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## AN OVERVIEW OF MEXICO'S CITRUS INDUSTRY

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# An Overview of Mexico's Citrus Industry* 

## Introduction

This report looks at Mexico's citrus industry and its relationship to the United States. Information on Mexico's citrus production, utilization and trade are discussed. Mexico's location adjoining the southwestern United States makes it a natural trading partner. This situation was enhanced with the passage of the North American Free Trade Agreement in December 1992, which gradually reduced tariffs on Mexican citrus exported to the U.S. starting in 1994. By 2003, all tariffs on fresh fruit and grapefruit juice (GJ) were eliminated and tariffs on orange juice (OJ) will be eliminated in 2008. The elimination of these trade barriers has helped to stimulate Mexico's citrus industry and trade with the U.S.

## Orange Production

According to the USDA-FAS, the number of hectares in Mexico planted in orange trees has increased $47.8 \%$ over the last 16 years. In 1989-90, there were 226,000 hectares compared to a projected 334,000 hectares ( 824,900 acres) for the 2005-06 season (Table 1). As a result of the heavy plantings, the number of bearing orange-trees has more than doubled from 32.0 million trees in 1989-90 to a projected 66.3 million trees in 2005-06. In comparison, Florida had 75.1 million bearing trees in 2004-05. ${ }^{1}$

[^0]The production of oranges in Mexico has shown significant growth since 198990 , when 46.5 million boxes were harvested. In the $2004-05$ season, Mexico had a record-high production of 105.3 million boxes (Table 2). The USDA estimated that orange production in 2005-06 will be 95.5 million boxes. In the last 16 years, fresh domestic orange consumption in Mexico has averaged approximately $87 \%$ of the total production. Excess production is exported to international markets, primarily the United States, mostly in the form of juice.

## Orange Juice

Mexico OJ production has fluctuated considerably since 1988-89. In 2003-04 Mexico produced 27.99 million single strength equivalent (SSE) gallons. In 2004-05 production increased significantly to 90.52 million SSE gallons. The USDA expects production to decrease by $35.4 \%$ in $2005-06$ to 58.49 million SSE gallons (Table 3). Domestic consumption of OJ in Mexico has risen from 1.69 million SSE gallons in 198889 to an estimated 6.96 million SSE gallons for the 2005-06 season, which represents an increase of $311.8 \%$.

The majority of OJ produced in Mexico is exported to the U.S. While Mexico's domestic consumption of OJ has increased, it remains a small share of production. Annual per capita OJ consumption in Mexico is less than .1 gallon. In contrast, the U.S. per capita consumption is nearly 5 gallons.
U.S. imports of OJ from Mexico have varied since the 1990s, ranging from a high of 68.7 million SSE gallons in 1995 to a low of 5.9 million SSE gallons in 2003 (Table 4). U.S. imports of OJ from Mexico increased to 12.9 million SSE gallons in 2004 and
58.7 million SSE gallons in 2005. Mexico accounted for $5.4 \%$ of total U.S. OJ imports in 2004, and $16.5 \%$ in 2005.

Mexico is a net exporter of OJ to the U.S. but does import a small amount. U.S. exports of OJ to Mexico peaked in 2000 at 3.7 million SSE gallons. By 2004 and 2005 that figure had declined to 999 thousand SSE gallons and 965 thousand SSE gallons, respectively (Table 5). In 2005, the Mexican market represented $0.8 \%$ of the total U.S. exports of orange juice.
U.S. net imports of OJ from Mexico decreased from 35.8 million SSE gallons in 2002 to 4.4 million SSE gallons in 2003, an 87.5 \% decrease (Table 6). Then, 11.8 million OJ SSE gallons were imported from Mexico in 2004 and 57.7 million SSE gallons in 2005. From 2004 to 2005, U.S. net imports from Mexico represented an increase of $385.9 \%$.

## Fresh Oranges

Typically, over 80 percent of Mexico's fresh orange production is destined for their fresh market. Fresh orange consumption in Mexico is over 70 pounds per capita compared to 11 pounds in the U.S. Mexico's fresh citrus exports to the U.S. are limited by the presence of the fruit fly in Mexico. Almost all of Mexico's production not consumed in their fresh market goes into processing. U.S. imports of fresh oranges from Mexico have fluctuated over the last 16 years from a high of 112.8 million pounds in 1999 to a low of 3.6 million pounds in 1994 (Table 7). In 2003, the U.S imported 14.3 million pounds of oranges from Mexico, but imports increased to 24.5 million pounds in 2004 and 23.6 million pounds in 2005. Since 1990, U.S exports of fresh oranges to

Mexico have increased dramatically from 3.4 million in 1990 to 50.4 million in 2005, representing a $1,379.9 \%$ increase (Table 8). In 2003, a record high 59.8 million pounds of oranges were exported to Mexico. In 2005, Mexico represented $3.6 \%$ of the total U.S. fresh citrus exports. Nonetheless, Mexico's fresh orange imports from the U.S. are still a small portion of their total domestic consumption.

## Grapefruit Production

The number of hectares planted with grapefruit in Mexico has been increasing since the $1989-90$ season, when there were 5,000 hectares. The USDA-FAS forecasts 18,230 hectares ( 45,028 acres) for the 2005-06 season, an increase of $265 \%$ since 198990 (Table 9). The total number of grapefruit trees is predicted to be 3.4 million for 200506. Of those trees, 3 million are expected to be bearing trees. Mexico's grapefruit tree population has increased by almost .5 million grapefruit trees from 2001-02 season through 2005-06.

Mexico's production of grapefruit has tripled since the early 1990's. Production in 2003-04 was 10.6 million boxes and the preliminary production in 2005-06 was 8.6 million boxes (Table 10). Over the last 16 years, fresh domestic consumption of grapefruit has averaged $78.3 \%$ of total grapefruit production.

## Grapefruit Juice

Florida's hurricanes in 2004 and 2005 and the resulting decline in U.S. production of grapefruit and GJ have stimulated Mexican GJ exports. In 2004, Mexico exported a record high 4.9 million SSE gallons of GJ to the U. S. accounting for $69.2 \%$ of
the total U.S. GJ imports (Table 11). In 2005, Mexico exported 4.3 million SSE gallons to the U.S. accounting for $69.5 \%$ of total U.S. GJ imports. Given the continuing short GJ supply in the U.S. and high prices, U.S. imports of GJ from Mexico would be expected to remain relatively high in the near future.
U.S. exports of GJ to Mexico have been relatively insignificant in terms of both quantity and percent of exports. Mexico's imports of U.S. grapefruit juice in 2005 totaled 252 thousand SSE gallons, the majority of which was single strength which appears to be establishing a small but growing market in Mexico (Table 12).

## Fresh Grapefruit

Since 1990, Mexico's exports of fresh grapefruit to the U.S. have varied from 0 to a record high of 3.4 million pounds in 2004. U.S. imports of fresh grapefruit from Mexico increased by $1,259 \%$ from 254 thousand pounds in 2003 to 3.4 million pounds in 2004 (Table 7).

In 2005, U.S. exports of fresh Grapefruit to Mexico were at a record high of 14.1 million pounds. This figure represents an increase of $331.6 \%$ from the previous year. In 2005, fresh grapefruit accounted for $21.8 \%$ of the total fresh citrus exports to Mexico (Table 8). It is important to note that Mexico's fresh grapefruit imports from the U.S. are small relative to domestic consumption.

## Fresh Tangerines

According to the United Nations, Food \& Agricultural Organization (FAO), the number of tangerine hectares harvested in Mexico increased by $264 \%$, from 7,420 (ha) in

1989 to an estimated 27,000 (ha) in 2005. In addition, Mexico's production of tangerines (including mandarins) has grown by four-fold in the last 16 years. In 2005, FAO estimated Mexico's production of tangerines (including mandarins) at 794 million pounds compared to 197 million pounds in 1989.

In 2004, the U.S. imported 9.6 million pounds of fresh tangerines, an increase of $36.5 \%$ from the 7 million pounds in 2003 (Table 7). There has been a relatively stable number of fresh tangerines imported in the U.S. since 1992. In 2005, U.S. imports of tangerines from Mexico slightly decreased by $5.1 \%$ to 9.1 million pounds.

In 1990, U.S. exports of tangerines to Mexico were 85 thousand pounds. In 2004, the U.S. realized a $696 \%$ increase of tangerine exports to Mexico, but, in 2005, U.S. exports of tangerines to Mexico decreased by $83.2 \%$ to 113.6 thousand pounds.

## Summary and Conclusions

The devastating hurricane seasons in 2004 and 2005 in the U.S as well as the elimination of tariff trade barriers on fresh fruit and grapefruit juice have helped to stimulate Mexico's citrus industry. Plantings of orange and grapefruit trees in Mexico have trended upward since the 1989-90 season resulting in increases in orange, grapefruit and tangerine production. Since 2003, Mexico's OJ shipments to the U.S. have increased, accounting for $16.5 \%$ of U.S. orange imports in 2005. Net U.S. imports of orange juice from Mexico also increased by $385 \%$ in 2005 . Most U.S. fresh citrus imports from Mexico are tangerines and oranges although grapefruit has increased in the past 5 years. The percentage of grapefruit going to processing has also increased, totaling $33.9 \%$ in 2005.

Mexico may become a bigger trading partner with the U.S. in the citrus industry. The growth of Mexico's industry will also depend on the U.S. citrus prices in the U.S. in addition to the increased demand for citrus products in both countries.

Table 1. Orange Trees in Mexico, 1989-90 through 2005-06F.

| Season <br> Dec-Nov | Area Planted | Area Harvested | Bearing trees | Non-Bearing Trees | Total Orange Trees |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ------------(HA)-------------- |  |  |  |  |  |
| 1989-90 | 226,000 | 160,000 | 32,000 | 13,200 | 45,200 |
| 1990-91 | 235,000 | 170,000 | 34,000 | 14,000 | 48,000 |
| 1991-92 | 240,000 | 185,000 | 37,000 | 12,000 | 49,000 |
| 1992-93 | 286,000 | 240,000 | 48,000 | 9,200 | 57,200 |
| 1993-94 | 286,000 | 260,000 | 50,000 | 7,200 | 57,200 |
| 1994-95 | 300,000 | 273,000 | 55,000 | 3,000 | 58,000 |
| 1995-96 | 310,000 | 280,000 | 56,800 | 6,000 | 62,800 |
| 1996-97 | 316,000 | 307,000 | 62,100 | 1,820 | 63,920 |
| 1997-98 | 330,180 | 305,750 | 61,760 | 4,930 | 66,690 |
| 1998-99 | 323,869 | 299,387 | 60,476 | 4,945 | 65,421 |
| 1999-00 | 332,443 | 294,521 | 60,671 | 7,586 | 68,257 |
| 2000-01 | 340,805 | 324,816 | 65,612 | 3,230 | 68,842 |
| 2001-02 | 349,237 | 334,767 | 67,623 | 2,923 | 70,546 |
| 2002-03 | 355,387 | 329,942 | 66,648 | 5,089 | 71,737 |
| 2003-04 | 349,705 | 334,274 | 67,523 | 3,117 | 70,640 |
| 2004-05 | 334,000 | 330,000 | 66,660 | 810 | 67,470 |
| 2005-06F | 334,000 | 328,000 | 66,256 | 1,212 | 67,468 |

[^1]Table 2. Mexico Orange Production, Imports, Exports, Fresh Domestic Consumption and Processing, 1989-90 through 2005-06F.

| Season | Production | Imports | Exports | Fresh Domestic Consumption | Processing | \% Processed from Total Production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1,000 (90 lb/box) |  |  |  |  |  |  |
| 1989-90 | 46,541.6 | 73.5 | 73.5 | 35,028.6 | 11,512.9 | 24.7 |
| 1990-91 | 56,339.8 | 24.5 | 612.4 | 46,198.6 | 9,553.3 | 17.0 |
| 1991-92 | 53,890.2 | 24.5 | 245.0 | 49,995.4 | 3,674.3 | 6.8 |
| 1992-93 | 71,355.6 | 24.5 | 73.5 | 65,182.7 | 6,123.9 | 8.6 |
| 1993-94 | 77,748.9 | 24.5 | 49.0 | 69,395.9 | 8,328.5 | 10.7 |
| 1994-95 | 87,449.1 | 24.5 | 245.0 | 68,857.0 | 18,371.7 | 21.0 |
| 1995-96 | 87,939.0 | 269.5 | 196.0 | 76,989.5 | 11,023.0 | 12.5 |
| 1996-97 | 95,949.1 | 342.9 | 269.5 | 84,999.6 | 11,023.0 | 11.5 |
| 1997-98 | 81,594.7 | 489.9 | 220.5 | 64,717.3 | 17,146.9 | 21.0 |
| 1998-99 | 71,110.6 | 465.4 | 1,224.8 | 59,254.7 | 11,096.5 | 15.6 |
| 1999-00 | 82,917.5 | 783.9 | 269.5 | 73,388.7 | 10,043.2 | 12.1 |
| 2000-01 | 95,165.2 | 759.4 | 465.4 | 85,661.0 | 9,798.2 | 10.3 |
| 2001-02 | 98,472.1 | 661.4 | 440.9 | 90,364.1 | 8,328.5 | 8.5 |
| 2002-03 | 91,466.4 | 955.3 | 171.5 | 90,290.6 | 1,959.6 | 2.1 |
| 2003-04 | 95,557.2 | 440.9 | 318.4 | 90,780.5 | 4,899.1 | 5.1 |
| 2004-05 | 105,330.9 | 489.9 | 489.9 | 89,408.8 | 15,922.1 | 15.1 |
| 2005-06F | 95,532.7 | 440.9 | 489.9 | 85,195.5 | 10,288.1 | 10.8 |

[^2]Table 3. Mexico Orange Juice Production, 1988-89 through 2005-06F.

| Season | Beginning Stocks | Production | Imports | Exports | Domestic Consumption | Ending Stocks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ----------------------Million SSE gallons---------------------- |  |  |  |  |  |  |
| 1988-89 | 0.00 | 46.95 | 0.33 | 45.59 | 1.69 | 0.00 |
| 1989-90 | 0.00 | 41.78 | 0.00 | 39.34 | 2.44 | 0.00 |
| 1990-91 | 0.00 | 54.31 | 0.00 | 52.36 | 1.95 | 0.00 |
| 1991-92 | 0.00 | 19.50 | 0.00 | 9.05 | 2.79 | 6.96 |
| 1992-93 | 6.96 | 30.64 | 0.00 | 37.60 | 2.79 | 6.96 |
| 1993-94 | 6.96 | 50.13 | 0.00 | 54.31 | 2.79 | 0.00 |
| 1994-95 | 0.00 | 90.52 | 0.39 | 83.56 | 3.18 | 4.18 |
| 1995-96 | 4.18 | 62.67 | 0.00 | 58.49 | 4.18 | 4.18 |
| 1996-97 | 4.18 | 62.67 | 0.00 | 58.91 | 4.46 | 4.18 |
| 1997-98 | 4.18 | 97.48 | 0.00 | 89.13 | 4.32 | 8.22 |
| 1998-99 | 8.22 | 63.08 | 0.00 | 62.67 | 4.46 | 4.18 |
| 1999-00 | 4.18 | 57.10 | 0.00 | 52.64 | 4.46 | 4.18 |
| 2000-01 | 4.18 | 56.40 | 1.07 | 52.78 | 4.69 | 4.18 |
| 2001-02 | 4.18 | 47.35 | 0.99 | 42.77 | 5.57 | 4.18 |
| 2002-03 | 4.18 | 11.14 | 0.28 | 5.57 | 5.85 | 1.39 |
| 2003-04 | 1.39 | 27.99 | 0.86 | 22.33 | 6.52 | 1.39 |
| 2004-05 | 1.39 | 90.52 | 0.86 | 81.91 | 6.68 | 4.18 |
| 2005-06F | 4.18 | 58.49 | 0.86 | 52.39 | 6.96 | 4.18 |

Source: USDA-FAS
F: Forecast

Table 4. U.S. imports of orange juice, by form, from Mexico, 1990 through 2005.

| Year | U.S. OJ Imports from Mexico |  |  |  | Mexico <br> \% of U.S. Total | TOTAL U.S. OJ Imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FCOJ | NFC | Other | Total |  |  |
| ------------------- SSE gallons ------------------- |  |  |  |  | --\%-- | -SSE gallons- |
| 1990 | 44,807,068 | 14,021,200 | 4,440,581 | 63,268,849 | 13.4 | 472,106,040 |
| 1991 | 46,488,511 | 2,856,351 | 0 | 49,344,862 | 15.1 | 326,829,244 |
| 1992 | 5,821,624 | 765,210 | 1,321 | 6,588,155 | 2.4 | 276,881,566 |
| 1993 | 20,312,018 | 624,247 | 1,969 | 20,938,234 | 6.0 | 348,619,440 |
| 1994 | 43,596,068 | 2,288,205 | 21,364 | 45,905,637 | 11.8 | 387,809,136 |
| 1995 | 63,581,458 | 5,092,931 | 35,416 | 68,709,805 | 36.4 | 188,646,067 |
| 1996 | 46,129,714 | 3,551,054 | 16,850 | 49,697,618 | 17.6 | 281,604,403 |
| 1997 | 48,285,607 | 2,653,191 | 6,122 | 50,944,920 | 20.0 | 254,212,897 |
| 1998 | 66,486,505 | 1,282,507 | 18,949 | 67,787,961 | 22.7 | 299,054,084 |
| 1999 | 45,439,966 | 2,702,244 | 475,431 | 48,617,641 | 13.7 | 354,833,557 |
| 2000 | 42,214,449 | 1,263,177 | 7,834 | 43,485,460 | 13.6 | 320,254,824 |
| 2001 | 36,382,710 | 1,091,397 | 18,951 | 37,493,058 | 15.5 | 242,228,112 |
| 2002 | 34,827,846 | 2,278,664 | 12,200 | 37,118,710 | 19.4 | 191,373,578 |
| 2003 | 5,122,978 | 800,034 | 7,988 | 5,931,000 | 2.1 | 284,536,563 |
| 2004 | 11,297,978 | 1,574,512 | 6,115 | 12,878,605 | 5.4 | 238,069,743 |
| 2005 | 56,068,380 | 2,536,762 | 95,416 | 58,700,559 | 16.5 | 355,506,130 |

[^3]Table 5. U.S. exports of orange juice, by form, to Mexico, 1990 through 2005.

| Year | U.S. OJ Exports to Mexico |  |  |  | $\begin{aligned} & \text { Mexico } \\ & \% \text { of } \\ & \text { U.S. } \\ & \text { Total } \\ & \hline \end{aligned}$ | TOTAL U.S. OJ Exports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FCOJ | SSOJ | Other | Total |  |  |
|  | -SSE gallons-------------------- |  |  |  | --\%-- | -SSE gallons- |
| 1990 | 443,963 | 0 | 32,225 | 476,188 | 0.5 | 93,348,329 |
| 1991 | 129,110 | 0 | 89,506 | 218,616 | 0.2 | 96,886,395 |
| 1992 | 296,560 | 0 | 244,751 | 541,311 | 0.5 | 105,090,802 |
| 1993 | 65,872 | 0 | 270,882 | 336,754 | 0.3 | 114,664,877 |
| 1994 | 120,927 | 230,388 | 438,855 | 790,170 | 0.7 | 108,637,122 |
| 1995 | 86,832 | 34,959 | 160,576 | 282,367 | 0.2 | 116,999,941 |
| 1996 | 643,869 | 27,325 | 384,983 | 1,056,177 | 0.9 | 117,445,316 |
| 1997 | 181,348 | 89,020 | 493,396 | 763,764 | 0.5 | 149,924,958 |
| 1998 | 194,421 | 180,420 | 1,470,837 | 1,845,678 | 1.2 | 148,305,948 |
| 1999 | 221,278 | 83,667 | 1,702,483 | 2,007,428 | 1.3 | 150,033,446 |
| 2000 | 856,863 | 103,670 | 2,717,946 | 3,678,479 | 2.6 | 142,647,579 |
| 2001 | 177,035 | 173,634 | 867,328 | 1,217,997 | 1.0 | 118,714,754 |
| 2002 | 129,953 | 255,046 | 905,208 | 1,290,207 | 0.7 | 177,402,006 |
| 2003 | 264,668 | 365,260 | 831,690 | 1,461,618 | 1.3 | 116,547,979 |
| 2004 | 141,863 | 387,020 | 469,625 | 998,508 | 0.8 | 124,529,108 |
| 2005 | 297,070 | 410,347 | 257,217 | 964,634 | 0.8 | 115,498,691 |

[^4]Table 6. U.S. Imports and Exports of Orange Juice, 1990 through 2005.

|  | MEXICO |  |  | Total U.S. |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | U.S. <br> Imports <br> from <br> Mexico | U.S. <br> Exports <br> to <br> Mexico | Net U.S <br> imports <br> from <br> Mexico | Imports | Exports | Net Imports |

SSE gallons

| 1990 | 63,268,849 | 476,188 | 62,792,661 | 472,106,040 | 93,348,329 | 378,757,711 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1991 | 49,344,862 | 218,616 | 49,126,246 | 326,829,244 | 96,886,395 | 229,942,849 |
| 1992 | 6,588,155 | 541,311 | 6,046,844 | 276,881,566 | 105,090,802 | 171,790,764 |
| 1993 | 20,938,234 | 336,754 | 20,601,480 | 348,619,440 | 114,664,877 | 233,954,563 |
| 1994 | 45,905,637 | 790,170 | 45,115,467 | 387,803,136 | 108,637,122 | 279,166,014 |
| 1995 | 68,709,805 | 282,367 | 68,427,438 | 188,646,067 | 116,999,941 | 71,646,126 |
| 1996 | 49,697,618 | 1,056,177 | 48,641,441 | 281,604,403 | 117,445,316 | 164,159,087 |
| 1997 | 50,944,920 | 763,764 | 50,181,156 | 254,212,897 | 149,924,958 | 104,287,939 |
| 1998 | 67,787,961 | 1,845,678 | 65,942,283 | 299,054,084 | 148,305,948 | 150,748,136 |
| 1999 | 48,617,641 | 2,007,428 | 46,610,213 | 354,833,557 | 150,033,446 | 204,800,111 |
| 2000 | 43,485,460 | 3,678,479 | 39,806,981 | 320,254,824 | 142,647,579 | 177,607,245 |
| 2001 | 37,493,058 | 1,217,997 | 36,275,061 | 242,228,112 | 118,714,754 | 123,513,358 |
| 2002 | 37,118,710 | 1,290,207 | 35,828,503 | 191,373,578 | 177,402,006 | 13,971,572 |
| 2003 | 5,931,000 | 1,461,618 | 4,469,382 | 284,536,563 | 116,547,979 | 167,988,584 |
| 2004 | 12,878,605 | 998,508 | 11,880,097 | 238,069,743 | 124,529,108 | 113,540,635 |
| 2005 | 58,700,559 | 964,634 | 57,735,925 | 355,506,130 | 115,498,691 | 240,007,439 |

Source: U.S. Department of Commerce.

Table 7. U.S. imports of fresh grapefruit, tangerines, and oranges from Mexico, 1990 through 2005.

| Year | Grapefruit | Tangerines and Mandarins | Oranges | TOTAL <br> Fresh <br> Imports <br> From <br> Mexico | \% <br> Fresh <br> From <br> Mexico | Total U.S. Fresh Citrus Imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -----------------------------------------------------------1bs |  |  |  |  |  |  |
| 1990 | 73,519 | 27,245,265 | 7,552,974 | 34,871,758 | 39.6 | 87,952,031 |
| 1991 | 1,313,397 | 19,259,208 | 57,432,803 | 78,005,408 | 36.8 | 211,720,114 |
| 1992 | 0 | 17,027,365 | 4,824,411 | 21,851,776 | 25.7 | 85,119,030 |
| 1993 | 0 | 8,916,125 | 3,753,946 | 12,670,071 | 14.2 | 89,402,040 |
| 1994 | 56,001 | 8,904,937 | 3,585,572 | 12,546,510 | 11.3 | 111,240,191 |
| 1995 | 0 | 8,450,734 | 17,534,013 | 25,984,747 | 22.6 | 115,176,295 |
| 1996 | 0 | 5,722,943 | 16,827,834 | 22,550,777 | 15.9 | 141,862,990 |
| 1997 | 0 | 9,255,297 | 23,061,479 | 32,316,776 | 17.1 | 189,436,133 |
| 1998 | 0 | 6,313,747 | 17,837,303 | 24,151,050 | 12.0 | 201,560,061 |
| 1999 | 0 | 8,719,993 | 112,819,849 | 121,539,842 | 27.1 | 447,788,300 |
| 2000 | 1,429 | 9,551,694 | 17,179,690 | 26,732,813 | 7.9 | 337,101,794 |
| 2001 | 0 | 8,605,158 | 33,609,194 | 42,214,352 | 12.2 | 344,670,855 |
| 2002 | 72,642 | 8,080,650 | 36,301,602 | 44,454,894 | 14.0 | 317,437,562 |
| 2003 | 254,083 | 7,021,911 | 14,324,971 | 21,600,965 | 5.6 | 383,047,867 |
| 2004 | 3,454,231 | 9,591,816 | 24,476,938 | 37,522,985 | 10.9 | 345,464,830 |
| 2005 | 1,115,722 | 9,101,149 | 23,555,721 | 33,772,591 | 8.6 | 394,456,327 |

Source: U.S. Department of Commerce.

Table 8. U.S. exports of fresh oranges, grapefruit and tangerines to Mexico, 1990 through 2005.

| Year | Oranges | Grapefruit | Tangerines | TOTAL <br> Fresh Citrus <br> Exports to Mexico | Mexico \% of Total Exports | TOTAL U.S. Fresh Citrus Exports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ------------------------------------------------- |  |  |  |  |  |  |
| 1990 | 3,404,891 | 345,635 | 85,202 | 3,835,728 | 0.2 | 1,877,670,986 |
| 1991 | 266,039 | 76,351 | 184,959 | 527,349 | 0.0 | 1,532,873,325 |
| 1992 | 164,092 | 48,452 | 2,762 | 215,306 | 0.0 | 995,284,146 |
| 1993 | 252,713 | 170,660 | 50,900 | 474,273 | 0.0 | 2,225,716,054 |
| 1994 | 3,389,560 | 391,744 | 0 | 3,781,304 | 0.3 | 1,102,613,162 |
| 1995 | 3,014,262 | 3,825,969 | 3,726 | 6,843,957 | 0.3 | 2,383,837,547 |
| 1996 | 8,568,839 | 2,304,239 | 0 | 10,873,078 | 0.5 | 2,229,801,786 |
| 1997 | 11,594,730 | 2,599,129 | 107,707 | 14,301,566 | 0.6 | 2,471,901,505 |
| 1998 | 15,047,732 | 796,808 | 21,429 | 15,865,969 | 0.7 | 2,278,419,959 |
| 1999 | 13,998,702 | 303,289 | 170,760 | 14,472,751 | 1.0 | 1,487,890,253 |
| 2000 | 19,364,463 | 165,606 | 168,848 | 19,698,917 | 0.9 | 2,135,513,799 |
| 2001 | 26,156,512 | 622,886 | 33,563 | 26,812,961 | 1.3 | 2,052,886,044 |
| 2002 | 36,555,232 | 1,220,670 | 421,397 | 38,197,299 | 1.8 | 2,085,890,700 |
| 2003 | 59,754,502 | 694,245 | 310,904 | 60,759,651 | 2.7 | 2,268,258,171 |
| 2004 | 29,415,619 | 3,271,824 | 678,707 | 33,366,150 | 1.6 | 2,125,384,347 |
| 2005 | 50,391,916 | 14,122,412 | 113,658 | 64,627,986 | 3.6 | 1,789,366,780 |

Source: U.S. Department of Commerce

Table 9. Grapefruit Trees in Mexico, 1989-90 through 2005-06F.

| Season <br> Dec-Nov | Area Planted | Area Harvested | Bearing trees | Non-Bearing Trees | Total Grapefruit Trees |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ------------(HA)----------- |  |  |  |  |  |
| 1989-90 | 5,000 | 4,000 | 864 | 312 | 1,176 |
| 1990-91 | 6,000 | 4,000 | 860 | 325 | 1,185 |
| 1991-92 | 6,000 | 5,000 | 870 | 300 | 1,170 |
| 1992-93 | 8,000 | 6,000 | 1,020 | 340 | 1,360 |
| 1993-94 | 9,000 | 8,000 | 1,513 | 70 | 1,583 |
| 1994-95 | 9,000 | 8,000 | 1,496 | 87 | 1,583 |
| 1995-96 | 11,200 | 10,213 | 1,920 | 185 | 2,105 |
| 1996-97 | 11,592 | 9,893 | 1,860 | 320 | 2,180 |
| 1997-98 | 11,508 | 9,590 | 1,803 | 359 | 2,162 |
| 1998-99 | 12,000 | 9,600 | 1,804 | 451 | 2,255 |
| 1999-00 | 13,000 | 12,800 | 2,406 | 376 | 2,782 |
| 2000-01 | 14,626 | 13,222 | 2,485 | 263 | 2,748 |
| 2001-02 | 15,877 | 14,368 | 2,701 | 284 | 2,985 |
| 2002-03 | 17,039 | 14,088 | 2,648 | 554 | 3,202 |
| 2003-04 | 18,000 | 16,778 | 3,154 | 267 | 3,421 |
| 2004-05 | 18,210 | 16,700 | 3,139 | 283 | 3,422 |
| 2005-06F | 18,230 | 16,000 | 3,008 | 419 | 3,427 |

Source: USDA-FAS
F: Forecast

Table 10. Mexico Grapefruit Production, Imports, Exports, Fresh Domestic Consumption and Processing, 1989-90 through 2005-06F.

| Season | Production | Imports | Exports | Fresh <br> Domestic Consumption | Processing | \% Processed from Total Production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ----------1,000 (85lb/box)---------- |  |  |  |  |  | ----\%--- |
| 1989-90 | 2,464.0 | 0.0 | 51.9 | 1,634.0 | 778.1 | 31.6 |
| 1990-91 | 2,593.6 | 0.0 | 25.9 | 1,711.8 | 855.9 | 33.0 |
| 1991-92 | 2,853.0 | 0.0 | 25.9 | 2,049.0 | 778.1 | 27.3 |
| 1992-93 | 3,060.5 | 0.0 | 25.9 | 2,178.7 | 855.9 | 28.0 |
| 1993-94 | 2,904.9 | 0.0 | 25.9 | 1,997.1 | 881.8 | 30.4 |
| 1994-95 | 4,149.8 | 25.9 | 25.9 | 3,242.1 | 907.8 | 21.9 |
| 1995-96 | 6,354.4 | 25.9 | 77.8 | 5,265.1 | 1,037.5 | 16.3 |
| 1996-97 | 5,757.9 | 25.9 | 77.8 | 4,979.8 | 881.8 | 15.3 |
| 1997-98 | 4,357.3 | 25.9 | 77.8 | 3,657.0 | 648.4 | 14.9 |
| 1998-99 | 4,279.5 | 25.9 | 103.7 | 3,579.2 | 622.5 | 14.5 |
| 1999-00 | 6,224.8 | 233.4 | 51.9 | 5,576.3 | 830.0 | 13.3 |
| 2000-01 | 8,299.7 | 233.4 | 181.6 | 7,314.1 | 881.8 | 10.6 |
| 2001-02 | 7,703.1 | 207.5 | 129.7 | 6,873.2 | 907.8 | 11.8 |
| 2002-03 | 7,288.1 | 311.2 | 181.6 | 6,406.3 | 1,011.5 | 13.9 |
| 2003-04 | 10,608.0 | 233.4 | 259.4 | 8,792.5 | 1,789.6 | 16.9 |
| 2004-05 | 9,337.1 | 233.4 | 285.3 | 6,380.4 | 2,904.9 | 31.1 |
| 2005-06F | 8,559.0 | 233.4 | 207.5 | 5,680.1 | 2,904.9 | 33.9 |

## Source: USDA-FAS

F: Forecast

Table 11.U.S. imports of grapefruit juice, by form, from Mexico, 1990 through 2005.

| Year | U.S. GJ Imports from Mexico |  |  | Mexico \% of Total | TOTAL U.S. GJ Imports |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | NFC | Other | Total |  |  |
|  | -------------SSE gallons------------ |  |  | --\%-- | -SSE gallons- |
| 1990 | 9,949 | 970,736 | 980,685 | 19.3 | 5,074,117 |
| 1991 | 1,685 | 948,200 | 949,885 | 49.3 | 1,924,872 |
| 1992 | 0 | 1,656,198 | 1,656,198 | 50.6 | 3,275,323 |
| 1993 | 0 | 657,960 | 657,960 | 37.6 | 1,750,318 |
| 1994 | 0 | 156,727 | 156,727 | 19.8 | 792,841 |
| 1995 | 0 | 43,227 | 43,227 | 4.9 | 888,058 |
| 1996 | 2,852 | 7,641 | 10,493 | 2.1 | 505,721 |
| 1997 | 4,753 | 333 | 5,086 | 2.6 | 195,357 |
| 1998 | 7,051 | 951 | 8,002 | 4.4 | 181,766 |
| 1999 | 18,588 | 912,736 | 931,324 | 51.3 | 1,816,880 |
| 2000 | 1,426 | 298,165 | 299,591 | 8.1 | 3,706,568 |
| 2001 | 28,732 | 0 | 28,732 | 4.4 | 658,719 |
| 2002 | 0 | 26,227 | 26,227 | 7.4 | 356,285 |
| 2003 | 9,168 | 105,547 | 114,715 | 24.5 | 468,904 |
| 2004 | 1,134,497 | 3,840,630 | 4,975,127 | 69.2 | 7,193,364 |
| 2005 | 133,819 | 4,233,561 | 4,367,381 | 69.5 | 6,282,722 |

[^5]Table 12. U.S. exports of Grapefruit juice, by form, to Mexico, 1990 through 2005.

| Year | U.S. GJ Exports to Mexico |  |  |  | Mexico \% of Total | TOTAL U.S. GJ Exports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Conc. GJ | SSGJ | Other GJ | Total |  |  |
|  | ---- | - - SSE | allons - | - - | --\%-- | -SSE gallons- |
| 1990 | 7,249 | 0 | 12,751 | 20,000 | 0.1 | 16,321,487 |
| 1991 | 0 | 0 | 6,766 | 6,766 | 0.0 | 16,752,038 |
| 1992 | 0 | 0 | 20,770 | 20,770 | 0.1 | 23,358,043 |
| 1993 | 17,187 | 0 | 95,202 | 112,389 | 0.5 | 21,432,949 |
| 1994 | 12,979 | 0 | 164,388 | 177,367 | 1.0 | 18,500,115 |
| 1995 | 142,202 | 0 | 70,389 | 212,591 | 1.0 | 21,493,488 |
| 1996 | 85,889 | 0 | 46,078 | 131,967 | 0.6 | 23,726,469 |
| 1997 | 78,425 | 0 | 4,148 | 82,573 | 0.4 | 21,572,239 |
| 1998 | 184,732 | 0 | 31,124 | 215,856 | 1.3 | 17,257,541 |
| 1999 | 302,042 | 0 | 29,685 | 331,727 | 1.3 | 26,186,190 |
| 2000 | 1,095,720 | 0 | 88,132 | 1,183,852 | 3.3 | 35,930,798 |
| 2001 | 48,526 | 0 | 29,955 | 78,481 | 0.2 | 36,772,625 |
| 2002 | 28,562 | 264 | 0 | 28,826 | 0.1 | 36,907,779 |
| 2003 | 8,066 | 42,386 | 0 | 50,452 | 0.1 | 41,252,722 |
| 2004 | 34,016 | 207,351 | 0 | 241,367 | 0.6 | 40,445,801 |
| 2005 | 28,372 | 224,102 | 0 | 252,474 | 1.3 | 19,626,005 |

[^6]
[^0]:    * Prepared by Juan D. Castro-Anzola, Graduate Research Assistant, Food and Resource Economics Department, University of Florida, Gainesville, Florida, March 22, 2006. (Staff Report 2006-2).
    ${ }^{1}$ Florida Agricultural Statistics Service (FASS), Citrus April 2005 Forecast.

[^1]:    Source: USDA-FAS
    F: Forecast

[^2]:    Source: USDA-FAS
    F: Forecast

[^3]:    Source: US Department of Commerce

[^4]:    Source: Department of Commerce

[^5]:    Source: U.S. Department of Commerce

[^6]:    Source: U.S. Department of Citrus

