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## Taiwan

## Fresh Deciduous Fruit

## Annual

2003

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## Report Highlights:

In MY2002, apple consumption and import demand sunk to the minimum volume necessary to meet basic consumer demand. Apple consumption is expected to rise to around 130 thousand mt in MY2003, where it is expected to remain in MY2004 unless a recovery in the general economy boosts general consumption, in which case another 10 thousand mt could readily be added. In August 2003, the U.S. and Taiwan reached agreement on a new systems approach quarantine work plan for codling moth, which should ensure against disruption of U.S. exports as occurred in 2002. The United States, not long ago nearly the monopoly supplier of apples to Taiwan, is will face increasing competitive pressures from northern hemisphere rivals such as Japan for market share. Chinese apples are not expected to be permitted import into Taiwan at least through 2005. Given current competitive conditions, the U.S. share of fresh apple imports is expected to settle in at between 55 and $65 \%$ of total fresh apple imports during the coming several years. U.S. suppliers are encouraged to leverage long-term relationships developed with key importers and maintain close market ties to help retain dominance.

## Executive Summary

While the apple remains by far the most important item in Taiwan's fruit import profile, it is facing plateauing demand as economic conditions restrict consumer spending and an increasing variety of fruits (both imported and domestic) prize consumer dollars away from the traditional stand-bys. Given current economic conditions, apple consumption is expected this year to rise $8 \%$ off historic lows set last year, but to remain at this year's level through MY2004, unless improving economic conditions support a general rise in consumer spending and social activities. A continued general preference among Taiwan importers for U.S. apples (best taste, good appearance, stable quality) must be tempered by an understanding that Taiwan is a market that calculates profits very carefully. A high dollar and high relative U.S. producer prices in recent years have resulted in a U.S. share that has fallen dramatically in comparison to most other suppliers. Under current market conditions, the U.S. is expected to have a total share of the apple import market that ranges between 55 and $65 \%$ over the coming several seasons. However, much will depend upon fluctuations in the dollar and U.S. crop prices versus Japanese and Korean producers.

## Production

In 2003/2004, apple production will likely remain higher than "normal" due to a second relatively dry season in the high mountain fruit growing areas of central Taiwan. Yields per hectare in 2002 reached 12.5 tons, $135 \%$ of the 10 -year running average. Yield per hectare during this marketing year (2003) is expected to come close to that achieved in the last year. The MY2003 crop forecast calls for nearly 9,000 metric tons to be harvested for commercial use, a slight decrease of $7 \%$ over the MY2002 crop. Future yields truly depend upon weather, although over the longterm, Taiwan is gradually taking orchards out of production. A relatively safe assumption is that, even during good weather years, Taiwan's apple production will not exceed 10,000 mt.

Local apples represent a largely insignificant ( $<10 \%$ ) component of total market consumption.

Local production is principally the Star King variety. Eighty-percent of commerciallygrown local apples are estimated as sold for fresh consumption, with the remainder being used in prepared foods -- processed typically not very far from the orchard.

Taiwan's apple growers face significant financial difficulties to make crop operations earn a sustainable profit and continued contraction of field acreage used for commercial production defines the long-term trend for the industry. However, current sustained economic difficulties in the economy at large will likely mitigate the move out of the industry in the short term and the area harvested is not expected to change significantly over the next $1 \sim 2$ years. Historically high unemployment rates of 5 percent or more have resulted in a boost to agricultural employment.

## Consumption

MY2002 market demand for apples sagged by $10 \%$ ( $10,098 \mathrm{mt}$ ) to 119.8 thousand metric tons. While a continuing sluggish economy certainly continues to play a role, its effects on fruit consumption (of which the apple is an important component) are believed minimal this year. The critical factors underlying the MY2002 dip in consumption included 1) short supplies and high prices during the winter months and 2) the damping effect that the outbreak of Severe Acute Respiratory Syndrome (SARS) had on overall food consumption during spring/early summer 2002. Good news for suppliers of fresh fruits (including apples) is that both factors were eventspecific (e.g., suspension of imports from the U.S. during 4Q 2002 due to coddling moth quarantine issues) and should not have a lasting impact on consumption or consumer purchasing behavior.

Taiwan is expected to regain a "normal" level of apple consumption (i.e., in line with current economic conditions) in MY2003 of around 130 thousand metric tons - on a par with MY2001 levels. Barring further unexpecteds, such as a repeat outbreak of SARS, the potential for further falls much beyond the 120~130 thousand metric ton level is not great due to the continued importance of fruit (and apples) in even a diminished Taiwan diet. However, continued economic uncertainty may negatively impact upon the long-held Taiwan consumer preference for only premium quality apples and permit lesser-quality, lower priced apples a growing niche in the marketplace.

Any rise in consumption beyond the low 120 thousand mt level in MY2004 will be largely contingent upon a recovery in the general economy.

The apple is, far and away, the most heavily consumed imported fruit in Taiwan. Only oranges, $96 \%$ of which are grown domestically, are consumed in greater quantity. However, in terms of real growth, the apple is losing ground to a host of other imported fruits, including grapes, nectarines, cherries, and berries. If the Taiwan economy is able to get on track with growth rates of $3 \sim 5 \%$ apples should see a healthy boost in demand, with the addition of another $10 \sim 20$ thousand mt per year in imports certainly reasonable. However, due to the variety of imported and domestic fruits now available, consumption of apples is not expected to reach the highs seen in the late 1990s without some new factor or factors changing the competitive picture (e.g., such as new positive findings regarding the health benefits of apples).

Chart 1.

(please refer to appendix for volume data used in this chart)
Nearly all fresh fruit imports, apples included, are consumed as fresh produce. The Taiwan consumer's emphasis on both convenience and freshness helps channel about half of all fresh apple sales through traditional / neighborhood wet markets. Of the remainder, around $20 \%$ are sold in small fruit shops and $10 \%$ by traveling vendors, with the rest absorbed by grocery stores, hypermarkets and large hotel and restaurant accounts. Warehouse grocers (hypermarkets) reportedly now account for close to $11 \%$ of domestic fresh apple sales. Their increasing market share has been gained principally at the expense of supermarket / grocery chains, although hypermarkets are increasingly eating into neighborhood wet markets as the convenience and pricing offered in hypermarkets is winning business from Taiwan's small-scale retailer communities (particularly in the Taipei metropolitan area) which traditionally purchased produce in wet markets.

Fuji, with its sweet taste and firm texture, remains the overwhelmingly favored variety - retaining slightly better than $80 \%$ of total retail apple sales. The remainder is comprised largely of Gala, Pacific Rose, Red Delicious, and Granny Smith. The former two are principally used to fill gaps in supply of Fujis experienced during late season months.

Lacking the Western penchant for sweet snacks \& desserts and blessed with a rich variety of native fruits, the vast majority of Taiwanese view fruit as an important part of the daily diet. Fruit is frequently eaten as a snack as well as dessert and is the most common food prepared to serve to visitors in the home or office.

The Taiwan consumers' preference for the apple over other fruit is grounded in a number of factors, including appreciation of nutritive/health benefits, relatively low price, a strong quality image, attractive appearance, and relatively long shelf life. Furthermore, the year-round availability of the apple is attractive to retailers, because point-of-sale formats need not be rotated - as is necessary for fruits available only at certain times of the year.

## Good "Face Value"

Two of the apple's popularity factors noted above, attractive appearance (red, round, shiny) and quality image, reflect consumer priorities which tend to be more uniquely Taiwanese (or Chinese) than others mentioned (which tend to be more universal). Unless bought solely for personal consumption, the color, size, and general appearance of fruit is typically quite important to the retail customer. Serving good-looking fruit to family, friends, or clients intimates good manners, generosity, and warmth. The "best-looking" fruit, often specially presented on store shelves or sold in gift packaging, fetches the highest prices. The most expensive apples on the market, Japan-grown Fujis, sell well at premiums of $100 \%$ or more over slightly smaller rivals because of their size and consumers' quality perceptions.

## Seasonal Preferences

While eaten year round, Taiwan consumers purchase significantly more apples during the autumn and winter months - the prime production months for northern hemisphere growers. Reasons for this include general perception of the apple as a "cool weather" fruit and the incorporation of apples into the many festivals held during this time of the year.

The chart below illustrates the higher-than-average apple imports during Taiwan's autumn \& winter months recorded over the past two and a half years.

Chart 2.
Source: Taiwan Customs


## Trade

Trade in MY2002 was off $9.7 \%$ from the previous year's level due to the combination of an unanticipated month-long (11/07-12/10/2002) ban on U.S. apple shipments and the effects of the SARS outbreak during the late spring and early summer. As discussed in the "Consumption" section, industry believes the MY2002 dip in demand largely due to short-term factors, which should not bear negatively on MY2003 demand. As imports comprise nearly $90 \%$ of total consumption, import volumes continue to be very sensitive to changes in domestic demand factors.

Trade volumes are now well off the peak reached in MY1998, with the extended falloff almost exclusively attributable to poor general economic conditions and uncertainties regarding when an economic turnaround will happen. Some analysts see a "floor" demand for fresh apples in the 115-130 thousand mt range. Demand at this level becomes stickier, with purchases much less likely to be affected negatively by general economic conditions. Barring unforeseen problems, such as another outbreak of SARS, Taiwan's apple imports should see growth back into the low 120 thousand mt range in MY2003. Consumption will not likely drive demand for imported apples beyond this range until growth returns to the general economy ( please refer to additional comments in the "Consumption" section).

While the flagging general economy continues to weigh upon the upward prospects for apple consumption, apple exporters were hit hard by two unanticipated, shortterm factors during MY2002. These included: 1) imposition of a temporary ban on apples from the United States due to detection of codling moth during the peak export period for northern hemisphere suppliers and 2) the outbreak of Severe Acute Respiratory Syndrome (SARS) which began in mid-spring 2003. While northern hemisphere suppliers competing with the United States (mainly Japan and Korea) saw some windfall growth in sales due to the temporary halt of U.S. apple shipments, the ban disrupted normal trade channels, raised costs, and led to general market confusion and uncertainty. Between December 2002 and March 2003, U.S. apple exports to Taiwan sunk by $46 \%$, Japan and Korea apple exports rose by $40 \%$, and overall apple imports shrank by $30 \%$ in comparison with MY2002 levels.

In general, Taiwan buyers express a continued preference for U.S.-origin Fuji apples due to factors including long-term relationships, responsive suppliers, and stable, high product quality. However, as return on investment remains the top priority for fruit buyers, apple importers have shown themselves more than willing to shift purchase orders to other competing supplier countries when cost factors run against U.S. exporters. High relative U.S. crop prices in recent years have opened the door to sales from other northern hemisphere growers (mostly in Japan and Korea). At the consumer level, Japanese apples have received mixed to positive reviews (generally good taste, relatively small size, average appearance, competitive price), although the strong marketing value of "made in Japan" should ensure that country a growing share of overall consumption through the coming several years. Korean apples, while typically priced at a discount to U.S. and Japanese apples have, to date, been supplied with inconsistent quality and average appearance and sweetness. Therefore, growth of the market share for Korean suppliers is expected to lag behind other competitors.

In terms of northern hemisphere suppliers, the U.S. is expected to remain the dominant player through the coming years with a total market share of between 55 and $65 \%$. Japan, while recognizing that MY2002 was an unusual year, should continue to grow its market share to between 7~8\% in MY2003, with further growth in MY2004 largely contingent upon a stable or weaker yen.

Chart 3.


Taiwan's 2002 entry into the WTO eliminated previous quota restrictions on all countries formerly approved to export to the island under quota (Chile, New Zealand, Australia, Japan, South Africa, Argentina, and the European Union) and removed a previous ban on apple imports from South Korea. China remains prohibited from exporting fresh apples to Taiwan.

Taiwan currently applies a $20 \%$ tariff on apple imports, down significantly from the $50 \%$ tariff applied prior to January 2002. Taiwan Customs assesses tariff due on a shipment based on a region-specific reference price rather than invoiced value.

## General Phytosanitary Requirements

Taiwan currently bans or subjects to pest-free certification requirements imports of apples from countries with the following pests: (1) Mediterranean fruit fly, (2) Peach fruit fly, (3) Codling moth, (4) Apple maggot, (5) Mexican fruit fly, (6) Plum curculio, (7) Queensland fruit fly, (8) South American fruit fly, and (9) Western Flower Thrips.

Phytosanitary certificates are required stating that apples are free from (3), (4) (5), (6), and (9).

In August 2003, the U.S. and Taiwan agreed on a new systems approach quarantine work plan for apples that requires improved pre-screening in the packing shed, while also putting in place a system of graduated penalties for detection of codling moth. The new work plan will ensure against the type of disruption that U.S. apple exports faced in MY 2002 after the detection of two codling moths.

Taiwan defines maximum residue levels (MRLs) for around 60 chemicals. Shipments are checked on a random basis. Taiwan's Department of Health (DOH) is currently reviewing current permitted chemicals and MRLs for each. The Agricultural Affairs Section at the American Institute in Taiwan and U.S. industry have worked to ensure that all pesticide and other chemicals of concern to U.S. industry are permitted under temporary arrangement during the review period as well as to see that chemicals and residue levels will be defined in such a way as to not become a trade barrier to U.S. suppliers. The DOH review process is expected to run several years during which formal announcement of new MRLs will be made.

## The China Factor in Competition for the Post-WTO Taiwan Apple Market

Private investment has been flowing from Taiwan into China to develop Fuji apple production - particularly into Shandong province, China's major deciduous fruit farming area. As the world's largest producer of apples, China, and its potential to export large quantities of cheap, good quality apples to Taiwan now that both are in the WTO, is of concern to many apple exporters.

The entry of Chinese apples into Taiwan presently hinges on Taiwan's certification of China's phytosanitary controls in apple growing areas and handling processes. Certification will not happen until the two sides agree to negotiate how such certification is to be done. Continued uneasy political relations between the two sides of the Taiwan Strait give no indication as to when such negotiations may start. Therefore, industry believes it highly unlikely that Chinese apples will arrive in the market before 2005. However, presuming that Chinese apples will eventually be permitted in, some in industry believe that the United States can still retain its position as leading apple supplier to the island. Factors in support of this opinion include:
(1) Quality. While China has cultivated apples for centuries, the Fuji apple - in greatest demand and still fetching premiums in international markets - is a relative newcomer. Experience and time is required to develop not only the technical infrastructure (such as proper storage, handling/packing, \& transportation facilities) but also the expertise to cultivate, select, grade, package, and deliver the premium Fuji apples in the manner which Taiwan distributors and consumers expect. Apples from China smuggled into Taiwan and sold on the market in 1997 \& 1998 elicited significant curiosity from consumers but reportedly failed to impress with their appearance, taste, or price.
(2) Price. Industry watchers report that, when China exports its highest quality apples, quoted prices have not been significantly different from those quoted by U.S. suppliers. Factors for such may include continued limited high-quality supply from growers, high non-labor-related production costs, and the fact that investment in
new Fuji cultivation in China comes principally from small-scale domestic, Taiwan, and other investors interested (at least in the near term) to "meet" market prices in order to recoup investment costs.
(3) Season. China's apple season is similar to that of Washington State. Apples from other growing regions in the U.S., such as California, should face less direct competition in Taiwan from China growers.
(4) Domestic Consumption. China's own blossoming domestic demand for high quality apples may meet or even exceed domestic production capacity, leaving less for export - even as production volume expands. Also, Taiwan investors in Chinese orchards are reportedly most interested to develop domestic PRC market sales.
(5) Phytosanitary Controls. Taiwan's strict controls on codling moth in apples will likely be difficult for Chinese growers and packers to meet. Even if the two quarantine services can eventually reach agreement on a quarantine work plan, there is some doubt as to China's capability to ship pest-free fruit.

## Prices \& Marketing

Since 1998, the apple industry in Taiwan has faced a downward pricing curve as stagnant or decreasing demand is being met by increasing volumes available for import (mostly from suppliers previously under quota restrictions). With most producing countries supplying apples here, Taiwan continues to be a "buyers' market" with demand influenced significantly by supplier marketing and pricing strategies. Prices between and within apple varieties vary greatly based on seasonal consumption variations, supplier country-of-origin, supplier pricing competition, and so on. The current market bears little resemblance to that of a decade ago, when Fuji apples were available in extremely limited quantities and suppliers could demand, and receive, high premiums on sales.

As mentioned earlier in this report, the apple symbolizes many positive things to the Taiwan consumer. When purchased as a gift or to serve to others, the country of origin, size, appearance, and taste remain as important as price in the consumer's decision to buy. Therefore, to maintain its dominant position - particularly against "new" competitors such as Japan, Korea and (eventually) China - U.S. suppliers are recommended to continue working closely with Taiwan importers, distributors, and retailers to reinforce the strong positive image that U.S. apples presently enjoy in Taiwan to ensure continued consumer loyalty to U.S.- origin apples.

## Statistics

Country Commodity

Taiwan
Market Year Begin
Fresh Apples
\(\left.$$
\begin{array}{c}\begin{array}{c}2001 \\
\text { USDA }\end{array} \\
\text { Official [Old] }\end{array}
$$ \begin{array}{c}Revised <br>
Post Estimate <br>
[New] <br>

07 / 2001\end{array}\right]\)| 800 | 830 |
| ---: | ---: |
| 780 | 780 |
| 330 | 335 |
| 3 | 10 |
| 333 | 345 |
| 9500 | 8105 |
| 70 | 75 |
| 9570 | 8180 |
| 117000 | 121912 |
| 126570 | 130092 |
| 126500 | 130022 |
| 0 | 0 |
| 0 | 0 |
| 70 | 70 |
| 126570 | 130092 |

Area Planted
Area Harvested

Bearing Trees
Non-Bearing Trees
Total Trees
Commercial Production
Non-Comm. Production
TOTAL Production
TOTAL Imports


## Import Trade Matrix <br> Taiwan

Fresh Apples: Imports

| Period |  |  |
| :--- | ---: | ---: |
| Imports for: | $2001-2002$ | mt |
| 2001 | 2002 |  |
|  | 80746 | 51193 |


| Others |
| :--- |
| Chile |
| New Zealand |
| Japan |
| South Korea |
| Australia |
| France |
| South Africa |

## Export Trade Matrix Taiwan <br> Fresh Apples: Exports

| Period |  |
| :--- | :---: | :---: |
| Exports for: |  |
| $2001-2002$ mt <br> 2001 $\mathbf{2 0 0 2}$ <br>  $\quad 0 . S$. | 0 |

Others


## PSD Table

## Country Commodity

Taiwan
Concentrated Apple Juice (MT)
2002 Revised 2003 Estimate 2004 Forecast UOM USDA Official [ Estimate [IDA Official [ Estimate [DA Official [ Estimate [New]

| Market Year Begin | $01 / 2002$ |  | $01 / 2003$ |  |  | 0 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 01/2004 MM/YYYY |  |  |  |  |  |  |
| Deliv. To Processors | 0 | 0 | 0 | 0 | 0 | $0(\mathrm{MT})$ |
| Beginning Stocks | 0 | 100 | 0 | 100 | 0 | 100 (MT) |
| Production | 0 | 0 | 0 | 0 | 0 | $0(\mathrm{MT})$ |
| Imports | 0 | 2715 | 0 | 2800 | 0 | 2850 (MT) |
| TOTAL SUPPLY | 0 | 2815 | 0 | 2900 | 0 | 2950 (MT) |
| Exports | 0 | 99 | 0 | 70 | 0 | 80 (MT) |
| Domestic Consumption | 0 | 2616 | 0 | 2730 | 0 | 2870 (MT) |
| Ending Stocks | 0 | 100 | 0 | 100 | 0 | 0 (MT) |
| TOTAL DISTRIBUTION | 0 | 2815 | 0 | 2900 | 0 | 2950 (MT) |

## Import Trade Matrix

Taiwan
Concentrated Apple Juice

| Time Period | 2001-2002 | mt |
| :---: | :---: | :---: |
| Imports for: | 2001 | 2002 |
| U.S. | 188 | 25 |
| Others |  |  |
| China | 1654 | 2283 |
| New Zealand | 1 | 194 |
| Austria | 282 | 145 |
| Chile | 0 | 44 |
| Brazil | 0 | 15 |
| Oman | 196 | 0 |
|  |  |  |
| Total for Other | 2133 | 2681 |
| Others not List | 0 | 9 |
| Grand Total | 2321 | 2715 |

## Export Trade Matrix

## Taiwan

Concentrated Apple Juice

| Period | 2001-2002 | mt |
| :---: | :---: | :---: |
| Exports for: | 2001 | 2002 |
| U.S. | 1 | 15 |
| Others |  |  |
| Hong Kong | 79 | 40 |
| Indonesia | 0 | 16 |
| Malaysia | 27 | 11 |
| Singapore | 30 | 14 |
|  |  |  |
| Total for Others | 136 | 81 |
| Others not Listed | 11 | 3 |
| Grand Total | 148 | 99 |

Data for Chart on page 4.

| Import Volumes (calendaryear) in metric tons |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ |
| Apples | 150225 | 136,627 | 130,218 | 124,606 | 117,662 | 124,000 |
| European Pears | 4529 | 3621 | 5239 | 4231 | 2,530 | 1998.7 |
| Asian Pears | 455 | 379 | 353 | 550 | 5,799 | 7538.7 |
| Cheries | 7,824 | 8,522 | 9,105 | 10,420 | 8,486 | 11541 |
| Peaches | 9,294 | 11,773 | 13,230 | 14,774 | 12,735 | 10188 |
| Necta rines | 13,888 | 24,777 | 30,508 | 32,197 | 33,193 | 27550.2 |
| Plums | 12,026 | 16,442 | 16,795 | 15,457 | 13,126 | 14000 |
| Strawberries | 54 | 56 | 103 | 129 | 232 | 238.96 |
| Blueberries \& Cran | 0.6 | 0.7 | 4 | 18 | 24 | 24.24 |
| Kiwifruit | 14338 | 12,092 | 14,747 | 15063 | 14,020 | 14000 |
| Citrus | 56,036 | 43,762 | 37,423 | 38,189 | 33,147 | 34141.4 |
| Grapes | 9,263 | 15,781 | 21,644 | 16,770 | 20,346 | 23397.9 |
| Melons | 19,151 | 8063 | 11380 | 9,276 | 1,853 | 4100 |

