$\begin{array}{r}\text { Foreign Agricultural Service } \\ G A I N \text { Report } \\ \hline\end{array}$

Global Agriculture Information Network

# China, People's Republic of 

## Citrus

## Annual

## 2002

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## Report Highlights: <br> China's 2002 citrus production should fall to 10.1 MMT as tangerine groves are in a down year of the cycle. Growers are becoming more interested in growing orange varieties. Consumption of fresh and processed citrus is increasing as purchasing power rises. Lower tariffs following WTO accession have spurred greater imports of concentrated citrus juice (CCJ).

## Executive Summary

China's fresh citrus production should move lower this year as citrus groves alternate between high and low crop years. Initial estimates are that 2002 citrus production should be around 10.1 million metric ton (MMT). This is a reduction of nearly $13 \%$ by volume from the 2001 reported production of 11.6 MMT on nearly 1.324 million hectares in 2001. Around 5\% of the citrus harvested in China goes to processing. Canned mandarin is the predominant citrus product, followed by juice, jam and jellies. Official data for processed citrus is limited, but industry sources estimate China produced 250,000 MT of canned mandarins (nearly $94 \%$ of the total processed citrus in 2000), 10,000 MT of juice (SSJ equivalent), $3,000 \mathrm{MT}$ of jams and jellies, $1,000 \mathrm{MT}$ of wine, and 800 MT of fruit candy.

China's per capita fresh citrus consumption is estimated to be about 8 kilograms. Growth in per capita consumption is difficult to forecast, but a reliable estimate is that citrus consumption should climb to 10 kilograms by 2005, 11.5 kilograms by 2010 , and reach 13 kilograms by 2015. Experts estimate the per capita consumption of orange juice will grow from 0.1 L in 2000 to 0.3 L in $2005,0.6 \mathrm{~L}$ in 2010 , and 1.2 L in 2015. This translates to total annual consumption of 400,000 MT in $2005,800,000$ MT in 2010 and 1.8 million MT in 2015.

As China's citrus planting area is re-structured over the next 10 years to provide more oranges and fewer tangerines, there is a chance that increased demand for good quality fresh oranges will be met by Chinese producers. This, however, is many years away. Market goals of providing fresh citrus over a 6 to 7 month period of the year could also reduce import demand for same hemisphere citrus producers. The increasingly strong demand for orange juice in China will continue to be accommodated primarily by imports in the next few years before sizeable juice orange groves are in place. China imported roughly $10,000 \mathrm{MT}$ of orange juice concentrate in $1999,15,000 \mathrm{MT}$ in $2000,20,000 \mathrm{MT}$ in 2001 , and over $30,000 \mathrm{MT}$ in the first three quarters of 2002.

## Production

## Fresh Citrus

China's fresh citrus production should move lower this year as citrus groves alternate between high and low crop years. Initial estimates are that 2002 citrus production should be around 10.1 million metric ton (MMT). This is a reduction of nearly $13 \%$ by volume from the 2001 reported production of 11.6 MMT on nearly 1.324 million hectares in 2001. In China, the high and low production years tend to be pronounced as a result of the planting structure. Citrus production could surpass 12 MMT in 2003 and 13 MMT by 2005. This will depend on growers improving management techniques, planting better varieties, and avoiding severe weather damage.

Total citrus planted area had been decreasing slightly over the last several years. The Ministry of Agriculture (MOA), however, reported increased planting for citrus in 2001. Total area is expected to stabilize fairly soon with only small changes from one year to the next or with changes in how the acreage is divided among varieties. Planting density is expected to decrease as growers remove exhausted trees and poor-yielding tree varieties. As this occurs, the percentage of young, non-bearing trees is expected to rise, too. The new varieties, however, become commercially viable much sooner than Chinese traditional tree cultivars. For example, in some planting trials, combinations of U.S. root and bud stock have developed oranges within 2 years after transplanting. Traditional Chinese varieties take up to 5 or 6 years to begin bearing fruit.

China's planting acreage of citrus increased by over 52 thousand hectares ( k Ha ) in 2001. The largest increases were in Fujian ( 26 k Ha), Guangdong ( 12 k Ha ), Sichuan ( 9 k Ha ), Chongqing ( 6 k Ha ), Guangxi ( 6 k Ha ), and Hunan ( 6 k Ha ). Fujian has historically produced Mandarin oranges, Peng/Lo tangerines, and Snow oranges. Guangdong has produced of Jiao tangerines, Snow oranges, Red River oranges, and pomelos. Sichuan and Chongqing are large producers of Red oranges, Navel oranges, Jin (sweet) oranges, pomelos, and lemons. Guangxi has produced Mandarin oranges, Jiao tangerines, and pomelos. Hunan has produced a large amount of Mandarin oranges and Kumquats. Jiangxi was the only province with a significant decline in production area ( 14 k Ha ). Jiangxi has produced Navel oranges and Kumquats.

Current estimates of the citrus planting structure in China suggest that about $55 \%$ of production and planting area is for tangerine, mandarin, and satsuma, $30 \%$ for oranges, $10 \%$ for pomelos and grapefruit, and $5 \%$ for lemons and kumquats. Most traders, growers and government officials agree that the current Chinese citrus industry structure is not desirable. Many feel that the percentage of the citrus crop comprised of tangerines could be reduced by as much as half over the next decade. The changes would be achieved by thinning out undesirable tangerine varieties. Also, growers are being encouraged to plant orange trees for both fresh and juicing utilization. There could also be some increased land planted to lemons, kumquats, and other citrus fruit. Tangerine reduction and increased orange planting is already taking place.

Domestic citrus production heavily favors harvest between mid-November and mid-January ( $75 \%$ of citrus production). Early arrival citrus (October through mid-November) comprises about 20\% of the market. Late arrival citrus comprises the remaining $5 \%$ of the market and consists of all citrus fruit varieties that ripen after January. In the future, some government officials have said that they would like to see more citrus available at the early and late harvest periods. This would make more citrus available for both fresh consumption and processing. Ideally, the officials report the arrival period of Chinese citrus would be $20 \%$ early, $40 \%$ middle, and $40 \%$ late.

At present, China's post harvest management permits citrus availability of between 3 to 4 months following
picking. Citrus quality, however, deteriorates rapidly within the first few weeks following harvest. Therefore, most citrus is distributed to the market fresh, without any processing, and thus all at about at the same time. Some growers, as an alternative to storage and excessive handling, leave citrus on trees until buyers come through the production area. Other growers may pick the citrus, spray it with fungicides and ship the product to wholesale markets. Citrus washing and waxing prior to packaging is an uncommon practice in China.

One of China's citrus research centers is encouraging growers to plant less trees per unit of land. In commercial groves, the center recommends that growers lower planting density by as much as half and only plant 30 to 40 trees per mu ( 450 to 600 trees per hectare). Growers in the area are beginning to realize that a lower planting density provides for better production and can extend the commercial growing period of the trees. However, the center reports that getting growers to reduce planting density has been difficult because it conflicts with traditional farming practices.

Despite the high planting density, China's citrus yields are low compared to the United States, Brazil, and other major citrus producing nations. Several industry members believe the biggest reasons for the low yields are poor cultivar and root stock availability. After that, poor production management tends to be the second most noted problem. Most grove management is often price driven. Growers tend to neglect orchards when low prices are expected.

In general, 2002 weather conditions in China's citrus growing areas tended to be an improvement over 2001. There was some frost damage reported in early 2002. Also, in some regions, Spring started out dry, but as summer approached, so did rains that brought some flooding to the areas of Hunan and Hubei ( $3^{\text {rd }}$ and $7^{\text {th }}$ largest citrus producers in 2001). Industry officials report that prolonged rains in some areas during blossom period negatively affected production. Coastal areas of Zhejiang and Guangdong ( $2^{\text {nd }}$ and $6^{\text {th }}$ largest citrus producers in 2001) were also hit with typhoons, but damage to citrus areas was no more than previous years. As fall approached, some citrus growers in Sichuan ( $4^{\text {th }}$ largest citrus producer) were already harvesting green tangerines. Late 2002 weather conditions have tended to remain mild. So far, there has been little reported incidence of frost.

Citrus producers' costs in China are relatively low. The largest production costs for farmers are pesticides, fungicides, fertilizers, and plant growth regulators. Another cost for most commercial orchards is hiring security guards to prevent illegal harvesting of citrus fruits. One of China's citrus research centers estimates that aside from picking and transportation costs, commercial sized young orange orchard costs are between RMB 3,150 and RMB 4,800 per hectare (RMB 8.265 equals U.S. \$1.00). Older orange orchards, in full production, are more expensive to run and can cost between RMB 6,300 and RMB 9,600 per hectare.

Canker and Greening continue to be to the two most noted plant diseases that affect China's citrus production. According to one specialist, however, Canker is only a problem in the growing area of Fujian and nearby areas. Trestiza, Phytopthora, Excoritis, Black Spot, and red and yellow mites/spiders occur, also. Chinese researchers have published much of their work in Chinese language publications on how to mitigate pests and diseases. Chinese researchers have also made extensive use of the Internet to publish and research information.

## Processed Citrus

Around 5\% of the citrus harvested in China goes to processing. Canned mandarin is the predominant citrus product, followed by juice, jam and jellies. Official data for processed citrus is limited, but industry sources estimate China produced 250,000 MT of canned mandarins (nearly $94 \%$ of the total processed citrus in 2000), $10,000 \mathrm{MT}$ of juice (SSJ equivalent), $3,000 \mathrm{MT}$ of jams and jellies, $1,000 \mathrm{MT}$ of wine, and 800 MT of fruit candy.

Beginning in the late 1980s and early 1990s China's citrus processing capacity has grown. Now, China has an overall processing capacity for citrus products of 800,000 MT. Estimates are that half of the capacity is now being utilized.

Canned mandarin processing is mainly located in Zhejiang province which has become China's largest producer and exporter of the product. Zhejiang produced 200,000 MT of canned mandarin in 2000, of which 160,000 MT were exported. In China 1.2-1.5 MT of fresh mandarins can produce one MT of canned mandarins. Canned citrus production is unlikely to see remarkable change in MY 2002, with both world and domestic demand stable.

China produces orange juice concentrate but the quantity is very limited. One expert put the 2000 production figure of 65 / Brix citrus concentrate at $1,500 \mathrm{MT}$ (predominantly orange juice). Production is centered in a few plants around Chongqing, Sichuan, Jiangxi, and Fujian. A lack of commercial plantation of juice oranges is inhibiting the quantity and quality of juice production. So, Chinese juicing operations use cheap low grade oranges to produce juice products that are domestically consumed or used as raw materials to produce citrusflavored soft drinks.

As mentioned earlier in the report, China's citrus harvest time is comprised of $20 \%$ early, $75 \%$ middle, and $5 \%$ late. The harvest structure limits juice operation to around 100 days a year for citrus juice. In countries like Brazil and the United States where the harvest ratio is $20 \%$ early, $40 \%$ middle, and $40 \%$ late the period for juicing is more than 200 days. China is now striving to implement the 20:40:40 harvest structure. In China it takes up to 15 MT of orange to produce one ton of juice concentrate, compared with 10:1 in other countries such as the United States.

Orange juice production is unlikely to increase dramatically in the near term, due to a lack of large scale commercial plantations of juicing oranges. However, in China, the provinces of Zhejiang, Hunan, Chongqing, Guangdong, and Fujian in particular, have planned to build citrus juicing operations.

China produces a very small quantity of tangerine juice, and there is no grapefruit juice production.

| Orchard Area and Production for Citrus by Province |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2000 |  | 2001 |  | MT |
|  | 1000 ha | 1000 MT | 1000 ha | 1000 MT | 1000 ha | 1000 MT | RANK |
| Shanghai | 4 | 134 | 5 | 102 | 4 | 137 | 10 |
| Jiangsu | 3 | 62 | 3 | 43 | 3 | 55 | 13 |
| Zhejiang | 133 | 2,120 | 125 | 972 | 124 | 1,638 | 2 |
| Anhui | 2 | 7 | 2 | 5 | 3 | 9 | 17 |
| Fujian | 149 | 1,589 | 138 | 1,306 | 164 | 1,810 | 1 |
| Jiangxi | 178 | 539 | 169 | 283 | 154 | 434 | 9 |
| Henan | 5 | 14 | 5 | 21 | 5 | 22 | 15 |
| Hubei | 102 | 993 | 99 | 946 | 98 | 1,072 | 7 |
| Hunan | 246 | 1,497 | 248 | 1,259 | 254 | 1,588 | 3 |
| Guangdong | 79 | 836 | 82 | 811 | 94 | 1,135 | 6 |
| Guangxi | 105 | 1,062 | 110 | 880 | 116 | 1,321 | 5 |
| Hainan | 1 | 11 | 2 | 14 | 3 | 15 | 16 |
| Chongqing | 60 | 527 | 63 | 584 | 69 | 599 | 8 |
| Sichuan | 152 | 1,162 | 155 | 1,328 | 164 | 1,498 | 4 |
| Guizhou | 34 | 113 | 33 | 101 | 33 | 128 | 11 |
| Yunnan | 18 | 89 | 20 | 92 | 22 | 102 | 12 |
| Shaanxi | 11 | 30 | 12 | 35 | 14 | 42 | 14 |
| Gansu | 1 | 2 | 0 | 2 | 0 | 3 | 17 |
| National Total | 1,283 | 10,787 | 1,272 | 8,783 | 1,324 | 11,608 |  |
| Source: China | ltural Yearb | oks and Chin | Statistical | arbooks |  |  |  |

## Price

China's Ministry of Agriculture is developing a market information system that publishes wholesale market price information at several locations throughout the country. The information does not appear on a regular schedule. The information is available in Chinese at the following URL: http://www.agri.gov.cn/jghq/gp.

Prices for most citrus varieties have decreased as fall moves into winter. There is no distinction between imported and domestic produced fruit on the price list nor any distinction of fruit quality. The following table provides both the lowest and highest price per kilogram in Chinese Ren Min Bi (RMB) (RMB 8.265 equals U.S. \$1.00).

| China's Ministry of Agriculture Wholesale Market Price Information for Citrus (RMB/KG) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| China's Ministry of Agriculture Wh <br> Citrus Variety <br> by Low and High Prices | 5 Sept. 2002 |  | 21 Oct. 2002 |  | 6 Nov. 2002 |  |
|  | Price | Province | Price | Province | Price | Province |
| Lowest Tangerines (Mi Ju) | 0.9 | Zhejiang | 0.6 | Henan | 0.5 | Hubei |
| Highest Tangerines (Mi Ju) | 16 | Shanxi |  | Shanxi, Heilongjiang, Gansu, Fujian | 5 | Fujian |
| Lowest Sweet Oranges (Tian Cheng) | 3.79 | Jiangsu | 2.4 | Hubei | 2.8 | Tianjin |
| Highest Sweet Oranges (Tian Cheng) | 12 | Beijing | 12 | Shanxi | 14 | Beijing |
| Lowest Navel Oranges (Qi Cheng) | 5 | Xinjiang | 8 | Beijing | 1.6 | Hubei |
| Highest Navel Oranges (Qi Cheng) | 13.6 | Beijing | 13.6 | Beijing | 13.6 | Beijing |
| Lowest Mandarins (Lu Gan) | NA | NA | 1 | Jiangsu | 0.66 | Jiangsu |
| Highest Mandarins (Lu Gan) | NA | NA | 3.2 | Zhejiang | 3.6 | Tianjin |
| Lowest Grapefruit/Pomelos (Youzi) | 1.9 | Zhejiang | 1.4 | Jiangsu, <br> Zhejiang, <br> Fujian | 1.4 | Zhejiang, Fujian |
| Highest Grapefruit/Pomelos (Youzi) | 4 | Heilongjiang | 6.04 | Jiangsu | 3 | Heilongjiang |
| Lowest Pomelos (Shatian Youzi) | NA | NA | 1.5 | Hubei | 1.6 | Beijing, Hubei |
| Highest Pomelos (Shatian Youzi) | NA | NA | 2.4 | Jiangsu | 1.8 | Jiangsu |
| Lowest Lemons (Ning Meng) |  | Beijing |  | Beijing, <br> Tianjin | 6.5 | Tianjin |
| Highest Lemons (Ning Meng) | 13 | Zhejiang | 12 | Heilongjiang | 12 | Heilongjiang |

## Consumption

## Fresh Citrus

China's per capita fresh citrus consumption is estimated to be about 8 kilograms. Growth in per capita consumption is difficult to forecast, but a reliable estimate is that citrus consumption should climb to 10 kilograms by 2005, 11.5 kilograms by 2010, and reach 13 kilograms by 2015. The reasons for the increased levels of fresh citrus consumption are attributable to a variety of circumstances; namely, a more affluent population, improved fresh citrus distribution, and prolonged seasonal availability.

Citrus consumption is often greatest during the 2 to 3 month period following harvest. The reason this period for consumption is rather short is largely attributable to a lack of well developed post-harvest handling facilities and an under-developed distribution system. Agricultural officials are very interested in helping to establish domestic and foreign invested post-harvest facilities for citrus. As it stands, now, however there are still very few cold storage facilities with an ability to provide storage for citrus.

Peak consumption times for fresh citrus are around Chinese holidays like the mid-Autumn festival and Chinese New Year. Both of the festivals follow lunar schedules but usually take place in late September or October and late January or February, respectively. One citrus trader reported that citrus sales during these holiday periods were enough to equal the entire trade for 2 to 3 months.

Most consumers of imported citrus are located in large cities located in eastern China. Often, imported citrus is bought as part of a fruit basket gift.

## Processed Citrus

In China, although citrus is mostly consumed fresh, the demand for orange juice increases dramatically year by year as people, especially those in the urban areas, are changing their diet preference and as their income grows.

Experts estimate the per capita consumption of orange juice will grow from 0.1 L in 2000 to 0.3 L in 2005, 0.6 L in 2010, and 1.2 L in 2015. This translates to total annual consumption of $400,000 \mathrm{MT}$ in $2005,800,000 \mathrm{MT}$ in 2010 and 1.8 million MT in 2015.

The other traditional processed product, canned mandarin, is facing a shrinking domestic market due to the availability of more fresh citrus and other fruits. Chinese people also tend to shun canned citrus out of a belief that canned citrus contains preservatives. The per capita consumption of canned citrus in China is less than one kilogram a year, yet with a large portion finding its way into restaurants and food ingredients.

The government is hoping China will expand commercial juicing oranges and navel oranges area over the next 10 years. They foresee 50,000 additional hectares of juicing orange area in Chongqing and Sichuan and another 60,000 more hectares of navel oranges in Jiangxi and Hubei. The largest orange juice production base in Asia is being built in Chongqing. The base is expected to achieve annual juice orange production that could eventually reach as much as one million MT per year. Most of the planned facilities are located along the Yangtze river area making distribution to major cities like Shanghai, Nanjing, and Wuhan feasible. This would also allow juice to be distributed throughout China and to other nations more practical.

## Trade

## Fresh Citrus

As China's citrus planting area is re-structured over the next 10 years to provide more oranges and fewer tangerines, there is a chance that increased demand for good quality fresh oranges will be met by Chinese producers. This, however, is many years away. Market goals of providing fresh citrus over a 6 to 7 month period of the year could also reduce import demand for same hemisphere citrus producers. Furthermore, if post harvest management, handling, cleaning and waxing improves with increased production and greater availability, the volume of China's citrus exports to other neighboring markets could expand. Currently, most of China's fresh citrus imports are fresh oranges from the United States and most exports are tangerine-style citrus sent to neighboring countries.

Chinese fruit traders are very price conscious and may opt for lower priced citrus as opposed to stable supply and uniform quality. Due to normal business practices in China, some citrus importers may often be heavily extended. Although many do not like it, Chinese traders consider it routine to have to wait for payment from distributors who wait for payment from wholesalers who wait for payment from retailers that ultimately must collect from customers.

According to China customs data, imports of fresh oranges from the United States were down over the last year. While imports from New Zealand increased slightly and imports from South Africa became stronger.
According to industry sources, the imports from South Africa fall into grey-channel trade even though customs has recorded data. The Chinese and the citrus growers of Southern Africa are awaiting final approval of a pest risk assessment that would allow for legitimate Chinese imports of South African citrus to commence. China and Uruguay also seem to be advancing in their finalization of a pest risk assessment that would allow for legitimate imports of citrus into China.

Fresh orange imports are greatest during the period of April through September. Fresh orange exports are greatest during the period of October through March. Fresh tangerine and mandarin style citrus exports are greatest over the period of November through March. Fresh tangerine and mandarin style citrus imports are not very significant. Fresh lemon imports have been greatest during the months of April through September with peaks periods often in June and July. Lemon imports over the 2002 calendar year appear to be stable.

## Processed Citrus

The increasingly strong demand for orange juice in China will continue to be accommodated primarily by imports in the next few years before sizeable juice orange groves are in place. China imported roughly 10,000 MT of orange juice concentrate in $1999,15,000$ MT in 2000, 20,000 MT in 2001, and over 30,000 MT in the first three quarters of 2002. Frozen orange juice concentrate imports surged to 33,225 MT in MY 2001/2002 (October-September) from 12,847 MT in MY 2000/2001, largely due to significant tariff reductions in 2002. Two-thirds came from Brazil, followed by the United States, and then Israel. China is expected to continue this strong import momentum in the years to come, supported by consistent demand increases. However, tariff will see only slight cuts or, as in the case of frozen orange juice, remain unchanged through 2004 (see page 9).

The export market for China's canned citrus is growing steadily, from 112,234 MT in 1999 to 175,484 MT in 2000, mainly to Japan, the U.S. and Europe. China has become the world's largest exporter of canned citrus amid total trade volume of some $300,000 \mathrm{MT}$ worldwide. Chinese canned citrus is competitive in terms of quality and price.

China's export volume of citrus juice is very small due to low production volume and poor quality. The export figure shown in the following tables indicate primary re-exports.

The following represents a few reference points when analyzing statistical data for processed juices. One ton of imported 65/ Brix orange concentrate can make approximately 5.5 tons of single strength juice. Also, tonnage figures for orange juice in the PSD table have been converted into single strength juice equivalent while in Trade Matrix table the figures are for concentrates. The customs data does not accurately reflect the actual volume as the official statistics may not include re-exports from Hong Kong or through other channels.

## Trade Policy

China joined the WTO in December 2001. As part of China's WTO accession, the country agreed to a tariff rate reduction schedule. The following table represents the tariff rates from last year and the schedule for reductions from 2002 through 2004. It is expected that as tariff rates continue to fall, there will be increased opportunity for importing fresh and processed citrus products directly to China. Now, however, there is still a large volume of "gray channel" trade of citrus that enters through Hong Kong and is transferred to other parts of China. As tariff rates decline and enforcement increases, the financial incentive to import via Hong Kong and pay for overland shipping to other parts of China should be reduced.

Scheduled Tariff Rate Reductions for Fresh and Processed Citrus Products

| HS Code | Description | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 0805.1000 | Oranges | 35 | 22.6 | 16.8 | 11 |
| 0805.2010 | Mandarins (Chiao-kan) | 35 | 23.2 | 17.6 | 12 |
| 0805.2020 | Mandarins (Broad-leafed)* | NA | 23.2 | 17.6 | 12 |
| 0805.2090 | Mandarins Others (incl. tangerines and satsumas); clementines, wilikings, and similar citrus <br> hybrids | 35 | 23.2 | 17.6 | 12 |
| 0805.3000 | Citrus, Latifflia (HS Code No Longer In Use) | 35 | 22.6 | 16.8 | 11 |
| 0805.4000 | GrapefruitPomelos | 35 | 23.2 | 17.6 | 12 |
| 0805.5000 | Lemons and Limes** | NA | 22.6 | 16.8 | 11 |
| 0805.9000 | Citrus, Other | 38 | 34 | 32 | 30 |
| 2007.9100 | Citrus, Jams and Jellies | 30 | 30 | 30 | 30 |
| 2008.3010 | Citrus, In Airtight Containers | 28 | 24 | 22 | 20 |
| 2008.3090 | Citrus, Non Airtight Containers | 28 | 24 | 22 | 20 |
| 2009.1100 | Frozen Orange Juice | 35 | 7.5 | 7.5 | 7.5 |
| 2009.1200 | Non Frozen Orange Juice <20 Brix *** | NA | 32 | 31 | 30 |
| 2009.1900 | Non Frozen Orange Juice >20 Brix | 34 | 32 | 31 | 30 |
| 2009.2000 | Grapefruit Juice (HS Code No Longer In Use) | 31 | 23 | 19 | 15 |
| 2009.2100 | Grapefruit Juice <20 Brix **** | NA | 23 | 19 | 15 |
| 2009.2900 | Grapefruit Juice $>20$ Brix **** | NA | 23 | 19 | 15 |
| 2009.3000 | All Other Citrus Juice (HS Code No Longer In Use) | 32 | 24.8 | 21.4 | 18 |
| 2009.3100 | All Other Citrus Juice <20 Brix ***** | NA | 24.8 | 21.4 | 18 |
| 2009.3900 | All Other Citrus Juice $>20$ Brix ***** | NA | 24.8 | 21.4 | 18 |

* HS Code added in 2002. Tariff rate reductions should follow other mandarin orange reductions.
** HS Code added in 2002. Should correspond to previous rate reductions for Citrus Latifolia.
*** HS Code added in 2002. Should correspond to tariff reductions for 2009.1900
**** HS Code added in 2002. Should correspond to tariff reductions for 2009.2000
***** HS Code added in 2002. Should correspond to tariff reductions for 2009.3000
Source: China Customs and China's accession documents to the WTO
The Value Added Tax on all citrus products beginning with ' 0805 ' is 13 percent. The Value Added Tax on all other citrus products in the above table is 17 percent.

China and the United States signed a protocol for phytosanitary requirements for the export of citrus from several U.S. states to China on April 7, 1999. The full text of the requirements is available at the United States Trade Representative web site (http://www.ustr.gov/agreements/add_a.html).

China's announcements to the WTO Committee on SPS Measures regarding fruit can be downloaded from the WTO web site. Visitors should go to "http://www.wto.org/english/tratop_e/sps_e.htm" site and then perform a search for China under the Notifications on SPS section. The most relevant announcement for U.S. citrus growers is "G/SPS/N/CHN/P/117" which reiterates points from the Chinese Ministry of Agriculture Public Notice [2000] No. 115 that permits oranges from the following U.S. locations: Texas, Arizona, Florida (only the seven counties of Indian River, St. Lucie, martin, Palm Beach, Collier, Hendry, Lee), and California (only the six counties of Fresno, Tulare, Kera, Madera, Ventura, and Monterey).

Inquiries into China's SPS announcements can be made to the following contact point within China's State Administration for Quality Supervision, Inspection, and Quarantine (AQSIQ).

Add: SPS Enquiry Point of China
SRRC, AQSIQ
No. 15 Fang Cao Di West Street, Chao Yang District, Beijing, 100020, P.R. China
Phone: (86-10) 6595-2460
Fax: (86-10) 6506-8143
Email: srrc@aqsiq.gov.cn

## Production Policy

Chinese government officials are encouraging greater production of oranges in poorer areas of Southwestern China. Citrus growers are allowed to participate in the State Forestry Administration program: Cropland Conversion to Forest and Grassland. The program allows farmers and growers to take grain crop land out of production and replace it with economic tree crops. Growers receive seedlings free of charge or at little cost and they are supposed to receive cash and grain subsidies, also. In addition, most growers tax obligations are waived until trees come into commercial production.

China's citrus growers are supposed to be assessed a "specialty product tax" once trees are producing commercial quantities of fruit. However, township and village government officials have been known to extend a tax waiver for years beyond when trees begin producing commercial fruit. Some government officials believe the tax waiver is conducive to a more stable supply of fruit and will not spur farmers to cut down groves when prices fall too low.

One government plan calls for the planting of 130,000 hectares of juice oranges and 150,000 hectares of navel oranges in the Chongqing municipality. The area has good soil and climate conditions and due to its isolation has been able to avoid many of the citrus disease problems that hamper orange production in other parts of the country. One driving force for the plan has been that, with the completion of the Three Gorges Dam on the Yangtze River, tens of thousands of farmers will be forced to move off their land and find new sources of income. Currently, many government officials believe that the production of improved varieties of oranges for fresh consumption and processed utilization will bring more wealth to the area. The area, however, is rather isolated and there are not many expedient distribution routes for fresh citrus or processing facilities in the area. Some officials and industry representatives, however, do not believe that this type of agriculture is sustainable.

China has several national standards for citrus (GB/T 12947-1991 Fresh Citrus, GB 8210-1987 Export Fresh Citrus Inspection Methods, GB 10547-1989 Citrus Storage). The Agricultural Affairs Office has been told that GB/T 12947 and GB 8210 are scheduled for revision. All items to be amended, however, are still under consideration. According to one industry source, the current national standard is counter-productive to improving citrus quality. Instead, the source believes that standards should encourage better tasting varieties and better internal qualities of the orange rather than the presumption that larger is better.

China's Ministry of Health recently released draft versions of several national standards for processed citrus and other fruit products. The following table includes information for the draft versions of recent regulations on food safety and hygiene of fruit products along with the Internet addresses where the documents are available in Chinese.

| Recent Chinese Ministry of Health draft regulation on processed fruit products |  |  |
| :---: | :---: | :---: |
| Reference Name | English Title | Internet Address for Chinese Language Copy of the Standard |
| GB11671-XXXX | Hygienic Standard for Canned Fruits and Vegetables | http://www.moh.gov.cn/fzyjd/zqgzyj/200208080033_1_1.doc\# |
| GB14884-XXXX | Hygienic Standard for Preserved Fruit | http://www.moh.gov.cn/fzyjd/zqgzyj/200208080033_1_13.doc\# |
| GB16325-XXXX | Hygienic Standard for Dried Fruit | http://www.moh.gov.cn/fzyjd/zqgzy]/200208080032_1_11.doc\# |
| GB17325-XXXX | Hygienic Standard for Concentrated Fruit and Vegetable Juice for the Food Industry | http://www.moh.gov.cn/fzyjd/zqgzy/200208080032_1_13.doc\# |
| GBXXXX-XXXXFrtVegJui <br> c | Hygienic Standard for Fruit \& Vegetable Juice | http://www.moh.gov.cn/fzyjd/zqgzyj/200208080033_1_2.doc\# |
| GBXXXXX-XXXXJellies | Hygienic Standard for Jellies | http://www.moh.gov.cn/fzyjd/zqgzy]/200208080033_1_0.DOC\# |

## Stocks

China carries no official data for citrus stocks. After harvest, if growers want to home-store citrus, they often place the citrus on the ground or on shelves in caves or simple shelters. Then, growers usually spray the fruits with fungicides and bag the fruit in plastic to preserve some of the fruits moisture. This type of storage is only able to keep citrus for 1 to 3 months following harvest. Little modern cold storage is available for citrus.

## Statistical Tables

The production, supply, and demand tables for China's citrus, oranges, and tangerines have been altered so that the marketing year begins in October of each year and lasts to the end of September in the following year.
Therefore, some of the trade data for previous years may not agree with past reports.
The large number of non-bearing trees in year 2000 was due to extreme cold weather damage. Citrus production in year 2001 and 2002 did not suffer from much weather damage and therefore the number of nonbearing is much smaller.

| PSD Table |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |  |  |  |
| Commodity | Fresh Citrus,Other |  |  |  | (HECTARES)(1000 TREES)(1000 MT) |  |
|  | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
|  | Old | New | Old | New | Old | New |
| Market Year Begin |  | 10/2000 |  | 10/2001 |  | 10/2002 |
| Area Planted | 0 | 1272000 | 0 | 1323670 | 0 | 1350000 |
| Area Harvested | 0 | 1145000 | 0 | 116000 | 0 | 1200000 |
| Bearing Trees | 0 | 920500 | 0 | 1070800 | 0 | 1050000 |
| Non-Bearing Trees | 0 | 402000 | 0 | 189000 | 0 | 190000 |
| TOTAL No. Of Trees | 0 | 1322500 | 0 | 1259800 | 0 | 1240000 |
| Production | 0 | 8783 | 0 | 11608 | 0 | 10100 |
| Imports | 0 | 72 | 0 | 56 | 0 | 65 |
| TOTAL SUPPLY | 0 | 8855 | 0 | 11664 | 0 | 10165 |
| Exports | 0 | 168 | 0 | 182 | 0 | 175 |
| Fresh Dom. Consumption | 0 | 8247 | 0 | 10902 | 0 | 9485 |
| Processing | 0 | 440 | 0 | 580 | 0 | 505 |
| TOTAL DISTRIBUTION | 0 | 8855 | 0 | 11664 | 0 | 10165 |


| PSD Table |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |  |  |  |
| Commodity | Fresh Oranges |  |  |  | $\begin{aligned} & \text { (HECTARES)(1000 TREES)(1000 } \\ & \text { MT) } \\ & \hline \end{aligned}$ |  |
|  | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
|  | Old | New | Old | New | Old | New |
| Market Year Begin |  | 10/2000 |  | 10/2001 |  | 10/2002 |
| Area Planted | 359408 | 381600 | 363061 | 410000 | 0 | 432000 |
| Area Harvested | 316279 | 343500 | 319494 | 350000 | 0 | 360000 |
| Bearing Trees | 296640 | 276150 | 338655 | 332000 | 0 | 336000 |
| Non-Bearing Trees | 37742 | 120600 | 46088 | 58590 | 0 | 60800 |
| TOTAL No. Of Trees | 334382 | 396750 | 384743 | 390590 | 0 | 396800 |
| Production | 2907 | 2635 | 2924 | 3598 | 0 | 3232 |
| Imports | 49 | 57 | 55 | 42 | 0 | 60 |
| TOTAL SUPPLY | 2956 | 2692 | 2979 | 3640 | 0 | 3292 |
| Exports | 3 | 2 | 3 | 5 | 0 | 5 |
| Fresh Dom. Consumption | 2893 | 2675 | 2918 | 3612 | 0 | 3264 |
| Processing | 60 | 15 | 58 | 23 | 0 | 23 |
| TOTAL DISTRIBUTION | 2956 | 2692 | 2979 | 3640 | 0 | 3292 |


| PSD Table |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples <br> Republic of |  |  |  | Degrees Brix |  |
| Commodity | Juice, Orange |  |  |  | (MT) |  |
|  | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
|  | Old | New | Old | New | Old | New |
| Market Year Begin |  | 10/2000 |  | 10/2001 |  | 10/2002 |
| Deliv. To Processors | 60 | 15 | 58 | 23 | 0 | 23 |
| Beginning Stocks | 0 | 0 | 0 | 0 | 0 | 0 |
| Production | 0 | 5500 | 0 | 10000 | 0 | 12000 |
| Imports | 0 | 92268 | 0 | 200204 | 0 | 300000 |
| TOTAL SUPPLY | 0 | 97768 | 0 | 210204 | 0 | 312000 |
| Exports | 0 | 15317 | 0 | 16648 | 0 | 18000 |
| Domestic Consumption | 0 | 82451 | 0 | 193556 | 0 | 294000 |
| Ending Stocks | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL DISTRIBUTION | 0 | 97768 | 0 | 210204 | 0 | 312000 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Import Trade Matrix |  |  |  |
| :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |
| Commodity | Fresh Oranges |  |  |
| Time period | Oct - Sept | Units: | Metric Ton |
| Imports for: | 2000 |  | 2001 |
| U.S. | 36821 | U.S. | 20630 |
| Others |  | Others |  |
| New Zealand | 19909 | New Zealand | 20029 |
| South Africa | 330 | South Africa | 2125 |
| Nepal | 0 | Nepal | 31 |
| Brazil | 0 | Brazil | 5 |
| Chile | 17 | Chile | 4 |
| Thailand | 0 | Thailand | 1 |
| Germany | 0 | Germany | 1 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total for Others | 20256 |  | 22196 |
| Others not Listed | 0 |  | 0 |
| Grand Total | 57077 |  | 42826 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Import Trade Matrix |  |  |  |
| :--- | :--- | :--- | ---: |
| Country | China, Peoples <br> Republic of |  |  |
| Commodity | Juice, Orange |  |  |
| Time period | Oct - Sept | Units: | Metric Tons |
| Imports for: | 2000 |  | 2001 |
| U.S. | 2028 | U.S. | 4313 |
| Others |  | Others |  |
| Brazil | 8898 | Brazil | 25065 |
| Israel | 2353 | sreal | 3379 |
| Netherlands | 18 | Netherlands | 323 |
| Italy | 199 | Italy | 232 |
| Belgium | 0 | Belgium | 113 |
| Thailand | 1 | Thailand | 38 |
| Japan | 3 | Japan | 28 |
| Mexico | 0 | Mexico | 23 |
| Canada | 0 | Canada | 19 |
| Australia | 1851 | Australia | 1727 |
| Total for Others | 13323 |  | 30947 |
| Others not Listed | 1426 |  | 1332 |
| Grand Total | 16777 |  | 36592 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Export Trade Matrix |  |  |  |
| :--- | :--- | :--- | ---: |
| Country | China, Peoples <br> Republic of |  |  |
| Commodity | Fresh Oranges |  |  |
| Time period | Oct - Sept | Units: | Metric Ton |
| Exports for: | 2000 |  | 2001 |
| U.S. | 0 | U.S. | 0 |
| Others |  | Others |  |
| Hong Kong | 1735 | Hong Kong | 3971 |
| Macau | 51 | Macau | 387 |
| Singapore | 0 | Singapore | 689 |
| Malaysia | 80 | Malaysia | 123 |
| Vietnam | 147 | Vietnam | 45 |
| Indonesia | 0 | Indonesia | 26 |
| Russia | 38 | Russia | 53 |
| Canada | 0 | Canada | 23 |
| North Korea | 1 | North Korea | 3 |
| Netherlands | 0 | Netherlands | 2 |
| Total for Others | 2052 |  | 5322 |
| Others not Listed | 13 |  | 5322 |
| Grand Total | 2065 |  |  |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Export Trade Matrix |  |  |  |
| :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |
| Commodity | Juice, Orange |  |  |
| Time period | Oct $00-\operatorname{Sep} 01$ | Units: | Metric Tons |
| Exports for: | 2000 |  | 2001 |
| U.S. | 10 | U.S. | 3 |
| Others |  | Others |  |
| Hong Kong | 2655 | Hong Kong | 3056 |
| Taiwan | 0 | Taiwan | 53 |
| Singapore | 74 | Singapore | 0 |
| UAE | 6 | UAE | 0 |
| Burma |  | Burma | 2 |
| Nigeria | 0 | Nigeria | 121 |
| Japan | 38 | Japan | 0 |
| Italy |  | Italy | 0 |
| Масаи | 0 | Macau | 4 |
| Spain | 0 | Spain | 11 |
| Total for Others | 2774 |  | 3247 |
| Others not Listed | 1 |  | 6 |
| Grand Total | 2785 |  | 3256 |


| PSD Table |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |  |  |  |
| Commodity | Fresh Tangerines |  |  |  | (HECTARES)(1000 TREES)(1000 MT) |  |
|  | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
|  | Old | New | Old | New | Old | New |
| Market Year Begin |  | 10/2000 |  | 10/2001 |  | 10/2002 |
| Area Planted | 749745 | 699600 | 757499 | 715000 | 0 | 715500 |
| Area Harvested | 667285 | 629750 | 674174 | 675000 | 0 | 680000 |
| Bearing Trees | 741500 | 506275 | 778155 | 578232 | 0 | 556500 |
| Non-Bearing Trees | 415642 | 221100 | 436189 | 102060 | 0 | 100700 |
| TOTAL No. Of Trees | 1157142 | 727375 | 1214344 | 680292 | 0 | 657200 |
| Production | 5132 | 4831 | 5908 | 6268 | 0 | 5353 |
| Imports | 2 | 6 | 2 | 6 | 0 | 5 |
| TOTAL SUPPLY | 5134 | 4837 | 5910 | 6274 | 0 | 5358 |
| Exports | 179 | 155 | 207 | 169 | 0 | 170 |
| Fresh Dom. Consumption | 4785 | 4495 | 5417 | 5780 | 0 | 4837 |
| Processing | 170 | 187 | 286 | 325 | 0 | 351 |
| TOTAL DISTRIBUTION | 5134 | 4837 | 5910 | 6274 | 0 | 5358 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Import Trade Matrix |  |  |  |
| :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |
| Commodity | Fresh Tangerines |  |  |
| Time period | Oct - Sept | Units: | Metric Tons |
| Imports for: | 2000 |  | 2001 |
| U.S. | 2268 | U.S. | 234 |
| Others |  | Others |  |
| New Zealand | 3071 | New Zealand | 5133 |
| Australia | 0 | Australia | 211 |
| Japan | 124 | Japan | 103 |
| Taiwan | 218 | Taiwan | 19 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total for Others | 3413 |  | 5466 |
| Others not Listed | 0 |  | 0 |
| Grand Total | 5681 |  | 5700 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Export Trade Matrix |  |  |  |
| :--- | :--- | :--- | ---: |
| Country | China, Peoples <br> Republic of |  |  |
| Commodity | Fresh Tangerines |  |  |
| Time period | Oct - Sept | Units: | Metric Tons |
| Exports for: | 2000 |  | 2001 |
| U.S. | 186 | U.S. | 0 |
| Others |  | Others |  |
| Malaysia | 45169 | Malaysia | 41972 |
| Philippines | 29991 | Philippines | 34821 |
| Indonesia | 19682 | Indonesia | 21841 |
| Singapore | 5717 | Singapore | 14942 |
| Vietnam | 9291 | Vietnam | 16104 |
| Hong Kong | 10720 | Hong Kong | 8158 |
| Russia | 14755 | Russia | 17171 |
| Canada | 17445 | Canada | 11445 |
| North Korea | 596 | North Korea | 1188 |
| Macau | 549 | Macau | 712 |
| Total for Others | 153915 |  | 16834 |
| Others not Listed | 1010 |  | 887 |
| Grand Total | 155111 |  | 169241 |

The period for trade in the following table covers October 1 through September 30 of the following year. Due to China customs record maintenance the data in the following table is for both grapefruit and pomelos. Trade data suggests that by looking at the country of origin, analysts can determine if imports are grapefruit or pomelo.

| Import Trade Matrix |  |  |  |
| :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |
| Commodity | Fresh Grapefruit |  |  |
| Time period | Oct - Sept | Units: | Metric Tons |
| Imports for: | 2000 |  | 2001 |
| U.S. | 1798 | U.S. | 927 |
| Others |  | Others |  |
| Thailand | 1285 | Thailand | 2371 |
| Taiwan | 156 | Taiwan | 199 |
| New Zealand | 15 | New Zealand | 0 |
| Japan | 0 | Japan | 11 |
| Egypt | 16 | Egypt | 0 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total for Others | 1472 |  | 2581 |
| Others not Listed |  |  |  |
| Grand Total | 3270 |  | 3508 |

The period for trade in the following table covers October 1 through September 30 of the following year.

| Import Trade Matrix |  |  |  |
| :--- | :--- | :--- | ---: |
| Country | China, Peoples <br> Republic of |  |  |
| Commodity | Juice, Grapefruit |  |  |
| Time period | Oct - Sept | Units: | Metric Tons |
| Imports for: | 2000 |  | 2001 |
| U.S. | 390 | U.S. | 344 |
| Others |  | Others |  |
| Israel | 69 |  | 31 |
| Australia | 43 |  | 30 |
| Netherlands | 10 | 21 |  |
| Denmark | 0 |  | 7 |
| Thailand | 0 |  | 0 |
| Taiwan | 51 |  | 0 |
| Italy | 24 |  | 0 |
| Germany | 2 |  | 0 |
| Austria | 2 |  | 00 |
| South Korea | 2 |  | 0 |
| Total for Others | 203 |  | 344 |
| Others not Listed | 0 |  | 0 |
| Grand Total | 593 |  |  |

