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Fresh Deciduous Fruit

Annual

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Report Highlights:
China's deciduous fruit production increased again this season, due mainly to the lack of negative weather effects and the continuing maturity of existing planted trees. Post estimates that apple production will increase by six percent to 22.05 million tons, grape production by 13 percent to 2.757 million tons, and pear production by four percent to 8.05 million tons. In addition, for the first time in many years, China's official fresh deciduous fruit imports are higher than Hong Kong re-exports to China of the same products.

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Executive Summary

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The improved domestic economy combined with low local fruit prices has helped Chinese fruit consumption rise. Prices for domestic fruit remain low, but have yet to affect production in any major manner. However, some acreage conversion out of deciduous fruit is occurring, as evidenced by another year of lower apple acreage. While the overall processing rate for deciduous fruit continues to hold steady at approximately ten percent, grape processing is showing increases, particularly for the production of wine.

China still exports far more fresh deciduous fruit than it imports, except in the case of grapes. Grape imports surpassed exports as during the previous year. One major difference in trade patterns over the last marketing year is official imports were higher than Hong Kong re-exports for apples, pears, and grapes. The specific reason for this situation currently is unknown, but could be a stricter import regulation enforcement, improved customs accounting, more direct importation, or any combination of these possibilities. Despite U.S. anti-dumping actions against Chinese apple juice concentrate exports, China's exports of this product were greater than during the previous marketing year.

Although China's distribution and storage infrastructure has improved over the last several years, imperfections remain and allow the country to continue as a good market for some vareities of U.S. fresh deciduous fruit.

General

Official data on China's deciduous fruit production covers apples, grapes, and pears. China's national production and acreage estimates currently are released on a more timely basis than in the past, but the release of provincial estimates often face delays. Official preliminary national estimates for the year 2000 crops will not be released until later in the year, after the harvest has already begun. The most complete set of national and provincial deciduous fruit data now available is from 1998.

Official data on tree numbers does not exist. Estimates are difficult to construct, because the vast majority of China's fresh deciduous fruit is grown by individual growers on small parcels of land. Estimates in this report are based on interviews and random samples from the major growing and trading areas.

Estimates of China's imports are based on the country's official customs statistics and Hong Kong re-export statistics. Overall, China is the main recipient of Hong Kong re-exports of fresh deciduous fruit. Although Hong Kong's data gives a good indication of the value and volume of China's actual imports, they are not a perfect indicator. A portion of products that list Hong Kong as a final destination is also known to end up in China. Since this trade tends to be unaccounted, the amounts and values going to China in this fashion are difficult to calculate.

China's official currency is the Renminbi (RMB), also known as the Yuan. All Chinese prices are converted into U.S. Dollars at the exchange rate of one Dollar equals 8.267 RMB. The exchange between these two currencies has

remained near this level for the last several years.

Production

China's deciduous fruit production will increase in 2000, but the rates of increase will be similar to last year's changes in the crop. Although no official estimates have yet been released, with the exception of grapes, industry participants expect a modest increase in this year's harvest. Post estimates that apple production will increase by six percent to 22.05 million tons, grape production by 13 percent to 2.757 million tons, and pear production by four percent to 8.05 million tons.

The continuing maturity of China's planted apple trees is believed to have contributed the most to this season's rise in production. Despite hot and dry conditions throughout the main deciduous fruit growing regions this summer, negative weather effects on the apple crop have been limited to non-existent. The same situation applies to the expected growth in China's pear production this season. A Chinese Ministry of Agriculture official last year estimated that approximately half of the country's deciduous fruit trees had reached their maximum production potential, while the remaining trees had yet to bear fruit or still were maturing towards their maximum production potential. The estimated rise in grape production is believed to be due to increases in the production and demand of processed grape products, particularly wine.

In regards to future increases in China's apple production, the peak may be reached soon. China's official acreage size in 1999 declined, the third year in a row, falling to 2.44 million acres. This acreage is greater than 1993's acreage of 2.23 million hectares , but less than 1994's acreage of 2.69 million hectares. As China's apple acreage declines and its apple orchards achieve a greater level of maturity, production eventually will level off. Although the trend indicates this situation should occur in the future, the production peak probably still is a decade away.

Production of all major deciduous fruits increased in 1999. According to recent Chinese Ministry of Agriculture data, apple production in 1999 was up 7 percent to 20.8 million tons, grapes were up 15 percent to 2.71 million tons, and pears were up 6 percent to 7.74 million tons. No official figures on the 1999 crop area for specific deciduous fruits have been published. However, a Chinese Ministry of Agriculture official recently told Post that in 1999 the total apple growing area was 2.44 million hectares, the total grape growing area 223 thousand hectares, and the total pear growing area 977 thousand hectares.

Most of China's deciduous fruit is grown by many individual growers on small parcels of land. The average amount of land each grower devotes to growing fruit is a couple of *mus* or less, one mu equals approximately one-fifteenth of a hectare. More successful growers often manage a greater amount of acreage, usually three to eight mus. Large commercial orchards with acreages in the hundreds of hectares are rare.

Grower specialization in fruit production usually depends on the land that they are using. Growers using flat land tend to diversify into many different crops. Along with deciduous fruit, they probably will also grow grains and/or vegetables. Growers with uneven land which include parts of hills or mountains often will specialize in fruit, because their land has few other uses. Some deciduous fruit growers do not even specialize in one type of fruit, using their small parcel of land to grow apples, grapes, pears, peaches or at least any combination of two at the same time. Growers following this practice are using it as a hedge against price risks. While apple and pear prices in China tend to change in tandem,

those of grapes and other fruits do not always follow the same trend.

Harvesting of all varieties of deciduous fruit in China occurs from late summer to autumn, particularly from August to mid-October. In recent years, at least with apples, attempts have been made to extend the harvest season by raising varieties that ripen early. For example, early harvest apple varieties are now becoming more prevalent in Shandong province. The Zhuguang, Teng Mu #1, and Gala apple varieties which begin their harvest season in mid-July and finish during early August are becoming more popular, but their percentage of the total crop is still small. The harvest time for pears varies across the country, from June to October. June to July is the main harvest time for pears in the southern part of China and September to October in the northern part. The bloom period for most apples and pears in China is April and for grapes May. In the southern deciduous fruit growing areas, blooming and harvesting sometimes begin a week or more before the north.

The Fuji continues to be the most widely growth apple vareity in China. According to the country's Ministry of Agriculture, Fujis account for approximately 45 percent of acreage and production. The percentage amounts in Shandong and Shaanxi respectively, China's two largest apple production regions, are 70 percent and 50 percent. The second most widely grown apple vareity in China is the New Red Star (Chinese pinyin: Xin Hong Xing), accounting for 12 percent of total acreage and production. Other popular vareities include: the Chalajin, Guoguan, Qinguan, and the Jinguan, each at less than 10 percent. The Qinguan vareity is the most popular among China's apple juice concentrate producers.

Wrapping individual apples in bags during the fruit's growth phase is occurring with greater frequency in the eastern part of China. The purpose of the bagging is not only to decrease the risks of disease and pest damage, but also to modify the fruit's color. According to industry sources, bagging the apples for most of their growing phase can allow the fruit to acquire a brighter red coloring which is liked by both domestic and certain overseas consumers. In addition, sources said that the bagging does not affect the fruit's size. According to one grower in Shaanxi, wrapped apples tend to fetch higher prices at the markets, easily earning RMB 2.00 ($0.24) per kilogram versus RMB 0.60 to 1.00 ($0.07 - 0.12) for non-wrapped apples. The investment, according to her, is quite small. Bags used for wrapping cost RMB 0.20 ($0.02) each. Despite the higher return and small investment, Post visual surveys of apple orchards in Shandong and Shaanxi this year indicate that the percentage of apple wrapping still is small, probably less than ten percent of the total harvest. Bagged apples usually are Fujis and many are exported.

Unlike apples, no single vareity dominates pear production in China, but several account for most of China's production. Ya pears are the most popular variety, accounting for 30 percent of production. They are the main variety grown in Hebei province, Shandong province, and the Tianjin/Beijing city districts. Su and Xuehua pears also are widely grown. The Su pear dominates pear production in Anhui, Shanxi, and Xinjiang. According to the national Ministry of Agriculture, the top four most widely produced pear vareities are the Ya, Su, Xuehua, and Pingguo/Apple. Altogether China mainly grows 13 different varieties of pear.

In Laoshan county near the east coast city of Qingdao, local growers are raising a pear which resembles the Bartlett variety and is locally referred to as a Yang (foreign) pear. This pear's neck is shorter than a Bartlett and its skin is yellowish in color. Introduced to the area six years ago, this variety is becoming popular with local growers, because its market prices are much higher than those of other pear varieties.

Among grapes, the most popular vareity is the Jufeng. Most of China's grape production is made up of 12 different

vareities. In the 1990s, Red Globe grape production made its debut, but the acreage presently is limited. According to one published report, Red Globe grape acreage in China during 1998 equaled 1,330 hectares, less than one precent of that year's overall grape acreage in China. The acreage mainly is located in the provinces of Liaoning (400 hectares), Hebei (330 hectares) and Shandong (120 hectares), all located on China's east coast. The same source stated that the local government of Shaanxi plans to establish a Red Globe grape production base with acreage of 13,300 hectares by the year 2005. The specific location was not cited. However, the time when domestically produced Red Globes are widely available to consumers in China may not occur in the near future. Shandong provincial agriculture officials admitted that Red Globe production in their province is plagued by major disease problems.

CHINESE PROVINCIAL APPLE PRODUCTION
(1996 - 1998)

PROVINCE	1996		1997		1998	
	1,000 ha	MT	1,000 ha	MT	1,000 ha	MT
Beijing	23.1	172,088	21.0	153,835	20.3	162,930
Tianjin	13.2	71,164	12.5	80,253	11.0	88,388
Hebei	384.8	1,566,759	371.3	1,751,374	355.3	1,930,339
Shanxi	191.7	919,660	206.1	1,101,227	196.0	1,410,718
Inner Mongol	35.8	39,200	35.1	38,439	24.0	36,729
Liaoning	261.4	1,505,993	234.6	1,611,487	217.0	1,674,628
Jilin	20.5	57,618	19.6	61,705	20.0	105,877
Heilongjiang	31.2	78,073	36.4	96,993	36.4	102,137
Shanghai	0.0	0	0.0	0	0.0	0
Jiangsu	78.9	440,737	68.0	549,159	60.8	628,721
Zhejiang	0.4	611	0.4	806	0.4	991
Anhui	42.4	218,354	42.4	272,130	32.1	257,280
Fujian	0.2	137	0.2	131	0.2	218
Jiangxi	0.0	0	0.0	0	0.0	0
Shandong	663.3	6,056,428	618.5	5,582,052	556.8	5,995,558
Henan	341.3	1,820,507	293.9	1,972,032	269.0	2,226,397
Hubei	13.5	42,984	13.8	58,644	12.5	60,029
Hunan	0.0	0	0.0	0	0.0	0
Guangdong	0.0	0	0.0	0	0.0	0
Guangxi	0.0	0	0.0	0	0.0	0
Hainan	0.0	0	0.0	0	0.0	0
Chongqing	N.A.	N.A.	2.0	4,274	2.1	6,167
Sichuan	34.5	138,831	29.5	161,166	28.4	177,420
Guizhou	7.2	4,785	6.9	5,713	7.2	6,828
Yunnan	47.2	65,763	47.7	80,330	46.4	79,767

Tibet	1.4	3,049	1.3	4,837	1.0	4,265
Shaanxi	502.0	2,958,884	488.0	2,636,537	455.4	3,473,510
Gansu	211.5	515,083	212.0	561,019	199.0	670,039
Qinghai	4.5	18,935	4.4	18,884	4.4	16,138
Ningxia	31.5	109,159	30.6	140,363	24.9	125,552
Xinjiang	45.4	247,444	42.2	275,178	41.0	240,094
SUM	2,986.9	17,052,246	2,838.1	17,218,571	2,621.6	19,480,720

Source: China State Statistic Bureau
Note: The provincial production and area figures for 1999 still are unavailable.
Total production in 1999 equaled 20.8 million metric tons and total crop area
2.44 million hectares.

CHINESE PROVINCIAL GRAPE PRODUCTION
(1996 - 1998)

PROVINCE	1996		1997		1998	
	1,000 ha	MT	1,000 ha	MT	1,000 ha	MT
Beijing	1.1	14,440	1.3	18,310	1.6	20,318
Tianjin	2.1	37,980	2.4	47,663	3.5	56,032
Hebei	22.7	304,721	25.9	361,689	31.5	404,436
Shanxi	6.7	30,687	6.4	28,178	6.3	33,393
Inner Mongol	2.2	12,617	2.6	15,142	2.2	16,826
Liaoning	11.6	185,421	11.8	193,380	14.2	275,557
Jilin	7.7	46,238	7.9	44,591	8.6	50,302
Heilongjiang	2.0	8,621	1.9	7,916	1.6	8,157
Shanghai	1.6	28,346	1.3	29,919	1.2	26,679
Jiangsu	3.9	62,707	4.9	67,907	4.2	71,577
Zhejiang	4.3	79,700	4.5	95,829	4.5	92,021
Anhui	4.7	30,797	4.5	39,684	3.6	34,281
Fujian	1.9	18,978	1.9	21,650	2.1	27,503
Jiangxi	1.7	3,871	1.6	3,375	2.2	2,551
Shandong	16.0	210,555	17.5	215,839	20.9	268,986
Henan	10.3	101,520	9.7	120,367	11.3	153,047
Hubei	4.5	35,805	3.6	49,595	4.0	53,893
Hunan	3.2	11,131	3.1	11,272	3.0	13,359
Guangdong	0.0	0	0.0	0	0.0	0
Guangxi	0.0	0	0.0	14,929	0.0	21,662

Hainan	0.0	0	0.0	2	0.0	0
Chongqing	N.A.	N.A.	1.0	5,942	1.0	8,618
Sichuan	32.6	76,814	5.3	66,659	5.1	82,611
Guizhou	6.3	6,618	2.2	6,822	3.4	7,621
Yunnan	29.0	9,008	1.2	11,697	1.6	11,881
Tibet	0.1	0	0.0	0	0.0	0
Shaanxi	55.0	48,928	5.0	39,357	4.3	41,845
Gansu	54.0	9,429	1.7	11,501	2.2	13,782
Qinghai	1.0	159	0.0	189	0.0	67
Ningxia	2.1	5,180	1.0	5,243	1.9	5,806
Xinjiang	23.5	502,866	28.0	498,160	32.0	555,408
SUM	153.5	1,883,137	158.2	2,032,807	178.0	2,358,219

Source: China State Statistic Bureau
Note: The provincial production and area figures for 1999 still are unavailable. Total production in 1999 equaled 2.71 million metric tons and total crop area 223 thousand hectares.

CHINESE PROVINCIAL PEAR PRODUCTION
(1996 - 1998)

PROVINCE	1996		1997		1998	
	1,000 ha	MT	1,000 ha	MT	1,000 ha	MT
Beijing	7.7	90,779	7.9	94,535	8.9	105,436
Tianjin	3.1	18,271	3.1	22,466	3.0	25,305
Hebei	233.7	1,977,097	230.4	2,113,339	224.3	2,388,517
Shanxi	30.2	79,189	30.4	91,603	30.8	101,843
Inner Mongol	31.0	104,341	27.3	102,115	34.5	116,421
Liaoning	92.0	477,330	80.8	471,870	82.1	610,898
Jilin	51.1	113,390	34.4	101,042	34.0	134,799
Heilongjiang	6.2	10,933	6.5	12,384	6.7	28,357
Shanghai	1.0	13,504	0.8	14,651	0.8	12,895
Jiangsu	19.3	282,530	24.0	312,562	23.0	308,453
Zhejiang	8.6	59,000	9.8	73,983	11.0	85,740
Anhui	22.8	236,069	29.1	307,332	29.5	426,452
Fujian	15.6	48,884	16.5	59,056	17.2	72,289
Jiangxi	23.3	30,926	23.5	37,466	21.3	32,784
Shandong	90.3	754,478	78.0	778,169	63.3	714,667

Henan	24.0	138,724	23.5	148,144	27.3	202,469
Hubei	41.4	341,635	48.6	480,268	51.4	564,420
Hunan	13.8	20,151	14.4	23,290	14.3	24,719
Guangdong	6.6	23,956	7.0	27,436	9.5	31,621
Guangxi	7.4	55,346	9.1	60,167	9.5	62,381
Hainan	0.0	0	0.0	0	0.8	0
Chongqing	N.A.	N.A.	9.1	31,250	11.6	52,070
Sichuan	32.6	209,006	25.0	200,372	27.8	249,712
Guizhou	6.3	29,115	9.0	31,592	2.0	38,972
Yunnan	29.0	136,243	36.1	149,387	35.3	145,803
Tibet	0.1	775	0.1	929	0.1	1,515
Shaanxi	55.0	244,382	54.0	266,063	52.0	376,370
Gansu	54.0	177,456	57.2	242,462	57.4	238,237
Qinghai	1.0	7,807	1.0	5,891	1.0	6,585
Ningxia	2.1	7,282	2.0	7,930	2.2	6,951
Xinjiang	23.5	118,033	25.4	147,123	25.8	108,783
SUM	932.6	5,806,632	924.0	6,414,877	918.5	7,275,464

Source: China State Statistic Bureau
Note: The provincial production and area figures for 1999 still are unavailable. Total production in 1999 equaled 7.74 million metric tons and total crop area 977 thousand hectares.

Crop Area

Deciduous fruit is grown in all of China's provinces, except in Hainan which is located in the country's far south. Production is mainly centered in the north, streaching from the country's far west to the northeast coast. The leading provincial producers of apples include: Shandong on the country's east coast, Shaanxi in the west, Henan in the north central, and Hebei on the east coast. For pears, the leading provincial producers are Hebei, Shandong, and Hubei in the center of the country. As for grapes, Xinjiang in the country's far west, Hebei, and Liaoning are the leading producers.

The general trend for China's apple acreage is down. Apple acreage from 1996 and 1999 declined from 2.97 million hectares to 2.44 million hectares, a decrease of around 18 percent. For this season, the Ministry of Agriculture currently estimates that acreage will decline again. The Ministry also expects the pear acreage to decline this season. In 1999, after three straight years of declines, pear acreage rose. For grapes, the trend remains upwards. China's grape acreage rose every year from 1996 to 1999 and the Ministry believes it will increase again this year.

Shandong province on China's east coast remains the country's leading apple producer, achieving 6.43 million tons of apples on 498.2 million hectares in 1999. However, acreage has been declining for the last four years and the

province's leading position soon may be affected. Causing the decline has been grower switching from apples to more lucrative crops such as cherries, strawberries, and vegetables. Over the last few years, local industry officials and participants have been predicting that Shaanxi province in the future will overtake Shandong as China's leading apple producing province. Although the general trend in Shandong's production and acreage has been down, mixed trends with Shaanxi's production and acreage indicate that these predictions may not come true anytime in the near future.

Hebei province in northern China is the country's leading pear producer and probably will continue this position into the near future. However, the southern producing provinces, according to China's Minsitry of Agriculture, are showing the greatest acreage growth. These provinces include: Zhejiang, Hubei, Sichuan, Chongqing, Jiangsu, and Jiangxi.

At the apple and pear orchard level, two major planting styles exist: row spacing and circular spacing. Between the two styles, row spacing is becoming more dominant, especially among growers with larger holdings. Row spacing refers to planting trees in distinct rows. Based a random measurements by Post over the last two years, the distince between trees in rows tends to range between two and four meters and between rows two to five meters. Circular spacing refers to planting trees in such a way as to give each tree a minimum radius from the other trees in the orchard. This minimum radius often varies from two to two and a half meters. Row spacing is dominant in the leading apple producing provinces of Shandong and Shaanxi.

As for grapes, using trellis lean-tos set in rows and cloths-line structures are popular growing arrangements. Cloths-line structures are basically a line of posts with crossbars on their tops and wire strung between their posts. Although the specific shapes, slopes, and lengths of the lean-tos may vary, spacing tends to range from one to two meters between rows. Variations exist with the cloths-line structures too. In addition, growers sometimes will place their vines on fences and other man-made structures in order to maximize their utilization of space.

Yields

Apple trees in China upon reaching full maturity produce 20 to 60 kilograms per tree each season. The rate of production among pear trees is in a slightly higher range. Planting density of apple and pear trees in China falls into a range of 80 to 270 trees per mu, 1,200 to 4,050 trees per hectare. Based on random measurement sampling of apple and pear orchards, the higher densities tend to occur in the country's eastern part. China's apple and pear yields in general depend on many factors, including the variety, weather, soil conditions, the incidence of pests and disease, and agricultural chemical use.

Approximately 60 to 70 percent of China's apple trees are bearing. A majority of the bearing trees are relatively young and most likely could still produce for another 20 to 30 years. According to a Ministry of Agriculture official, approximately half of China's apple trees are currently producing at their maximum potential, about 20 percent are producing yet still too young to be producing at their maximum, and the remaining 30 percent have yet to begin bearing fruit. The percentage of trees ending their productive life in the short run is small. In China, for apples, trees need five to seven years before reaching bearing age. In contrast, pear trees usually require only three to five years.

Like last year, the hot and dry weather during the summer in the main deciduous fruit growing regions have limited the effects of disease and pests on this year's crop. Disease and pests on average only affect one to two percent of the deciduous fruit crop in orchards that are properly managed. On those whose management is poor to average, the

percentage of the crop that can be affected is approximately five to ten percent. Industry sources say that the most prevalent apple and pear tree diseases in China are Physalospora piricola (Nose) and Valsa mali (Miyabe et Yamba). The former is mainly a pear tree disease, but has been known to affect apple trees too.

The only deciduous fruit vareity in China plauged with major disease problems has been Red Globe grapes. According to Shandong province agricultural officials, a sizable amount of their province's crop is infected with Black Pox Disease (Sphaceloma ampelinum de Bary) and Downy Mildew (Plasmopara viticola (Berk. Et Curtis) Berl. Et de Toni). The former is said to be more prevalent than the latter. The officials added that local conditions and the environment is mainly to blame for the problem. Red Globe grapes make up an extremely small percentage of China's grape crop.

Inputs

Chinese deciduous fruit growers' production costs on average range from 300 to 600 RMB per mu ($36 to $73), 4,500 to 9,000 RMB per hectare ($544 to $1,088). Specific costs per grower mainly depend on grower acreage and management methods. On a few of the better managed holdings, whose growers strive to produce superior quality fruit, production costs can reach a range as high as 1,000 to 2,000 RMB per mu ($121 to $242), 15,000 to 30,000 per hectare ($1,814 to $3,628).

Growers' main production input usually is agricultural chemicals, mainly pesticides and plant medicines. The number of applications often ranges from three to seven times per season. The specific number of applications tends to depend on various factors, i.e. weather, incidence of disease in the region, etc. Growers often will apply the chemicals themselves with simple hand sprayers. However, in some locations, individuals will sell application services to growers. These individuals often are growers themselves. Chemicals used to extend the harvest season are rare, because growers believe yields would be adversely affected.

Fertilizer usage is not great among deciduous fruit growers due to its expense. Aside from the cost, another reason for the limited use of fertilizers focuses on the land surfaces on which many apple and pear trees are grown. A sizable percentage of apple and pear trees in China are grown on uneven and sloping land which makes it difficult for growers to keep fertilizers in place in order to benefit their trees. Application on these surfaces sometimes leads to high wastage rates. This problem usually does not occur with plant medicines which growers generally apply by spraying onto the trees.

Despite continued dependence on chemicals for growing deciduous fruit in China, the Ministry of Agriculture says that they are now promoting a decrease in their usage. The officials say that environmental protection in recent times has become an important issue. In Shandong province, for example, the officials claim that they currently are encouraging more bio-friendly methods of disease and pest control. Lastly, the Ministry of Agriculture also states that no genetically modified deciduous fruit currently is grown in China. They believe that research in this area might be occurring somewhere in China, but no commercial growing exists.

The use of machinery in support of deciduous fruit planting, growing, and/or harvesting is limited to non-existent in China. Grower orchards tend to be too small to make its use cost effective.

Collective (local government owned) and large individual fruit orchards during harvest time sometimes will employ local

and migrant workers to assist with the harvest. Small growers usually do all of the harvest work themselves.

The level of grower orchard management knowledge and skills is generally low across the country, especially in regards to tree grafting and pruning. Only in Shandong province is the overall knowledge and skill level slightly higher. Compared to other provinces, greater attention was paid to management knowledge and skills much earlier

Production Policy

The government still allows free market forces to determine deciduous fruit prices and production, a policy that was implemented in 1984. Indications are for its continuation into the near future. Officials dealing with fruit production claim that the government provides some educational and technical support to growers, but growers recently interviewed by Post have claimed otherwise. In addition, government officials still believe overseas cooperation and investment are necessary to see vast improvements in their fruit industry within a short period of time.

Chinese government assistance to fruit growers is administered at the county level. According to several different provinces' agriculture bureaus, assistance generally is management advice, technical training, education concerning available vareities, and market information. Other assistance is available, but on a fee basis. For example, Hebei provincial authorities have begun establishing tree fruit hospitals in their main growing areas in order to better control disease and pest problems. Provincial agriculture bureau officials admit that the levels of assistance given to fruit growers has declined in recent years, because these growers tend to earn much more than the average farmer in China. China's national Ministry of Agriculture and the provincial agriculture bureaus manage production and do not get involved in assistance administration.

In regards to taxation, growers are taxed in a slightly different manner than the average farmer. Instead of turning over a percentage of their crop, fruit growers are assessed a National Agriculture and Forestry Specialty Product Tax which equals approximately 12 to 13 percent of each individual grower's yearly income. As with assistance, this tax is collected by the county authorities. The tax was initiated due to the huge rise in cash crop production during the 1990s. However, this tax usually is not the only tax which growers pay. Other taxes are collected, but amounts and the specific purposes (i.e. population, public security, etc.) vary from county to county across the county.

Despite provincial government deciduous fruit industry officials' claims of assistance albeit limited, several Chinese deciduous fruit growers recently interviewed by Post unanimously said that they receive no growing assistance whatsoever from any level of government. The only visible exception to this claim was a poster owned by one of the interviewed growers. According to the grower, the poster in the form of a calendar and containing growing, mangement, and chemical usage advice was distributed to them last year by the local agriculture bureau. However, this same poster also contain advertisements for ten different agricultural chemical companies, including a couple of Sino-overseas joint ventures, indicating that it originally may have been created by the chemical companies who in turn solicited the county agriculture bureaus for distribution assistance.

Allowing fruit prices to be determined by market forces has enabled growers to earn incomes which are usually higher than the average farmer. Grower tend to earn two to ten times more than farmers who focus on grains. However, consistent low farmgate prices over the last several years has dulled the allure of making money through deciduous fruit. In some production regions, growers already have taken action by switching to other crops.

Farmgate prices for deciduous fruit this year are at approximately the same level as last year. In the major growing provinces of Shaanxi and Shandong, farmgate apple prices during mid-August ranged from RMB 0.60 to 1.00 ($0.07 - $0.12) per kilogram for average quality. Poor quality apples were selling for approximately RMB 0.40 ($0.05) per kilogram. As the apple harvest progresses, these prices are expected to decrease. Most of China's apples usually are harvested in September and early October. Among all apple vareities, Fujis tend to earn higher average prices at all levels of the distribution chain. For example, at the Jinan Tikou Fruit Wholesale Market, Fuji prices during mid-August were much higher than those for other vareities. At that market, Fuji apple prices ranged from RMB 2.80 to 4.00 ($0.34 - $0.48) per kilogram versus RMB 1.40 to 2.00 ($0.17 - $0.24) per kilogram for Xin Hong Xing (New Red Star) apples, the next most expensive vareity at the market. Farmgate pear prices generally were lower than the prices for apples, while those for grapes were about the same levels as the year before, RMB 2.00 ($0.24) per kilogram.

With the possible exception of those few large growers, growers in many parts of China are generally unhappy about this situation. However, most seem resigned to it. Despite their unhappiness, most growers do not expect to switch crops and will continue growing deciduous fruit. The main reason appears to be the difficulty of converting the land for other agricultural pursuits. In the case of apples and pears, many of the trees are planted on hillsides and uneven land which has few other uses.

Shandong province is one of the few places where low prices have caused a noticeable number of crop conversions. Enticed by higher earnings from strawberries, cherries, and vegetables, a number of growers have ripped out or abandoned their apple and pear trees to raise these other crops. Sometimes growers even will plant vegetables and/or strawberries in between the tree rows. Although cherry and vegetable prices depend on the same price variables, they can sometimes bring growers more income than apples or pears at the present time. Some crop conversions out of apples also may be occurring in Shaanxi province. According to a national official, some growers in the northern part of the province are switching from apple production to walnut production.

One recent phenomena is private growers organizing themselves into unofficial cooperatives to share resources and better market their produce. These cooperatives now are few in number and tend to represent growers in specific locations. Provincial governmental bodies are aware of their existence and seem unconcerned with their activities. Whether these private groups are achieving their goals is unknown at the present time.

Government mandated standards for deciduous fruit tend to be general, but do exist. Some of the growing provinces are even issuing their own sets of standards. Shaanxi province, for example, in the early 1990s established apple standards that covered the following subjects: seedlings, tree disease treatment and preservation, planting, fresh fruit storage and preservation, and production base construction. In the area of fruit grading, no government standards currently exist, but industry has adopted certain procedures for grading apples based on size. Most local growers and wholesalers know that by sorting their fruit into big and small sizes, the bigger sized fruit can command higher market prices. Grading based on quality does not presently exist.

Government officials in general believe that their country's deciduous fruit industry will continue to improve in the future. However, they also feel that the speed and scope of improvements can be enhanced with overseas cooperation and investment. Although some international investment in fruit processing has occurred, overseas investment in deciduous fruit production is nearly non-existent. In processing, investment has mainly been concentrated in the field of juice and juice concentrate production. Overseas joint ventures such as Dole/Tropicana, Great Lakes, Kirin, and Rongzhi buy locally grown deciduous fruit to manufacture into juice for the domestic market.

In regards to deciduous fruit growing, one of the few overseas invested ventures is Fufa Zhongji in the Shandong province city of Longhua. This Singaporean venture packs locally grown apples and pears primarily for export to Southeast Asia. Not only does the venture have its own packing lines, but it also raises a portion of its own fruit. Altogether it has six packing lines, two for apples and four for pears. Surrounding the packing plant are the company's own orchards, mainly growing pears. After a few years of poor sales due to the Asian economic crisis, the venture's business has greatly improved. Although originally focusing of exporting, the venture's fruit now is sold in China too. According to reports, in Guangdong, its apples at times can sell at higher prices than imported Washington apples.

Consumption

China's urban consumers eat a large and growing amount of fruit every year. China's average per capita purchases by urban households in 1998 was 47.86 kilograms, compared to 45.48 kilograms in 1997. Fruit is consumed with most meals and is a popular snack, especially fresh deciduous fruit like apples and grapes. It is often purchased as a gift, particularly during Chinese New Year and other holidays. Rising incomes are increasing the number of consumers who can purchase fresh fruit, but the increased availability of processed foods at the same time has created more competition.

Apples are the most widely consumed fruit in China. In Guangdong province located in the country's far south and the home of many of China's richest consumers, for example, household purchasing of apples leads that of many other fruits. According to provincial statistics, annual per capita purchases of apples by Guangdong urban households in 1998 was 6.22 kilograms, an amount higher than other types of fruit. During the same years, purchases of citrus were only 3.61 kilograms and bananas 3.41 kilograms. For grapes, the purchase amount was 0.81 kilograms.

Greater fresh fruit availability for longer periods of time also has assisted greater consumption by Chinese consumers. Less than a decade ago, most Chinese apples were sold before the start of winter. According to industry sources, they along with other domestic deciduous fruits now can be purchased as late as March and April in the same marketing year. Longer periods of availability mainly are due to increases in cold storage and controlled atmosphere storage capacity in China. However, these sources also admit that consumer demand for the stored fruit is not as great as during the beginning of the season, because consumers often dislike the poorer taste which long storage times can inflict on fruit. Domestic pears generally are not kept as long in cold storage, because they do not weather the effects of lower temperatures over a long period of time as well as apples. Despite recent improvements, domestic deciduous fruit during the late spring and early summer in China is difficult to find in local marketplaces.

The percentage of each year's deciduous fruit harvest that goes into processed foods and beverages is still low, usually 10 percent or less. However, the percentages for specific fruits vary. While the percentage of the apple crop going into processed foods and beverages is close to the overall percentage, the percentage of the pear crop is usually lower and the percentage of the grape crop much higher.

According to various estimates from Chinese government and food/beverage industry sources, five to ten pecent of each year's apple crop in China is processed. The specific amount varies from year to year. The main product into which apples are processed is apple juice concentrate. According to last year's China Food Industry Yearbook, the country's total apple juice concentrate production in 1998 was 90,900 tons and required 900,000 tons of apples. The amount of apples used equaled approximately 4.6 percent of that year's total apple crop.

China's Apple Juice Concentrate Production Situation, 1998			
Province	Number of Factories	Apple Processing Capability *	Concentrate Production (Tons)
Shandong	22	257	51,800
Shaanxi	17	112	24,000
Henan	4	60	10,800
Liaoning	6	60	1,300
Shanxi	4	30	3,000
Beijing	1	5	
Jiangsu	1	5	
Total	55	529	90,900
Source: 1999 China Food Industry Yearbook			

The number of concentrate producing factories as of 1998 was 55 and most were located in Shandong province (22). Shaanxi province had the second highest number of factories, but its current number is in dispute. Various published sources cite 17 to 18 factories, but one overseas investor in Shaanxi claims that only ten are now in operation. Another published source late last year mentioned that Shaanxi authorities were limiting the numbers of new apple juice concentrate factories and trying to implement mergers between existing operations. Steadily falling international apple juice concentrate prices over the last several years was cited as the reason for the push to merge operations. In 1998, Shaanxi province accounted for over 50 percent of China's apple juice concentrate export volume and value.

In the wake of the U.S. anti-dumping case against Chinese apple juice concentrate exports, according to several sources, a year ago last August a large number of Chinese apple juice concentrate producers met in Yantai, Shandong, to discuss the situation with the China Export Chamber of Commerce, a national government organization. Export price floors were established at the meeting and based on the concentrate's acidity levels. The specific export price floors were as follows: below 1.5 percent acidity, $730/Ton FOB; between 1.5 percent and 1.8 percent acidity, $800; and above 1.8 percent acidity $850. The alleged rationale for the floors was not so much as to stop the U.S. actions, but to control prices in order to prevent other countries from following the U.S. Post does not know whether Chinese apple juice concentrate exporters completely abided by these price floors over the last 12 months, but the reports of a few overseas concentrate importers claim that Chinese export prices were at or above these floors.

China's apple juice concentrate production is seasonal, based on the availablity of raw materials. Production every year usually begins in August when the country's apple harvest starts and lasts until around the national Spring Festival holiday period which occurs sometime in January or February depending on the lunar calendar. Concentrate factories rarely maintain storage facilities for raw materials. In most cases, the apples for processing are left out in the open on the factory grounds until they are processed, exposed to the elements. In addition, nearly all large scale apple juice concentrate factories rely on imported equipment for production.

Grapes in China mostly are processed into either raisins or wine. The Ministry of Agriculture estimates that

approximately 20 percent of the grape crop every year now goes into those two products, raisins nine percent and wine 11 percent. They also feel that this year's overall percentage may be higher. According to last year's China Food Industry Yearbook, the country's total national wine output in 1998 was 229,100 tons. This source also claimed that nearly 60 wineries existed in China, but only four had production rates of over 10,000 tons per year. The amount of Shandong's grape crop which goes into wine production is claimed to be 30 to 40 percent.
Wine production in China is centered on the east coast, among the provinces and districts of Shandong, Tianjin, Hebei, and Liaoning. As for raisin production, it is concentrated in the Xinjiang region lcoated in China's far west.

The amount of the pear crop which is processed every year is usually about five percent. Canned pears is the main product, but some pears also are processed into juice concentrate.

Trade

China continues to export more fresh deciduous fruit than it imports in terms of overall value and volume, but the same does not hold true for all types of deciduous fruit. Apple and pear exports still dwarf imports, but grapes imports are significantly higher than exports. In regards to export destinations, Russia and Southeast Asian countries during marketing year 1999/2000 remained good customers as in years past. In addition, official imports were higher than Hong Kong re-exports, reverse of the usual import situation.

China's official apple exports in the marketing year 1999/2000 reached 267,924 metric tons and pears 140,854 metric tons, huge increases compared to the previous marketing year of 1998/99. During marketing year 1998/99, China's official apple exports equaled 180,919 metric tons and pears 108,907 metric tons. Russia and Southeast Asian countries were China's major export destinations, especially the Philippines for apples. Its volume increased significantly compared to the previous marketing year.

In the case of China's apple exports, different markets tend to prefer different varieties. Southeast Asian importers mainly purchase Fujis which have a sweeter taste, while Russian importers go for varieties such as the Guoguan which taste more sour. According to industry sources, Fujis account for a large portion of China's apple exports. One sources estimates that the percentage could be as high as 80 percent.

Although grape production in China still increases at huge rates every year, exports still are poor compared to both apples and pears. Export volume in 1999 did rise relative to 1998 volume, but exported amounts continue to be low. Grapes are the only fresh deciduous fruit in which China's official imports are larger than exports. For 1999, official exports were 437 metric tons and official imports 44,156 metric tons. Most of China's grape imports during marketing year 1999/2000 originated from the United States.

While last year's U.S. anti-dumping case against Chinese apple juice concentrate exports affected U.S. imports, China's overall apple juice export situation seemingly was not affected. Apple juice exports for marketing year 1999/200 were more than double compared to the previous marketing year. The volume for 1999/200 was 153,059 metric tons and for 1998/99 70,711 metric tons. European countries and Japan imported more than in years past.

The most significant development in China's fresh deciduous fruit trade during marketing year 1999/2000 was the China's official imports surpassing the Hong Kong re-export totals. China's official apple imports for marketing year

1999/2000 were 24,098 metric tons and pears 650 metric tons, while Hong Kong re-export volumes equaled 17,769 metric tons and pears 26 metric tons. During 1999, official grape imports were 44,156 metric tons and Hong Kong re-export volume for grapes 41,575 metric tons. Over the last several years, the unofficial trade traditionally has been higher. The reasons for this reversal currently are uncertain ,but the most likely explanation is either stricter import regulation enforcement, improved customs accounting, more direct importation, or any combination of these possibilities.

In years past, most of China's fresh deciduous fruit imports entered the country via Hong Kong through unofficial import channels. Under this system, some importers negotiated official exemptions to the official phytosanitary restrictions and receive special tariff rates, while others relied on unofficial channels. Much of the fruit entering through unofficial channels was not recorded in China's customs statistics, because importers using these channels often underdeclare and/or misdeclare their cargo to local customs officials.

Juice concentrate and other processed fruit products are importable and have potential for U.S. exporters despite high tariffs. However, given China's own sizable apple juice concentrate production capacity, competing against local apple juice concentrate producers might be difficult.

China's Monthly Fresh Apple Trade Summary CY 1999
(Volume: Metric Tons, Value: US$)

Month	Imports		Exports	
	Volume	Value	Volume	Value
January	737	263,096	16,606	6,701,417
February	2,112	745,169	16,569	6,480,997
March	3,172	1,109,522	14,074	5,240,373
April	5,328	1,871,724	8,977	3,351,520
May	2,114	742,528	6,272	2,378,845
June	3,737	1,434,379	6,058	2,696,669
July	3,632	1,455,038	2,354	1,036,500
August	2,305	932,787	3,992	1,346,577
September	2,561	1,022,008	19,264	5,309,003
October	718	285,390	31,043	10,108,798
November	515	205,782	48,773	16,869,356
December	502	201,279	45,271	14,448,572
Total	27,433	10,268,702	219,253	75,968,627

Source: China's Customs Statistics

China's Monthly Fresh Apple Trade Summary CY 2000
(Volume: Metric Tons, Value: US$)

Month	Imports		Exports	
	Volume	Value	Volume	Value
January	1,036	429,350	22,826	8,732,718
February	1,411	593,139	19,584	6,841,387
March	2,304	977,315	25,406	7,960,429
April	3,728	1,584,410	22,434	7,569,384
May	2,324	1,066,002	15,405	6,209,181
June	3,064	1,461,604	11,571	4,818,484
July				
August				
September				
October				
November				
December				
Total	13,867	6,111,820	117,226	42,131,583
Source: China's Customs Statistics				

China's Monthly Fresh Grape Trade Summary CY 1999 (Volume: Metric Tons, Value: US$)				
Month	Imports		Exports	
	Volume	Value	Volume	Value
January	427	186,988	64	35,967
February	1,175	553,263	26	3,500
March	3,935	1,809,854	0	0
April	7,722	3,945,764	0	0
May	2,580	1,422,050	0	0
June	4,074	2,285,733	0	0
July	1,395	931,976	4	1,332
August	506	362,213	48	13,282
September	6,410	3,490,164	46	12,299
October	5,141	2,786,347	104	64,133
November	6,207	3,330,583	100	37,956
December	4,584	2,473,009	46	8,215
Total	44,156	23,577,944	438	176,684

Source: China's Customs Statistics

China's Monthly Fresh Grape Trade Summary CY 2000
(Volume: Metric Tons, Value: US$)

Month	Imports		Exports	
	Volume	Value	Volume	Value
January	2,793	1,454,932	8	3,866
February	2,723	1,428,280	0	0
March	5,412	2,922,032	6	2,800
April	6,789	3,673,473	0	0
May	7,992	4,591,820	0	0
June	4,626	3,505,721	0	0
July				
August				
September				
October				
November				
December				
Total	30,335	17,576,258	14	6,666

Source: China's Customs Statistics

China's Monthly Fresh Pear Trade Summary CY 1999
(Volume: Metric Tons, Value: US$)

Month	Imports		Exports	
	Volume	Value	Volume	Value
January	105	33,829	10,050	2,921,773
February	395	127,443	7,162	1,675,060
March	454	146,500	6,857	1,961,890
April	495	159,870	6,093	1,844,800
May	230	75,022	3,515	924,990
June	32	10,333	4,111	891,833
July	73	40,826	3,380	677,986
August	4	2,827	5,443	1,112,067
September	29	13,452	15,077	3,558,717
October	13	6,560	16,954	4,491,121

November	13	6,793	22,511	5,131,799
December	0	288	20,282	5,003,679
Total	1,843	623,743	121,435	30,195,715
Source: China's Customs Statistics				

China's Monthly Fresh Pear Trade Summary CY 2000
(Volume: Metric Tons, Value: US$)

Month	Imports		Exports	
	Volume	Value	Volume	Value
January	51	16,053	11,618	3,037,313
February	7	8,055	7,708	1,889,867
March	64	37,880	12,787	2,886,614
April	191	106,556	20,274	4,575,173
May	160	80	8,305	2,098,388
June	44	22,887	4,785	1,501,555
July				
August				
September				
October				
November				
December				
Total	517	191,511	65,477	15,988,910
Source: China's Customs Statistics				

China's Fresh Apple Exports by Destination in MY 1999/2000
(Metric Tons)

Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000
Bahrian	0	20	5	10	35
Bangladesh	0	0	52	0	52
Brunei	0	6	0	0	6
Burma	4,495	14,062	208	0	18,765
Cambodia	125	174	244	39	582
North Korea	6	658	1,281	1,281	3,226
Hong Kong	384	1,570	2,199	2,748	6,901

India	0	0	60	19	79
Indonesia	815	2,902	3,232	5,729	12,678
Japan	37	146	22	210	415
Jordan	0	20	0	0	20
Kuwait	0	63	0	0	63
Laos	544	870	221	155	1,790
Macau	38	282	258	135	713
Malaysia	3,391	11,557	5,529	4,680	25,157
Mongolia	1,134	2,876	764	966	5,740
Nepal	0	1,604	984	117	2,705
Pakistan	40	98	0	0	138
Philippines	5,897	37,558	4,244	7,124	54,823
Saudi Arabia	0	286	165	56	507
Singapore	1,690	7,740	4,836	5,106	19,372
Sri Lanka	0	314	1,282	65	1,661
Thailand	1,568	5,699	2,484	1,592	11,343
U.A.E.	70	722	257	1,008	2,057
Vietnam	2,251	16,544	13,682	4,737	37,214
Botswana	0	0	20	0	20
Belgium	0	40	0	0	40
Great Britain	0	239	590	655	1,484
Germany	0	43	65	7	115
Italy	0	98	46	0	144
Netherlands	17	525	764	119	1,425
Spain	0	42	228	127	397
Sweden	0	127	74	0	201
Kazakhstan	29	1,543	1,201	858	3,631
Kirghiza	0	122	138	269	529
Russia	3,079	16,537	22,681	11,599	53,896
United States	0	0	0	0	0
TOTAL	25,610	125,087	67,816	49,411	267,924
Source: China's Customs Statistics					

China's Fresh Apple Imports by Destination in MY 1999/2000 (Metric Tons)					
Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000

Taiwan	46	0	0	0	46
Nepal	0	0	3	0	3
Singapore	42	0	15	0	57
Egypt	0	0	0	0	0
Australia	25	0	0	0	25
South Africa	193	0	0	0	193
Germany	0	38	0	0	38
France	0	41	0	0	41
Brazil	36	0	0	0	36
Chile	1,013	39	227	458	1,737
Canada	0	0	0	0	0
United States	2,413	1,470	4,033	2,547	10,463
New Zealand	4,730	146	472	6,111	11,459
TOTAL	8,498	1,734	4,750	9,116	24,098
Source: China's Customs Statistics					

China's Fresh Grape Exports by Destination in CY 1999 (Metric Tons)					
Country	1999 (Qtr 1)	1999 (Qtr 2)	1999 (Qtr 3)	1999 (Qtr 4)	Jan 1999-Dec 1999
Hong Kong	25	0	1	0	26
Macau	0	0	0	0	0
Singapore	0	0	30	11	41
Malaysia	0	0	9	0	9
Mongolia	0	0	1	11	12
North Korea	1	0	0	0	1
Vietnam	25	0	0	105	130
Russia	39	0	57	122	218
TOTAL	90	0	98	249	437
Source: China's Customs Statistics					

China's Fresh Grape Imports by Destination in CY 1999 (Metric Tons)					
Country	1999 (Qtr 1)	1999 (Qtr 2)	1999 (Qtr 3)	1999 (Qtr 4)	Jan 1999-Dec 1999
Japan	0	0	0	0	0

Malaysia	0	0	0	0	0
Nepal	0	0	0	0	0
Philippines	0	20	0	0	20
Thailand	0	55	0	0	55
South Africa	12	223	0	0	235
Chile	861	5,070	927	0	6,858
Canada	0	733	0	0	733
United States	4,601	6,828	7,115	15,931	34,475
Australia	50	944	270	0	1,264
New Zealand	13	503	0	0	516
TOTAL	5,537	14,376	8,312	15,931	44,156
Source: China's Customs Statistics					

China's Fresh Pear Exports by Destination in MY 1999/2000
(Metric Tons)

Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000
Bahrain	0	0	17	10	27
Bangladesh	0	0	108	301	409
Brunei	0	2	22	0	24
Burma	214	543	0	0	757
Cambodia	0	19	68	0	87
Hong Kong	4,596	9,640	2,802	2,669	19,707
India	0	20	30	0	50
Indonesia	728	5,431	5,141	5,415	16,715
Japan	9	0	0	0	9
Macau	86	586	141	77	890
Malaysia	8,081	13,838	8,614	8,918	39,451
Mongolia	0	27	0	0	27
Nepal	0	8	0	0	8
North Korea	0	2	2	0	4
Philippines	231	3,226	513	595	4,565
Saudi Arabia	20	22	0	0	42
Singapore	6,105	9,330	5,048	3,793	24,276
South Korea	0	0	0	0	0
Sri Lanka	0	74	152	0	226
Taiwan	17	0	0	5	22

Thailand	135	873	452	162	1,622
U.A.E.	75	291	97	57	520
Vietnam	1,463	7,755	2,623	1,416	13,257
Egypt	0	22	23	0	45
South Africa	0	23	0	0	23
Belgium	20	387	194	0	601
Great Britain	194	466	222	216	1,098
Germany	22	29	0	0	51
France	22	9	0	0	31
Italy	34	62	50	7	153
Netherlands	229	383	468	83	1,163
Spain	0	0	0	0	0
Austria	0	0	0	0	0
Sweden	0	20	0	0	20
Kirghizia	0	0	10	0	10
Kazakhstan	0	17	0	0	17
Russia	1,597	2,344	2,968	1,047	7,956
Honduras	22	22	0	0	44
Canada	0	1,430	1,069	126	2,625
United States	0	1,461	1,240	119	2,820
Australia	0	1,324	41	0	1,365
New Zealand	0	62	0	44	106
TOTAL	23,900	59,748	32,115	25,060	140,823
Source: China's Customs Statistics					

China's Fresh Pear Imports by Destination in MY 1999/2000
(Metric Tons)

Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000
Japan	33	0	49	281	363
South Korea	0	0	0	0	0
Malaysia	0	0	0	0	0
Thailand	24	0	0	1	25
Taiwan	0	26	0	0	26
South Africa	0	0	0	0	0
Chile	21	0	50	0	71
Canada	0	0	0	0	0

United States	0	0	0	1	1
Australia	29	0	0	0	29
New Zealand	0	0	23	112	135
TOTAL	107	26	122	395	650
Source: China's Customs Statistics					

China's Fresh Apple Juice Exports by Destination in MY 1999/2000 (Metric Tons)					
Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000
Cyprus	0	0	0	0	0
Hong Kong	50	49	65	116	280
India	0	0	19	58	77
Japan	2,276	5,248	4,954	6,368	18,846
Israel	40	173	259	175	647
Macau	0	7	0	0	7
Malaysia	0	42	25	21	88
Mongolia	3	0	0	0	3
Philippines	20	0	19	3	42
Saudi Arabia	0	0	0	110	110
Singapore	95	66	37	56	254
South Korea	20	395	527	39	981
Thailand	37	41	28	89	195
Turkey	0	233	205	410	848
Taiwan	315	251	228	520	1,314
Egypt	0	0	0	19	19
Mauritius	0	58	40	81	179
South Africa	237	2,393	1,229	1,640	5,499
Belgium	0	0	0	0	0
Great Britain	0	574	314	854	1,742
Germany	2,319	12,462	4,574	3,404	22,759
France	0	0	945	0	945
Ireland	0	40	40	0	80
Italy	0	1,980	1,742	495	4,217
Netherlands	395	19,267	10,789	3,959	34,410
Greece	0	0	0	20	20
Spain	0	1,009	220	123	1,352

Austria	0	78	0	238	316
Finland	0	82	776	82	940
Hungary	0	0	0	0	0
Denmark	39	264	185	39	527
Poland	0	1,117	1,012	214	2,343
Romania	0	0	0	1,228	1,228
Sweden	0	158	265	100	523
Switzerland	0	0	0	0	0
Kazakhstan	0	0	0	41	41
Russia	39	356	1,077	1,040	2,512
Ukraine	0	1,476	495	575	2,546
Dominican Rep.	0	0	0	42	42
Mexico	0	0	0	213	213
Puerto Rico	0	0	0	76	76
Canada	115	2,973	2,529	1,418	7,035
United States	411	5,063	17,571	5,792	28,837
Australia	1,031	4,685	2,506	2,685	10,907
New Zealand	0	20	20	19	59
Others	0	0	159	99	258
TOTAL	7,442	60,560	52,854	32,461	153,059
Source: China's Customs Statistics					

China's Fresh Apple Juice Imports by Destination in MY 1999/2000
(Metric Tons)

Country	1999 (Qtr 3)	1999 (Qtr 4)	2000 (Qtr 1)	2000 (Qtr 2)	Jul 1999-Jun 2000
Hong Kong	0	1	0	2	3
Japan	0	0	0	0	0
Malaysia	0	0	0	0	0
South Korea	3	1	3	5	12
Taiwan	19	4	11	9	43
South Africa	5	17	17	17	56
Belgium	2	0	0	0	2
Great Britain	3	0	1	2	6
Germany	20	10	0	5	35
France	0	0	0	0	0
Netherlands	4	3	0	0	7

Spain	0	0	1	4	5
Hungary	21	0	0	34	55
Canada	2	33	0	0	35
United States	21	1	2	7	31
Australia	68	19	82	17	186
New Zealand	1	1	0	0	2
TOTAL	169	90	117	102	478
Source: China's Customs Statistics					

HONG KONG RE-EXPORTS TO CHINA:
(Value: U.S.$ thousands, Volume: Metric Tons)

APPLES, FRESH:

Origin	MY 1998/99		MY 1999/2000	
	Value	Quantity	Value	Quantity
U.S.A.	20,610	25,909	8,622	12,097
Netherlands	0	0	1,430	1,908
New Zealand	964	949	431	490
Australia	225	171	40	48
U.S. Oceania	31	36	0	0
Chile	1,426	2,451	1,520	2,692
Brazil	248	312	47	109
Japan	28	35	0	0
South Africa	12	17	32	56
Thailand	22	23	185	255
Taiwan	0	0	0	0
Italy	0	0	36	69
Armenia	83	96	0	0
Others	0	0	11	45
Total	23,649	29,997	12,354	17,769

Source: Hong Kong Re-export Statistics, Hong Kong Department of Census

HONG KONG RE-EXPORTS TO CHINA:
(Value: U.S.$ thousands, Volume: Metric Tons)

GRAPES, FRESH:

Origin	CY 1998		CY 1999	
	Value	Quantity	Value	Quantity
U.S.A.	44,359	47,662	18,253	18,655
South Africa	0	0	460	829
Thailand	0	0	121	152
Australia	24	7	3,132	2,875
New Zealand	46	25	0	0
Chile	263	285	14,790	19,049
Others	2	2	20	15
Total	44,694	47,981	36,776	41,575
Source: Hong Kong Re-export Statistics, Hong Kong Department of Census				

HONG KONG RE-EXPORTS TO CHINA: (Value: U.S.$ thousands, Volume: Metric Tons)				
PEARS AND QUINCES, FRESH:				
Origin	MY 1998/99		MY 1999/2000	
	Value	Quantity	Value	Quantity
U.S.A.	56	108	0	0
Australia	34	47	0	0
Japan	592	414	0	0
Chile	120	175	0	0
South Africa	0	0	15	26
South Korea	1	3	0	0
Others	0	0	0	0
Total	804	746	15	26
Source: Hong Kong Re-export Statistics, Hong Kong Department of Census				

Trade Policy

China's import tariff rates for fresh deciduous fruit have remained unchanged since last year. The specific rates are as follows: apples 30 percent, pears 30 percent, and grapes 40 percent. In addition, a Value Added Tax is assessed and

for these fruits it equals 13 percent. The last time Chinese import tariff rates for fresh deciduous fruit declined was in 1997.

With China's upcoming entry into the World Trade Organization (WTO), import tariffs on agricultural products are expected to fall in the near future. Based on the recent WTO accession agreement which China signed with the U.S., Chinese import tariffs by the year 2004 are expected to decrease to 10 percent for apples, 10 percent for pears, and 13 percent for grapes.

China agreed to allow the importation of fresh grapes from California growing areas in 1997. Californian grapes and Washington state apples currently are the only two U.S. deciduous fruits that are not restricted from entering China for phytosanitary reasons. As for other countries' deciduous fruit, China also allows the importation of Australian apples from Tasmania and certain varieties of New Zealand apples.

Marketing

Both domestic and imported fresh deciduous fruit can be found in wholesale and retail markets all over China. While the amounts and varieties of imported fresh deciduous fruit have risen over the years, the same also can be said of domestic origin fruit. For domestic deciduous fruit, this development is largely due to improved distribution from the farm to the market. However, poor packing and storage methods among the distributors and marketers of domestic fruit should continue to maintain a market in China for imports.

Growers for many years mainly relied on local government offices and companies to buy and market their fruit. Growers at the same time did have (and still do) the opportunity to sell their fruit themselves at the local free markets, but competition among themselves for the same local customers and the high costs versus returns kept them from traveling too far away from their land to sell their crop at other locations constrained potential earnings. In addition, relatively small individual grower crops prevented direct sales to volume fruit buyers such as processors and exporters. Processors and exporters did not want the troubles involved with consolidating small purchases from a large numbers of growers.

The appearance of private distributors in the latter half of the 1990s has helped growers by giving them more sales options and better prices through greater buyer competition. Operating mainly during the harvest seasons, these private distributors buy in major growing regions and then sell locally or to other parts of the country where supply of the products is not as great. The number of these private produce distributors in China is estimated at over 100,000 and the competition between them is fierce. According to one such private distributor in Shandong province and who sells locally, he usually earns only RMB 0.20 ($0.02) per kilogram of fruit. When buying from growers, these distributors during the harvest season drive to growing areas and wait for growers to come to sell their produce.

Despite the appearance of new market participants in the distribution system, local government offices and companies have not been totally put out of business. Some have improved their service and prices to meet the competition. In addition, some volume buyers still rely on them, because of relationships between the volume buyer and the local government and in locations quite distant from major urban areas the local government office and/or company still may be the only big distributor buyer in the locale. However, the volumes of fruit handles by these offices and companies is low compared to total production. According to Hebei provincial officials, their government-owned companies and

offices now handle the distribution of only 30 percent of the province's entire fruit output. The remainder is handled by individual growers and private companies.

Local governments have helped distribution in other ways too. The Shaanxi provincial government invested in the establishment of a Shaanxi fruit wholesale market in Dongguan county in Guangdong province. Starting in late 1997, many Shaanxi fruit companies have set up operations at the market to tackle both the local Guangdong market and the export markets of Hong Kong and Southeast Asia. After nearly three years, the market still is in business.

An enhanced domestic distribution system has greatly helped China's fresh deciduous fruit industry, but limited use of proper packing techniques and storage facilities still acts as a constraint to the scale of further improvements. A large majority of domestic distributors operate with few facilities and prefer using large amounts of labor in place of capital. Consequently, fruit is stored in facilities at the prevailing air temperature and handled by people instead of machinery, often quickly degrading quality over time. Old underground bunkers, caves, and dirt pits remain widely used as storage sites for fruit. In addition, this arrangement tends to limit their operation period every year from around harvest to several months afterwards. In contrast, many domestic distributors and importers of imported fruit maintain cold storage facilities to extend the sales period of their products.

Growers raising more than several mus of fruit often will maintain their own simple storage facilities. These facilities tend to resemble underground bomb shelters with packed dirt floors and no cooling equipment. One such facility in Shaanxi province visited by Post had an estimated storage capacity of 5,000 kilograms. The owner claimed that in his facility Fuji apples can stay in good condition until December (three to four months after harvest) and New Red Star apples until May (eight to nine months after harvest).

The storage situation is changing, albeit slowly, due to the establishment and operation of new cold and controlled atmosphere storage capacity. Four controlled atmosphere storage facilities now operate in China and more are expected to open in the near future. According to industry sources, controlled atmosphere storage facilities exist in the Shandong provincial cities of Longkou, Penglai, and Yantai, plus another in the Shaanxi city of Xian. The Shandong facilities are all relatively small with capacities ranging from 1,000 to 2,000 tons and were built over the last three to five years. The Xian facility is larger, a 8,000 ton capacity. Another facility is currently under construction in Qingdao and others in the Liaoning province cities of Dalian and Yingkou. All of the existing controlled atmosphere storage facilities are mainly used to store apples. Cold storage facilities for fruit are becoming more and more prevalent, but they tend to be poorly constructed and/or technologically primitive. China's total cold storage capacity for fruit is unknown. No known figures or estimates exist. Greater cold storage capacity and the introduction of controlled atmosphere facilities has increased the period of availability of domestically produced fresh fruit, but still falls short of making the fruit available year round. One industry participant claims that Shaanxi's cold storage capacity for fruit covers less than 20 percent of the crop every year. Published sources claim coverage across the nation ranges from 15 percent to 20 percent.

Even with enhanced distribution channels and more cold storage capacity, crop wastage rates can be high every year. One industry source claimed that approximately 15 percent of Shaanxi province's apple crop went to waste last year and another sets the province's rate even higher at 35 percent. The province is China's second largest apple producing region. A source in Sichuan told Post last year a sizable amount of that province's apple crop never reached market and went to waste due to poor transportation infrastructure and the lack of distribution channels, particularly in the province's numerous mountain areas. Along with poor distribution and transportation infrastructure, excess handling

from harvesting to final retail sale also has been cited as a reason for the high wastage rates.

Adding further difficulty to distributors' operations is the growers' tendency to sell most of their fruit immediately after harvest. Growers rarely invest in storage facilities for themselves. For parts of the harvest that they do not immediately sell, burying fruit underground and putting it in caves are common storage methods.

APPLE PRODUCTION in CHINA Fresh Apples (HA) (K Trees) (MT)						
Market Year		07/98 Revised 1998		07/99 Prelim 1999		07/2000 Forecast 2000
Area Planted		2,621,600		2,440,000		2,302,000
Area harvested						
Bearing Trees						
Non-bearing Trees						
Total trees						
Commercial Production						
Non-commercial Prod.						
Total Production		19,480,720		20,800,000		22,050,000
Total Imports		27,000		24,098		22000
Total Supply		19,507,720		20,824,098		22,072,000
Domestic Fresh Cons		18,209,700		18,806,174		19,787,000
Exports, Fresh Only		181,000		267,924		285,000
For Processing		1,117,020		1,750,000		2,000,000
Withdrawl from Market						
Total Utilization		19,507,720		20,824,098		22,072,000

GRAPE PRODUCTION IN PRC Fresh Grapes (HA) (K Trees) (MT)						
Calendar Year		01/98 Revised 1998		01/99 Prelim 1999		01/2000 Forecast 2000
Area Planted		178,000		223,000		240,000
Area harvested						
Bearing Trees						
Non-bearing Trees						
Total trees						
Commercial Production						
Non-commercial Prod.						

Total Production		2,358,219		2,710,000		2,757,000
Total Imports		48,000		44,156		42,000
Total Supply		2,406,219		2,754,156		2,799,000
Domestic Fresh Cons		1,981,073		2,211,719		2,192,100
Exports, Fresh Only		646		437		400
For Processing		424,500		542,000		606,500
Withdrawl from Market						
Total Utilization		2,406,219		2,754,156		2,799,000

PEAR PRODUCTION IN CHINA
Fresh Pear (HA) (K trees) (MT)

Market Year		07/98 Revised 1998		07/99 Prelim 1999		07/2000 Forecast 2000
Area Planted		918,500		977,000		945,000
Area harvested						
Bearing Trees						
Non-bearing Trees						
Total trees						
Commercial Production						
Non-commercial Prod.						
Total Production		7,275,464		7,740,000		8,050,000
Total Imports		800		650		550
Total Supply		7,276,264		7,740,650		8,050,550
Domestic Fresh Cons		6,803,564		7,199,796		7,490,550
Exports, Fresh Only		108,900		140,854		150,000
For Processing		363,800		400,000		410,000
Withdrawl from Market						
Total Utilization		7,276,264		7,740,650		8,050,550

Trade Marix
Apples, Fresh

	Exports for MY 1999/2000 to:			Imports for MY 1999/2000 to:	
-	U.S.	0	-	U.S.	10,463
-	Other		-	Other	
	Philippines	54,823		New Zealand	11,459
	Russia	53,896		Chile	1,737

	Vietnam	37,214		South Africa	193
	Malaysia	25,157		Singapore	57
	Singapore	19,372			
	Burma	18,765			
	Indonesia	12,678			
		---			---
	Total of Others	221,905		Total of Others	13,446
	Others not listed	46,019		Others not listed	189
		---			---
	Grand Total	267,924		Grand Total	24,098

Note: For Exports and Imports, China's official customs statistics were used.

Trade Marix
Grapes, Fresh

	Exports for MY 1999 to:			Imports for MY 1999 from:	
-	U.S.	0	-	U.S.	34,475
-	Other		-	Other	
	Russia	218		Chile	6,858
	Vietnam	130		Australia	1,264
	Singapore	41		Canada	733
	Hong Kong	26		New Zealand	516
	Mongolia	12		South Africa	235
	Malaysia	9		Thailand	55
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	Total of Others	436		Total of Others	9,661
	Others not listed	1		Others not listed	20
		---			---
	Grand Total	437		Grand Total	44,156

Note: For Exports and Imports, China's official customs statistics were used.

Trade Marix
Pears, Fresh

	Exports for MY 1999/2000 to:			Imports for MY 1999/2000 to:	
-	U.S.	2,820	-	U.S.	1

	-	Other			-	Other	
		Malaysia	39,451			Japan	363
		Singapore	24,276			New Zealand	135
		Hong Kong	19,707			Chile	71
		Indonesia	16,715			Australia	29
		Vietnam	13,257			Taiwan	26
		Russia	7,996			Thailand	25
		Philippines	4,565				
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		Total of Others	125,967			Total of Others	649
		Others not listed	12,067			Others not listed	0
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		Grand Total	140,854			Grand Total	650
Note: For Exports and Imports, China's official customs statistics							