# World Apple Juice Situation: <br> Global Apple Juice Production and Trade <br> to Remain Strong in 2002/03 


#### Abstract

SUMMARY World production of apple juice will remain strong in 2002/03. Estimated at 915,200 metric tons ( $70 / 71$ degrees brix equivalent), global apple juice production in 2002/03 reflects a projected record production in China, the world's top producer. On the other hand, production of apple juice in other major producers, such as Poland and the United States, is expected to decrease. Output in 2002/03 in the United States is estimated to decline for the fourth consecutive season.

Global apple juice trade is expected to reach record levels in 2002/03. Selected countries' exports are estimated at nearly 840,000 tons while imports are projected to reach close to $\mathbf{7 4 0 , 0 0 0}$ tons. Apple juice shipments from China are likely to continue their upward trend and reach a record 280,000 tons in 2002/03. Global imports of apple juice will also continue strong as demand from the two major importing countries, the United States and Germany, is expected to increase.


## Global Apple Juice Production Expected to Continue Strong in 2002/03

Million Metric Tons, 70/71 Degrees Brix Equivalent


[^0]
## PRODUCTION

Expected record production in China in the wake of strong global apple juice production in 2002/03

Combined apple juice production in major producing and trading countries in 2002/03 is estimated at 915,200 tons, slightly above the $2001 / 02$ volume. The increase mainly reflects anticipated record production in China, the world's top apple juice producer. China's 2002/03 apple juice production, estimated at a record 300,000 tons, is up 20 percent from last season and more than double the volume produced three seasons ago. Moreover, China's share of world apple juice production has increased from 15 percent in 1998/99 to more than 30 percent in 2002/03. The steady expansion in China's apple juice production mirrors increased domestic fruit supplies as well as growing apple juice demand in international markets.

> China's Share of Global Apple Juice Production Expanded Considerably in Recent Years


Share of Production in 1998/99


Share of Production Forecast
in 2002/03

Source: USDA/FAS Attache Reports and USDA National Agricultural Statistics Service. F=Forecast

China's apple juice production is gradually shifting to the western regions of the country, mainly to Shaanxi province. Typically, Shandong province has been the center of apple juice production in China, accounting for about 50 percent of the country's annual output. However, during the last few years, many apple farmers in Shandong have been cutting down apple trees and switching to other fruits in search of better returns. On the other hand, fruit juice plants in Shaanxi are still introducing new processing equipment and expanding their investments. As
such, Shaanxi province is expected to soon become the largest apple juice-producing province in China.

The growth of China's apple juice industry is limited by a lack of fruit varieties that are suitable for processing. Most of China's apple juice is a low acid product, processed from leftover fresh market apples. However, high acid apple juice is greatly demanded in world markets such as Japan and European countries. Responding to growing global demand, China is planting more high acid apple varieties that are more suitable for processing into juice. High acid apple varieties are being introduced from countries such as Australia.

## U.S. apple juice production declining trend expected to continue in 2002/03

U.S. apple juice production in 2002/03 is expected to continue its downturn trend. At 110,000 tons, 2002/03 U.S. apple juice production will likely decline for the fourth consecutive year. The amount of processing apples in 2002/03 in the United States is expected to decline 12 percent to 1.5 million tons. Reduced supplies of processing apples, less attractive prices for processing fruit, and increased imports of lowered-priced apple juice have been hampering U.S. apple juice production in recent years.

## U.S. Apple Juice Production <br> Expected to Continue Its Declining Trend in 2002/03

Thousand Metric Tons, 70/71 Degrees Brix Equivalent


[^1]In the United States, few apples are grown particularly for juicing. Most of the apples directed for juice are culled fruit from fresh packing lines. Moreover, returns or profits to growers from processing apples are generally lower than fruit directed to the fresh market. During the last 10 seasons, the share of the U.S. apple crop processed into juice and cider has remained at about 20 percent.

## U.S. Imports of Apple Juice Expected to Continue to Increase in 2002/03

Thousand Metric Tons, 70/71 Degrees Brix Equivalent


Source: U.S. Department of Commerce, Bureau of the Census. F=Forecast

## TRADE

## World apple juice trade growing rapidly

Global apple juice trade is expected to reach record levels in 2002/03. Selected countries' exports are estimated at nearly 840,000 tons while imports are projected to reach about 740,000 tons. Apart from being used for blending with other fruit juices, apple juice is also used as an additive in cosmetics and various types of medicines. Germany and the United States, the two largest importing countries, are expected to import 400,000 tons and 260,000 tons of apple juice in 2002/03, respectively. China and Poland are the two largest exporters. China mainly exports low acid apple juice concentrated and Poland ships mostly medium and high acid apple juice. High acid apple juice is in particularly high demand in Japan and in markets in Europe.

## World Trade in Apple Juice Growing Rapidly



Source: USDA/FAS Attache Reports and USDA National Agricultural Statistics Service.
$\mathbf{F}=\mathrm{Forecast}$

The United States will remain a strong consumer of imported apple juice
The United States is expected to remain a net importer as U.S. import demand for apple juice continues its upward trend. Apple juice imports in the United States in 2002/03 are estimated at a record 260,000 tons. U.S. imports of apple juice are mostly concentrated non-frozen. Argentina, Chile, and China, are the major suppliers of apple juice to the United States. Apple juice imports from Argentina and China are on average the lowest priced options to U.S. importers. In response to industry complaints about the surge of low-priced apple juice from China, on May 15, 2000, the United States imposed antidumping duties on all imports of Chinese non- frozen apple juice concentrate. The duties assessed range from 9 percent to 52 percent. The antidumping duties will be in effect until 2005.

## China's apple juice shipments displacing exports from traditional suppliers

Apple juice shipments from China are likely to continue their upward trend and reach a record 280,000 tons in 2002/03. In recent years, increased apple juice production in China has been driven by large fruit supplies and by increased export demand. Moreover, China can supply apple juice at relatively lower prices than its closer competitors. Low acid concentrated notfrozen apple juice continues to be the main processed apple product in China. The main export destinations for China's apple juice in 2002/03 are expected to remain the United States and countries in the European Union.

China exports low acid apple juice, which is mainly blended with high acid juice by the food and beverage industries in many importing countries. China's main obstacle for continuing expansion of apple juice exports is a general lack of suitable apple varieties that can produce high acid juice. Because the majority of the apples in China are produced for fresh consumption, most Chinese apples are of low acid content, which produces low acid juice. Major apple producing provinces such as Shandong, Shaanxi, and Gansu provinces are simply unable to provide high acid apples in adequate quantities. In view of the lucrative international trade for high acid apple juice, efforts have started in China to introduce high acid apple varieties that are more suitable for processing.

## Chinese Apple Juice Exports Displacing Shipments from Traditional World Suppliers


(For further information on supply, distribution, and trade, contact Samuel Rosa at (202) 7206086).

| TABLE 1 <br> APPLE JUICE: PRODUCTION, SUPPLY, AND UTILIZATION <br> IN SELECTED COUNTRIES <br> (Metric Tons at 70/71 Degrees Brix Equivalent) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country/ 1/ <br> Mkting Year | Beginning Stocks | Production | Imports | Total Supply | Exports | Domestic Consumption | Ending Stocks |
| NORTHERN HEMISPHERE COUNTRIES |  |  |  |  |  |  |  |
| China |  |  |  |  |  |  |  |
| 1999/00 | 0 | 125,000 | 681 | 125,681 | 70,710 | 32,971 | 22,000 |
| 2000/01 | 22,000 | 220,000 | 594 | 242,594 | 177,147 | 21,000 | 44,447 |
| 2001/02 | 44,447 | 250,000 | 622 | 295,069 | 264,555 | 23,514 | 7,000 |
| 2002/03 F | 7,000 | 300,000 | 600 | 307,600 | 280,000 | 25,600 | 2,000 |
| Germany |  |  |  |  |  |  |  |
| 1999/00 | 128,903 | 98,560 | 266,658 | 494,121 | 76,048 | 290,981 | 127,092 |
| 2000/01 | 127,092 | 122,199 | 315,396 | 564,687 | 88,819 | 284,468 | 191,400 |
| 2001/02 | 191,400 | 63,000 | 363,551 | 617,951 | 118,000 | 309,951 | 190,000 |
| 2002/03 F | 190,000 | 69,000 | 400,000 | 659,000 | 140,000 | 334,000 | 185,000 |
| Hungary |  |  |  |  |  |  |  |
| 1999/00 | 0 | 44,000 | 3,000 | 47,000 | 33,000 | 14,000 | 0 |
| 2000/01 | 0 | 82,000 | 15,000 | 97,000 | 72,000 | 25,000 | 0 |
| 2001/02 | 0 | 70,000 | 10,000 | 80,000 | 50,000 | 30,000 | 0 |
| 2002/03 F | 0 | 50,000 | 10,000 | 60,000 | 32,000 | 28,000 | 0 |
| Italy |  |  |  |  |  |  |  |
| 1999/00 | 0 | 65,000 | 39,000 | 104,000 | 100,000 | 4,000 | 0 |
| 2000/01 | 0 | 71,000 | 35,000 | 106,000 | 102,000 | 4,000 | 0 |
| 2001/02 | 0 | 62,000 | 45,000 | 107,000 | 92,000 | 5,000 | 10,000 |
| 2002/03 F | 10,000 | 60,000 | 40,000 | 110,000 | 95,000 | 5,000 | 10,000 |
| Poland |  |  |  |  |  |  |  |
| 1999/00 | 0 | 80,000 | 21,000 | 101,000 | 84,000 | 10,000 | 7,000 |
| 2000/01 | 7,000 | 190,000 | 11,084 | 208,084 | 183,000 | 21,084 | 4,000 |
| 2001/02 | 4,000 | 205,000 | 6,230 | 215,230 | 187,000 | 23,230 | 5,000 |
| 2002/03 F | 5,000 | 170,000 | 8,000 | 183,000 | 160,000 | 21,000 | 2,000 |
| Spain |  |  |  |  |  |  |  |
| 1999/00 | 1,200 | 21,000 | 16,500 | 38,700 | 25,500 | 10,500 | 2,700 |
| 2000/01 | 2,700 | 17,700 | 12,300 | 32,700 | 17,500 | 13,200 | 2,000 |
| 2001/02 | 2,000 | 18,700 | 11,600 | 32,300 | 17,000 | 13,400 | 1,900 |
| 2002/03 F | 1,900 | 17,600 | 12,600 | 32,100 | 16,500 | 13,600 | 2,000 |
| United States 2/ |  |  |  |  |  |  |  |
| 1999/00 | 0 | 152,397 | 224,678 | 377,075 | 6,838 | 370,237 | 0 |
| 2000/01 | 0 | 143,892 | 226,311 | 370,203 | 5,371 | 364,832 | 0 |
| 2001/02 | 0 | 119,912 | 257,525 | 377,437 | 5,102 | 372,335 | 0 |
| 2002/03 F | 0 | 110,000 | 260,000 | 370,000 | 4,000 | 367,000 | 0 |
| SUBTOTAL NORTHERN HEMISPHERE COUNTRIES |  |  |  |  |  |  |  |
| 1999/00 | 130,103 | 585,957 | 571,517 | 1,287,577 | 396,096 | 732,689 | 158,792 |
| 2000/01 | 158,792 | 846,791 | 615,685 | 1,621,268 | 645,837 | 733,584 | 241,847 |
| 2001/02 | 241,847 | 788,612 | 694,528 | 1,724,987 | 733,657 | 777,430 | 213,900 |
| 2002/03 F | 213,900 | 776,600 | 731,200 | 1,721,700 | 727,500 | 794,200 | 201,000 |


| TABLE 1 <br> APPLE JUICE: PRODUCTION, SUPPLY, AND UTILIZATION <br> IN SELECTED COUNTRIES <br> (Metric Tons at 70/71 Degrees Brix Equivalent) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { Country/ 1/ } \\ & \text { Mkting Year } \\ & \hline \end{aligned}$ | Beginning Stocks | Production | Imports | Total Supply | Exports | $\begin{gathered} \text { Domestic } \\ \text { Consumption } \end{gathered}$ | Ending Stocks |
| SOUTHERN HEMISPHERE COUNTRIES |  |  |  |  |  |  |  |
| Argentina |  |  |  |  |  |  |  |
| 1999/00 | 3,154 | 42,328 | 4,638 | 50,120 | 37,574 | 8,500 | 4,046 |
| 2000/01 | 4,046 | 83,543 | 1,585 | 89,174 | 69,449 | 8,000 | 11,725 |
| 2001/02 | 11,725 | 38,000 | 108 | 49,833 | 14,590 | 6,000 | 29,243 |
| 2002/03 F | 29,243 | 47,000 | 100 | 76,343 | 30,000 | 7,000 | 39,343 |
| Chile |  |  |  |  |  |  |  |
| 1999/00 | 248 | 35,800 | 0 | 36,048 | 35,307 | 500 | 241 |
| 2000/01 | 241 | 54,335 | 0 | 54,576 | 53,743 | 500 | 333 |
| 2001/02 | 333 | 43,200 | 0 | 43,533 | 42,525 | 500 | 508 |
| 2002/03 F | 508 | 44,300 | 0 | 44,808 | 43,700 | 500 | 608 |
| New Zealand |  |  |  |  |  |  |  |
| 1999/00 | 0 | 19,947 | 400 | 20,347 | 11,537 | 8,810 | 0 |
| 2000/01 | 0 | 16,000 | 400 | 16,400 | 9,300 | 7,100 | 0 |
| 2001/02 | 0 | 14,450 | 1,700 | 16,150 | 9,050 | 7,100 | 0 |
| 2002/03 F | 0 | 17,300 | 200 | 17,500 | 10,000 | 7,500 | 0 |
| South Africa |  |  |  |  |  |  |  |
| 1999/00 | 0 | 27,390 | 5,575 | 32,965 | 25,835 | 7,130 | 0 |
| 2000/01 | 0 | 23,960 | 5,900 | 29,860 | 22,000 | 7,860 | 0 |
| 2001/02 | 0 | 26,250 | 6,000 | 32,250 | 23,000 | 9,250 | 0 |
| 2002/03 F | 0 | 30,000 | 5,900 | 35,900 | 25,000 | 10,900 | 0 |
| SUBTOTAL SOUTHERN HEMISPHERE COUNTRIES |  |  |  |  |  |  |  |
| 1999/00 | 3,402 | 125,465 | 10,613 | 139,480 | 110,253 | 24,940 | 4,287 |
| 2000/01 | 4,287 | 177,838 | 7,885 | 190,010 | 154,492 | 23,460 | 12,058 |
| 2001/02 | 12,058 | 121,900 | 7,808 | 141,766 | 89,165 | 22,850 | 29,751 |
| 2002/03 F | 29,751 | 138,600 | 6,200 | 174,551 | 108,700 | 25,900 | 39,951 |
| TOTAL SELECTED COUNTRIES |  |  |  |  |  |  |  |
| 1999/00 | 133,505 | 711,422 | 582,130 | 1,427,057 | 506,349 | 757,629 | 163,079 |
| 2000/01 | 163,079 | 1,024,629 | 623,570 | 1,811,278 | 800,329 | 757,044 | 253,905 |
| 2001/02 | 253,905 | 910,512 | 702,336 | 1,866,753 | 822,822 | 800,280 | 243,651 |
| 2002/03 F | 243,651 | 915,200 | 737,400 | 1,896,251 | 836,200 | 820,100 | 240,951 |

1/ Northern Hemisphere marketing years are July-June for all countries except Italy where the
marketing year is January-December. Southern Hemisphere marketing year is January-December except
New Zealand where marketing year is October-September.
2/ U.S. stock figures not available. U.S. apple juice production is estimated using the proportion of the fresh apple crop that is processed into juice and cider. U.S. export and import data is from U.S. Dept. of Commerce.
Note: Data for Mexico, Austria, Bulgaria,, France, and Australia has been discontinued, as FAS no longer requires reporting on apple juice for those countries.
E= Estimate
Source: U.S. Department. of Commerce, Bureau of Census; USDA Attache reports and USDA/FAS estimates.

| TABLE 2 <br> U.S. APPLE JUICE IMPORTS <br> MARKETING YEARS 1997/98-2001/02 <br> (JULY-JUNE) <br> METRIC TONS, 70/71 DEGREES BRIX EQUIVALENT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of Origin | Rank by <br> Volume 1/ | 1997/98 | 1998/99 | 1999/00 | 2000/01 | 2001/02 | Percent Changed 2/ |
| Argentina | 1 | 65,303 | 60,646 | 62,768 | 46,422 | 71,283 | 54\% |
| China | 2 | 21,914 | 43,403 | 29,126 | 35,518 | 52,528 | 48\% |
| Chile | 3 | 19,971 | 31,583 | 42,268 | 35,020 | 39,156 | 12\% |
| Germany | 4 | 19,908 | 20,291 | 17,359 | 23,466 | 29,334 | 25\% |
| Hungary | 5 | 19,179 | 6,273 | 2,092 | 11,014 | 11,982 | 9\% |
| Italy | 6 | 9,036 | 21,377 | 18,668 | 28,081 | 9,807 | -65\% |
| South Africa | 7 | 7,513 | 9,972 | 15,661 | 6,079 | 7,250 | 19\% |
| Turkey | 8 | 1,001 | 4,827 | 7,968 | 9,061 | 7,129 | -21\% |
| Brazil | 9 | 3,796 | 3,738 | 8,847 | 4,957 | 5,040 | $2 \%$ |
| Mexico | 10 | 4,871 | 3,477 | 8,136 | 4,326 | 4,942 | 14\% |
| Poland | 11 | 64 | 499 | 655 | 2,002 | 4,851 | 142\% |
| New Zealand | 12 | 6,305 | 1,340 | 2,407 | 9,430 | 4,503 | -52\% |
| Austria | 13 | 1,245 | 1,739 | 1,372 | 4,072 | 3,726 | -8\% |
| Canada | 14 | 3,518 | 2,713 | 3,856 | 3,552 | 3,679 | 4\% |
| Moldova | 15 | 1,041 | 1,237 | 579 | 1,148 | 738 | -36\% |
| Others |  | 1,543 | 1,215 | 2,916 | 2,163 | 1,577 | -27\% |
| Total |  | 186,207 | 214,329 | 224,678 | 226,311 | 257,525 | 14\% |

1/ Rank by descending order of imported volume of supplied product in marketing year 2001/02. 2/ Percent change is the percentage difference among shipments in 2001/02 and 2000/01. Source: U.S. Department of Commerce, Bureau of the Census.

| TABLE 3 <br> U.S. APPLE JUICE IMPORTS <br> MARKETING YEARS 1997/98-2001/02 <br> (JULY-JUNE) <br> AVERAGE PRICE (U.S. DOLLARS) PER TON TOP 15 SUPPLIERS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of Origin | Rank by <br> Price 1/ | 1997/98 | 1998/99 | 1999/00 | 2000/01 | 2001/02 | Percent Changed 2/ |
| Argentina | 1 | \$1,122 | \$911 | \$1,048 | \$1,001 | \$740 | -26\% |
| China | 2 | \$1,125 | \$785 | \$1,053 | \$836 | \$785 | -6\% |
| New Zealand | 3 | \$1,170 | \$931 | \$987 | \$927 | \$803 | -13\% |
| Turkey | 4 | \$1,403 | \$832 | \$1,085 | \$1,058 | \$810 | -23\% |
| Moldova | 5 | \$1,756 | \$1,381 | \$2,185 | \$1,380 | \$820 | -41\% |
| Chile | 6 | \$1,415 | \$951 | \$1,098 | \$1,229 | \$847 | -31\% |
| Poland | 7 | \$5,503 | \$1,115 | \$1,450 | \$1,304 | \$895 | -31\% |
| South Africa | 8 | \$1,345 | \$835 | \$1,192 | \$1,261 | \$929 | -26\% |
| Germany | 9 | \$1,709 | \$1,063 | \$1,352 | \$1,079 | \$979 | -9\% |
| Hungary | 10 | \$1,062 | \$811 | \$1,248 | \$958 | \$1,000 | 4\% |
| Brazil | 11 | \$1,094 | \$712 | \$1,149 | \$1,094 | \$1,074 | -2\% |
| Austria | 12 | \$1,720 | \$1,162 | \$1,463 | \$1,181 | \$1,170 | -1\% |
| Italy | 13 | \$1,415 | \$1,097 | \$1,374 | \$1,141 | \$1,467 | 29\% |
| Mexico | 14 | \$1,592 | \$1,231 | \$1,313 | \$1,417 | \$1,603 | 13\% |
| Canada | 15 | \$2,254 | \$2,290 | \$2,097 | \$2,139 | \$2,191 | 2\% |

1/ Rank by acending order average imported value of supplied product in marketing year 2001/02.
2/ Percent change is the percentage difference among averaged imported value in 2001/02 and 2000/01.
Source: U.S. Department of Commerce, Bureau of the Census.


[^0]:    Source: USDA/FAS Attache Reports and USDA National Agricultural Statistics Service. F= Forecast

[^1]:    Source: U.S. Foreign Agricultural Service using data from the National Agricultural Statistics Service. F= Forecast

