons -----					
2014-15	9.67	0.98	4.02	0.18	14.85
2015-16	9.29	0.98	3.91	0.20	14.38
2016-17 ^b	9.20	0.84	3.77	0.13	13.94
2017-18 ^b	9.01	0.47	3.76	0.09	13.34
2018-19 ^{b,c}	8.46	0.10	2.99	0.39	11.95
2019-20 ^{b,c}	8.91	0.15	2.99	0.47	12.52
2020-21	8.47	0.18	2.97	0.42	12.04
2021-22	8.21	0.20	2.54	0.46	11.41
2022-23 ^f	8.25	0.17	2.89	0.41	11.71
2022-23 ^u ^b					
High Price	7.28	0.18	2.76	0.31	10.53
Mid Price	7.29	0.18	2.77	0.31	10.55
Low Price	7.30	0.18	2.78	0.31	10.57
Price					
----- \$ per SSE gallon -----					
2014-15	7.86	6.21	6.43	\$4.96	7.33
2015-16	7.86	6.46	6.39	\$4.92	7.32
2016-17 ^b	7.81	8.36	6.28	\$4.93	7.39
2017-18 ^b	8.35	6.97	6.22	\$5.07	7.68
2018-19 ^{b,c}	8.95	16.32	6.79	\$5.06	8.33
2019-20 ^{b,c}	9.27	18.16	7.41	\$5.13	8.73
2020-21	9.49	19.12	7.73	\$5.13	9.03
2021-22	10.01	19.97	8.71	\$5.33	9.73
2022-23 ^f	10.54	20.99	9.09	5.94	10.20
2022-23 ^u ^b					
High Price	10.53	21.99	9.07	7.71	10.26
Mid Price	10.51	21.95	9.05	7.69	10.24
Low Price	10.50	21.93	9.04	7.68	10.23

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

^a Based on an analysis of trends. Nothing herein is meant to imply minimum pricing, nor FDOC staff opinion on optimal pricing.

^b Data source: Nielsen Answers on Demand, Expanded All Outlets Combined; FDOC Custom database. Grocery stores \$2 million+, mass merchandisers, Walmart discount stores and supercenters, club stores, dollar stores, drug stores \$1 million+, and military/DECA.

^c One or more refrigerated recon products, as indicated by UPCs in the FDOC custom database, were confirmed as discontinued leading to a significant drop in volume for the category. The volume remaining recon products reflects equivalent gallons of small container sizes which would indicate a significant increase in price.

Table 21. Share of 100% grapefruit juice sold on promotion with reported price, by type.

Season	2019-20	2020-21	2021-22	2022-23
Share - Any promo^a	----- % of total sales -----			
NFC	34.1%	31.4%	29.1%	31.9%
RECON	8.0%	6.2%	5.2%	8.6%
TOTAL	27.1%	24.3%	23.3%	25.5%
Share - No Promo	----- % of total sales -----			
NFC	65.9%	68.6%	70.9%	68.1%
RECON	92.0%	94.0%	94.8%	91.4%
TOTAL	72.9%	75.7%	76.7%	74.5%
Any Promo Price	----- \$ per SSE gallon -----			
NFC	\$8.00	\$8.21	\$8.49	\$8.89
RECON	\$7.51	\$9.09	\$10.95	\$10.22
TOTAL	\$7.92	\$8.27	\$8.64	\$9.00
No Promo Price	----- \$ per SSE gallon -----			
NFC	\$9.93	\$10.07	\$10.64	\$11.36
RECON	\$7.40	\$7.66	\$8.59	\$8.96
TOTAL	\$9.03	\$9.27	\$10.06	\$10.73

^aShare sold on promotion include feature items, display items, a combination of both feature and display, and temporary price reductions (also known as price decrease). Information is reported for informational purposes. Outlook projections of retail sales are not disaggregated by promotional activity.

Data source: Nielsen Answers on Demand, Expanded All Outlets Combined; FDOC Custom database.

Table 22. Destination markets for Florida certified fresh grapefruit.

Season (Aug-July)	Domestic	Exports				TOTAL ^b	
		Canada	Europe ^a	Far East	Total Exports ^b		
	----- million 42½-pound cartons -----						million 85-lb box equivalent
2004-05	4.90	0.80	2.80	5.00	8.60	13.50	6.75
2005-06	4.80	0.80	2.10	4.80	7.70	12.50	6.25
2006-07	6.75	1.28	4.40	8.20	13.87	20.62	10.31
2007-08	6.20	1.20	5.00	7.50	13.70	19.90	9.95
2008-09	6.05	1.09	3.92	6.30	11.31	17.35	8.68
2009-10	6.11	1.15	3.46	6.71	11.31	17.42	8.71
2010-11	5.40	1.10	3.12	5.84	10.06	15.46	7.73
2011-12	5.53	0.99	2.80	5.17	8.96	14.49	7.25
2012-13	5.99	1.09	2.92	4.28	8.28	14.27	7.14
2013-14	5.13	0.99	2.61	3.39	6.98	12.11	6.05
2014-15	4.44	0.81	2.24	3.06	6.11	10.55	5.27
2015-16	3.79	0.65	1.93	2.70	5.28	9.07	4.54
2016-17	2.66	0.42	1.42	1.99	3.83	6.49	3.25
2017-18	1.51	0.22	0.61	0.90	1.73	3.24	1.62
2018-19	1.87	0.30	0.52	0.88	1.70	3.57	1.78
2019-20	2.24	0.31	0.71	0.83	1.85	4.09	2.04
2020-21	2.45	0.22	0.52	0.57	1.33	3.78	1.89
2021-22	2.60	0.16	0.42	0.32	0.92	3.52	1.76
2022-23f	1.29	0.12	0.30	0.33	0.75	2.04	1.02
2022-23u	1.71	0.10	0.18	0.07	0.36	2.07	1.04

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

Source: Division of Fruit and Vegetable Inspection Service, Florida Department of Agriculture.

^a Includes some offshore exports not destined for Europe.

^b May not add up due to rounding.

Table 23. Utilization of Florida fresh specialty.

Season	Fresh	Non-Certified	Processed	Total
----- millions 90-pound boxes -----				
2004-05	3.81	0.29	2.19	6.00
2005-06	4.16	0.34	2.75	6.90
2006-07	3.50	0.37	2.35	5.85
2007-08	3.71	0.31	3.29	7.00
2008-09	3.34	0.35	1.66	5.00
2009-10	3.43	0.38	1.92	5.35
2010-11	3.45	0.40	2.35	5.80
2011-12	3.27	0.39	2.17	5.44
2012-13	2.69	0.31	1.60	4.28
2013-14	2.34	0.33	1.44	3.78
2014-15	1.92	0.18	1.56	3.48
2015-16	1.13	-	0.70	1.82
2016-17 ^b	0.85	-	0.77	1.62
2017-18	0.49	-	0.26	0.75
2018-19	0.54	-	0.45	0.99
2019-20	0.64	-	0.38	1.02
2020-21	0.60	0.05	0.29	0.89
2021-22	0.48	0.05	0.27	0.75
2022-23 ^f	0.41	0.04	0.25	0.70
2022-23 ^u	0.32	0.01	0.15	0.48

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

a Processed boxes are utilized for orange juice, except some tangerines utilized to 100% produce tangerine juice.

b Starting in the 2016-17 season, Royal tangerines (formerly Temple) reported with specialty.

Table 24. Destination markets for Florida certified fresh specialty shipments.

Season	Exports		Domestic				TOTAL ^b	
(Aug- July)	Overseas	Canada	South	Northeast	Central	West		
----- million 45-pound cartons -----								
								--- millions 90- pound boxes-- --
2004-05	0.09	0.34	2.43	2.19	1.12	0.87	7.05	3.52
2005-06	0.09	0.39	2.75	2.35	1.17	0.88	7.63	3.81
2006-07	0.01	0.43	2.55	2.14	1.29	0.20	6.61	3.30
2007-08	0.01	0.41	2.82	2.47	1.20	0.16	7.07	3.53
2008-09	0.00	0.33	2.40	2.22	1.16	0.14	6.25	3.12
2009-10	0.05	0.33	2.45	1.97	0.95	0.60	6.35	3.17
2010-11	0.10	0.30	2.47	1.96	0.99	0.55	6.36	3.18
2011-12	0.04	0.24	2.42	1.82	0.89	0.55	5.95	2.98
2012-13	0.05	0.21	2.04	1.48	0.72	0.42	4.93	2.46
2013-14	0.03	0.16	1.70	1.33	0.62	0.37	4.20	2.10
2014-15	0.03	0.13	1.53	1.19	0.48	0.26	3.61	1.80
2015-16	0.01	0.06	0.99	0.81	0.32	0.17	2.37	1.19
2016-17	0.02	0.04	0.72	0.61	0.20	0.13	1.72	0.86
2017-18	0.00	0.01	0.41	0.30	0.09	0.05	0.87	0.43
2018-19	0.01	0.03	0.48	0.31	0.09	0.06	0.98	0.49
2019-20	0.01	0.03	0.58	0.31	0.11	0.11	1.14	0.57
2020-21	0.01	0.02	0.63	0.23	0.08	0.12	1.10	0.55
2021-22	0.01	0.01	0.55	0.17	0.06	0.07	0.88	0.44
2022-23f	0.01	0.02	0.46	0.19	0.06	0.08	0.81	0.41
2022-23u	<0.00	<0.01	0.42	0.13	0.04	0.06	0.65	0.32

u = update.

f = Forecast (based on the USDA production forecast for 2022-23 season released on October 12, 2022).

Source: Division of Fruit and Vegetable Inspection Service, Florida Department of Agriculture.

a Includes some offshore exports not destined for Europe.

b May not add up due to rounding.

Table 25. Projected average preliminary 2022-23 Florida fresh and processed on-tree prices.

Item	FOB Price	Packing Costs ^{b,c}	Delivered-In Price ^a		Pick & Haul Costs ^d	On-Tree Price ^a
----- \$ per carton -----				----- \$ per box -----		
<u>FRESH (100% Pack Out)^e</u>						
Oranges						
Navel	32.06	8.07	40.14	20.07	4.05	24.12
Early & Mid	20.51	8.07	28.58	14.29	4.05	18.34
Valencia	16.31	8.07	24.38	12.19	4.47	16.66
Grapefruit ^e						
White	44.17	7.79	51.96	25.98	3.19	29.17
Red	35.29	7.79	43.08	21.54	2.93	24.47
Specialty						
All Tangerine	53.91	9.37	63.28	31.64	6.46	38.10
<u>PROCESSED</u>				- \$/ps^f -		
Oranges ^g						
Early & Mid (4.68 ps/box)	Low:	2.41	11.26	4.17	7.09	
	Mid:	2.54	11.88	4.17	7.71	
	High:	2.65	12.42	4.17	8.25	
Valencia (4.97 ps/box)	Low:	2.78	13.81	4.46	9.35	
	Mid:	2.94	14.62	4.46	10.16	
	High:	3.08	15.33	4.46	10.87	
Grapefruit ^g						
Red/White (4.44 ps/box)	Low:	3.00	13.31	3.42	9.89	
	Mid:	3.19	14.17	3.42	10.75	
	High:	3.36	14.92	3.42	11.50	

^a No implications regarding minimum or optimal prices are intended herein. Prices based on the marketing year average on-tree price received. 2022-23 preliminary prices are based on cash sales only as reported by the USDA, National Agricultural Statistics Service in "2022-23 Citrus Summary," 08/31/2023.

^b Packing charges for Florida citrus are reported by Singerman (2023a).

^c Includes Industry Assessments (See Singerman (2023a)).

^d Pick and haul costs are reported by Singerman (2023b).

^e White/Red grapefruit estimates based on CAC weighted average estimates for the season. No implications regarding minimum or optimal prices are intended herein.

^f Net of FDOC assessment, inspection fees and import duty ps = refers to pounds solids or the amount of soluble solids in each box of fruit.

^g Spot and contract final prices known week of delivery for Florida certified shipments. Round orange prices include hybrids & tangerines processed with round oranges. Yield data source: Florida Processor Statistics database.

Table 26. Preliminary On-tree returns for certified Florida citrus.

Variety	2021-22			2022-23 ^p		
	Fresh	Processing	TOTAL ^b	Fresh	Processing	TOTAL ^b
<u>Oranges</u>						
Early, Mids, & Navels	19.91	131.35	151.27	13.34	45.15	58.49
Valencias	19.18	226.48	245.66	12.89	86.65	99.53
Total Orange	39.09	357.84	396.93	26.23	131.79	158.02
<u>Grapefruit</u>						
Red/White Grapefruit	45.18	13.40	58.58	34.10	7.34	41.44
<u>Specialty</u>						
Total Tangerines	11.52	0.05	11.58	12.33	0.41	12.74
TOTAL CITRUS^a	95.80	371.29	467.09	72.66	139.54	212.21

p = preliminary estimates

Note that the 2022-23 USDA/NASS preliminary estimate for processed on-tree returns may significantly underestimate total on-tree returns for the prior season before adjustments are made for intermediately priced fruit.

^aBased on an analysis of trends. Nothing herein is meant to imply minimum pricing, nor FDOC staff opinion on optimal pricing. Processing data based on delivered-in prices known week of delivery. Fresh fruit data based on industry trends and the USDA/NASS Citrus Summary released in August 2023 marketing year prices.

^bMay not add up due to rounding.