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# Japan

# **Stone Fruit Annual**

# 2018 Stone Fruit Annual

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# **Report Highlights:**

In marketing year (MY) 2018/19, reduced production and higher prices of U.S. cherries led to a 46 percent decline in exports to Japan to an estimated 2,800 metric tons (MT). Japanese area planted continued its long-term trend of decline while a gradual shift from traditional to new varieties that extend the harvest season further reduced the area harvested. Additionally, a hot, dry growing season reduced the weight of Japanese peach production in MY 2018/19, resulting in a smaller fruit size, and hence a reduced production forecast by 2.3 percent to 122,000 MT. U.S. exports of nectarines to Japan is forecast to decrease by 15 percent to 140 MT in MY 2018/19.

Key words: JA8050, stone fruit, cherry, peach, nectarine, sakuranbo, satonishiki, benishuho.

#### **Commodities:**

Fresh Cherries,(Sweet&Sour) Fresh Peaches & Nectarines

#### **Cherries:**

#### PS&D

| Cherries (Sweet&Sour), Fresh | 2016/2017<br>Jan 2016 |          | 2017/2018<br>Jan 2017 |          | 2018/2019<br>Jan 2018 |          |
|------------------------------|-----------------------|----------|-----------------------|----------|-----------------------|----------|
| Market Begin Year            |                       |          |                       |          |                       |          |
| Japan                        | USDA Official         | New Post | USDA Official         | New Post | USDA Official         | New Post |
| Area Planted                 | 4810                  | 4810     | 4800                  | 4750     | 0                     | 4700     |
| Area Harvested               | 4420                  | 4420     | 4410                  | 4360     | 0                     | 4300     |
| Bearing Trees                | 0                     | 0        | 0                     | 0        | 0                     | 0        |
| Non-Bearing Trees            | 0                     | 0        | 0                     | 0        | 0                     | 0        |
| Total Trees                  | 0                     | 0        | 0                     | 0        | 0                     | 0        |
| Commercial Production        | 17700                 | 17700    | 17000                 | 17200    | 0                     | 16700    |
| Non-Comm. Production         | 2100                  | 2100     | 2000                  | 1900     | 0                     | 1800     |
| Production                   | 19800                 | 19800    | 19000                 | 19100    | 0                     | 18500    |
| Imports                      | 4600                  | 4619     | 5000                  | 5248     | 0                     | 2800     |
| Total Supply                 | 24400                 | 24419    | 24000                 | 24348    | 0                     | 21300    |
| Fresh Dom. Consumption       | 22690                 | 22708    | 22250                 | 22627    | 0                     | 19599    |
| Exports                      | 0                     | 1        | 0                     | 1        | 0                     | 1        |
| For Processing               | 1710                  | 1710     | 1750                  | 1720     | 0                     | 1700     |
| Withdrawal From Market       | 0                     | 0        | 0                     | 0        | 0                     | 0        |
| Total Distribution           | 24400                 | 24419    | 24000                 | 24348    | 0                     | 21300    |
|                              |                       |          |                       |          |                       |          |
| (HA),(1000 TREES),(MT)       |                       |          |                       |          |                       |          |

#### Crop Area

The crop area for cherry production in Japan continues its gradual decline, primarily due to aging farmers and the lack of successors and labor. However, the rate at which the area tree crops (such as cherries) is reducing is slower than that of field crops. One farmer explained the difference as due to the availability of fruit-bearing trees as opposed to a crop that they have to sow each year. The government of Japan (GOJ) encourages new farmer entry, and the expansion and consolidation of land (including of cherry farms), but has not been successful for three reasons. Almost all fresh cherry farms in Japan are family-owned. Therefore, reliable labor is largely limited to family members - although the local growers association Japan Agriculture (JA)<sup>1</sup> can arrange for some part-time labor to provide some support for cherry farmers (particularly during harvest). Second, although regulations on the establishment of agricultural corporations have been relaxed, there has been little incorporation of farms, which would bring new investment to farming. Third, very little of Japanese cherry production is

<sup>&</sup>lt;sup>1</sup> JA is engaged in various activities in support of agriculture in Japan, including, for example, supplying production inputs, offering credit and insurance programs, providing farm guidance, and marketing farm products.

mechanized or automated, largely due to the demand for high quality produce. These issues are tied closely to cultural and economic customs and are thus unlikely to be resolved in the coming years.

Yamagata Prefecture is the leading cherry producing region in Japan, and has been encouraging the transition from the traditional cherry variety to "Benishuho", or other varieties that extend the marketing period and facilitate exports (Chart 1; more in "Production" section below). Therefore, the rate of decline in the area harvested has outpaced that of the area planted as trees are taken out of production and new trees have yet to begin bearing fruit. Multiple sources informed FAS/Tokyo that this variety transition may continue until 2025 or beyond.

Based on these reasons, the marketing year (MY) 2017/18 fresh cherry area planted and area harvested declined to 4,750 hectare (ha) and 4,360 ha, respectively. FAS/Tokyo forecasts a continuation of this year-to-year reduction in fresh cherry area planted in MY 2018/19 to 4,700 ha and 4,300 ha area harvested.



# Chart 1 - Japanese Cherry Cultivars

Source: Ministry of Agriculture, Forestry and Fisheries (MAFF) and Yamagata prefecture

#### Production

The climate conditions necessary to produce cherries to the high standards demanded by Japanese consumers are specific. Winter temperatures must be low enough to break down dormancy, precipitation must be low before the harvest period in June to avoid split fruit, and temperatures must fluctuate greatly between day and night to increase sweetness. Yamagata prefecture, located 250 miles

north of Tokyo, has the conditions that satisfy all of these requirements, as well as soil with exceptional drainage. As a result, Yamagata produces 76 percent of Japan's fresh cherries.

Hokkaido, located 500 miles north of Tokyo, is the second largest producer with 8 percent of Japan's cherry production, but this region's large flat fields are generally used to cultivate other crops such as soybeans and potatoes. Yamanashi prefecture, located 80 miles west of Tokyo, is located at the base of a mountain range and provides suitable climate for cherry production. Its proximity to Tokyo provides an advantage in distribution and marketing. However, Yamanashi focuses on grape and peach production over cherries. Yamanashi promotes a significant portion of its cherries to people from the greater Tokyo via customer cherry picking. In fact, sources in Yamanashi informed FAS/Tokyo that nearly 50 percent of Yamanashi's cherries, accounting for 3 percent of Japan's cherry production, are harvested through pick your own promotions, which enable these cherry farmers to save on labor expenses.

The leading variety of Japanese cherries is Satonishiki, which accounts for roughly 66 percent of production (Chart 1). Napoleon was the leading variety in 1980's, but was produced for processing. As the market shifted to fresh cherry consumption, farmers quickly switched to production of Satonishiki and Napoleon trees are now generally used for pollination. Satonishiki has established a distinctive reputation among Japanese consumers, but the fruit is not suitable for exports due to its relatively small size (19-22 mm in average diameter) and soft skin. Benishuho, by comparison, is larger (25 mm in average diameter) and soft skin. Benishuho, by comparison, is larger (25 mm in average diameter) and has thicker skin and a longer shelf life, making it more suitable for export. Benishuho also allows farmers to extend the cherry season until mid-July due to its early flowering and late maturity. Therefore, Yamagata prefecture has been converting acreage and promoting Benishuho cultivation, which now accounts for 13-15 percent of the market.

Yamagata prefecture has recently registered a new variety (but has yet to select a commercial name) that is larger in size (over 28 mm) and will be in the Japanese market beginning in 2022. Yamagata prefecture is adopting these changes to production, in part, to facilitate its strategy of exploring export market opportunities outside of Japan, particularly in Asia.

In MY 2017/18, although the weather was favorable during most of the cultivation period, early flowering varieties (other than Satonishiki) were slightly damaged from frost during flowering, resulting in a 0.5 percent decrease in production to 19,100 metric tons (MT), of which 90 percent (17,200 MT) was distributed commercially. In MY 2018/19, the average number of fruit per branch was slightly less than last year due to a large number of pre-harvest fruit drops. Together with slightly reduced acreage, Japan's total cherry production is estimated to decline by another three percent to 18,500 MT in MY 2018/19, of which 16,700 MT is forecast for commercial distribution.

## **Consumption**

Japan's cherry season usually begins in mid-May with the arrival of imported red cherries from the United States. Early varieties of domestically produced yellow cherries can be seen in the Japanese markets as early as late-May, but the distribution of the dominant variety "Satonishiki" doesn't begin until mid-June. The period between mid-May and mid-June is the prime time for U.S. cherries, as they are the only seasonal fruit available (bananas and others being available at any time of the year). Successful marketing during this period will drive demand and provide more shelf space at retail outlets until the end of the season in early July (see "marketing" section for more details). However, if the early cherry imports fail to make a good impression on consumers, retailers will devote shelf space to domestic cherries and other competing fruits such as bananas and kiwi fruit.

Many Japanese cherry farmers earn the majority of their income from the production of premium cherries. These "premium" cherries are sold as gifts between June and July, or at high-end supermarkets. Local contacts informed FAS/Tokyo that approximately 30 percent of cherry production is sold as premium. In addition, an increasing volume of premium cherries is distributed through direct online marketing. Farmers exert great efforts to increase their volume of "premium" cherries by thinning at three different stages - budding, flowering, and immature fruit. As a result, domestic production is kept low enough to avoid oversupply and maintain high prices that support farmers.

In MY 2017/18, a slight reduction in domestic production was offset by increased imports of U.S. cherries, maintaining level distribution of 24,348 MT. In MY 2018/19, in addition to the estimated reduction of domestic production by three percent, the large reduction in imported U.S. cherries (described in below "trade" section) led FAS/Tokyo to forecast Japanese cherry distribution to drop 12.5 percent to 21,300 MT.

## Trade

Imported cherries are often referred to as "American Cherries" in Japan because 98 percent of Japan's imported cherries originate from the United States. As mentioned, U.S. cherries are one of the few fruits to market in-season between late April and early June, and thus have enjoyed a premier retail position in Japan for many years. However, fruit with competitive pricing and year-round availability, such as bananas and kiwi fruit, have made steady inroads during this season. Between increasing competition from other fruit and increasing demand for U.S. cherries in other Asian markets, U.S. cherry exports to Japan have been declining continuously since 2010, down to 4,619 MT in MY 2016/17.

In MY 2017/18, favorable growing conditions in U.S. cherry producing regions led to increased production and lower prices, resulting in strong demand in the Japanese market, climbing to 5,248 MT. However, reduced U.S. cherry production in MY 2018/19, and higher prices, significantly reduced exports to Japan in MY 2018/19. Accordingly, FAS/Tokyo estimates that the volume of U.S. cherry imports will decrease by 46.6 percent to 2,800 MT in MY 2018/19.

Although Japan, especially Yamagata prefecture, continues to pursue opportunities to export Japanese cherries, the export volume remains negligible (approximately one MT).

| Fresh Cherries (HS 0809.29) |                |              |                |                  |                |              |  |  |
|-----------------------------|----------------|--------------|----------------|------------------|----------------|--------------|--|--|
|                             | MY 2016/17     |              | MY             | 2017/18          | MY 2018/19*    |              |  |  |
|                             | Volume<br>(MT) | Import Share | Volume<br>(MT) | Import Share     | Volume<br>(MT) | Import Share |  |  |
| World                       | 4,619          |              | 5,248          | 1<br>1<br>1<br>1 | 2,920          |              |  |  |
| United<br>States            | 4,562          | 98.4 %       | 5,157          | 98.3 %           | 2,800          | 95.9 %       |  |  |
| Chile                       | 16             | 0.4 %        | 41             | 0.8 %            | 60             | 2.1 %        |  |  |
| Australia                   | 27             | 0.6 %        | 34             | 0.7 %            | 40             | 1.4 %        |  |  |
| New<br>Zealand              | 14             | 0.3 %        | 16             | 0.3 %            | 20             | 0.7 %        |  |  |

Source: Global Trade Atlas

Note: Asterisk indicates FAS/Tokyo estimation. Numbers in parenthesis indicates trade share in Japan.

#### Marketing

The most important factor for the successful marketing of U.S. cherries is price. Several wholesalers and retailers informed FAS/Tokyo that the average retail price of yellow cherries is around 3,000 Japanese Yen (JPY) per kilogram (kg) (approximately \$27 per kg) in MY 2018/19. The average retail price for U.S. cherries was 1,700 JPY per kg (approximately \$15 per kg), which rose about 20 percent over the previous year due to lower production in the United States. According to sources, the highest price that retailers believe U.S. cherries are competitive in the Japanese market is 40-50 percent the price of domestic cherries.

#### Policy

There have been no policy changes that affect the production of cherries in the last year. See the 2013 Japan Stone Fruit Annual (JA3035) for details about Japan's systems sanitary and phytosanitary treatment of cherries. The import duty of fresh cherries (Tariff code: HS 0809.29) is 8.5 percent.

#### **Peaches and Nectarines:**

#### PS&D

| Peaches & Nectarines, Fresh | 2016/2017<br>Jan 2016 |          | 2017/2018     |          | 2018/2019     |          |  |
|-----------------------------|-----------------------|----------|---------------|----------|---------------|----------|--|
| Market Begin Year           |                       |          | Jan 20        | Jan 2017 |               | Jan 2018 |  |
| Japan                       | USDA Official         | New Post | USDA Official | New Post | USDA Official | New Post |  |
| Area Planted                | 10500                 | 10500    | 10245         | 10500    | 0             | 10400    |  |
| Area Harvested              | 9710                  | 9710     | 9545          | 9700     | 0             | 9600     |  |
| Bearing Trees               | 0                     | 0        | 0             | 0        | 0             | 0        |  |
| Non-Bearing Trees           | 0                     | 0        | 0             | 0        | 0             | 0        |  |
| Total Trees                 | 0                     | 0        | 0             | 0        | 0             | 0        |  |
| Commercial Production       | 116000                | 116000   | 115000        | 115100   | 0             | 112200   |  |
| Non-Comm. Production        | 11300                 | 11300    | 10000         | 9800     | 0             | 9800     |  |
| Production                  | 127300                | 127300   | 125000        | 124900   | 0             | 122000   |  |
| Imports                     | 100                   | 114      | 200           | 165      | 0             | 140      |  |
| Total Supply                | 127400                | 127414   | 125200        | 125065   | 0             | 122140   |  |
| Fresh Dom. Consumption      | 112100                | 112106   | 110300        | 109555   | 0             | 106140   |  |
| Exports                     | 1300                  | 1308     | 1400          | 1710     | 0             | 2500     |  |
| For Processing              | 14000                 | 14000    | 13500         | 13800    | 0             | 13500    |  |
| Withdrawal From Market      | 0                     | 0        | 0             | 0        | 0             | 0        |  |
| Total Distribution          | 127400                | 127414   | 125200        | 125065   | 0             | 122140   |  |
|                             |                       |          |               |          |               |          |  |
| (HA) ,(1000 TREES) ,(MT)    |                       |          |               |          |               |          |  |

## Crop Area

Similar to the cherry case, Japan's aging farmers and the lack of young successors, are the major challenges affecting peach and nectarine production. Consequently, planted area and harvested area of peaches and nectarines have been on continuous decline since 2014. In MY 2017/18, Japan's planted and harvested area of peaches and nectarines decreased marginally to a total of 10,500 and 9,700 ha, respectively.

The major producing regions in Japan - Yamanashi (32.6 percent), Fukushima (16.3 percent), and Nagano (10.7 percent) - account for nearly 60 percent of Japan's peach harvested area (Chart 2). These regions are generally mountainous, which provide the great swings between high and low temperatures that increase sweetness.

Yamanashi prefecture, located 80 miles west of Tokyo, is Japan's largest peach production region with approximately 33 percent of the national market share. Yamanashi's peach acreage has been decreasing annually at the rate of 0.5-1.0 percent. However, Yamanashi has recently begun promoting its unique environment of having the most solar hours in Japan. This successful promotion has increased the number of agricultural corporations operating in Yamanashi 10-fold since 2007. Many employees of these corporate farms are applying their experience to become independent farmers in the future. Therefore, Yamanashi prefecture expects a continuing trend of new, relatively young, farmers to enter the agricultural sector beginning in the near future.



Chart 2 - Japan's Peach Harvested Area by Prefectures in MY 2017/18

Source: MAFF

In early July 2018, heavy rain caused flooding and landslides throughout a wide area of western Japan, including the Okayama prefecture, the sixth largest producer of peaches. Although Okayama's peach acreage and production accounts for only about 6.5 percent of the national total, up to 20 percent of these peach farms are estimated to be damaged. Consequently, Japan's peach planted and harvested area is forecast to drop one percent in MY 2018/19 to 10,400 ha and 9,600 ha, respectively.

## Production

Although Yamanashi produced the highest volume of peaches (39,200 MT) in Japan in MY 2017/18, its yield of 12.4 MT/ha is far below the 18.1 MT/ha yield in Fukushima (Japan's second largest producing region with a production of 28,600 MT in MY 2017/18). Fukushima's high yield is attributed to the relatively flat landscape of its peach growing area, whereas Yamanashi's peach growing area is located along mountain hills. In order to maximize production with limited labor, Yamanashi farmers planted nearly 10 different varieties of peach to expand the harvest time from early June to late August. In addition, some farmers grow peaches in greenhouses and harvest as early as late April. The most popular peach variety, Hakuho, usually has its peak harvest between late July and early August.

Good weather conditions during flowering provided good numbers of fruit sets in MY 2018/19. However, warmer weather with low precipitation during the maturing period in June and July moved the harvest time forward by 7-10 days, resulting smaller fruit. Furthermore, windy weather in June increased pre-harvest fruit drops in Wakayama, Japan's third largest producing region. As a result, FAS/Tokyo forecasts a decrease in the total peach production (by weight) of 2 percent to 122,000 MT in MY 2018/19. However, as Japanese farmers carefully manage the distribution of fruit per tree, the number of peaches will remain about the same as the previous marketing year.

## **Consumption**

Japanese peach farmers grow peaches for fresh consumption only. However, approximately 10 percent of total production does not satisfy Japanese product standards (e.g. size, shape, color and sweetness determined by brix value) and is diverted for processing. In MY 2017/18, Japan's total peach distribution was 125,065 MT, of which an estimated 109,555 MT (87.6 percent) was consumed fresh, 13,800 MT (11 percent) was processed, and 1,710 MT (1.4 percent) was exported.

Japanese consumers consider fruit a non-essential, luxury item since fruit falls outside of the traditional Japanese diet. Therefore, fruits are purchased only when disposable income is abundant. The prolonged economic deflation/stagflation in Japan has reduced household disposable income, which in turn reduces per capita fruit consumption (Chart 3). As a result of lower consumption, farmers then have to raise prices in the next year, leading to further consumption losses, and continuing the negative cycle.



Source: Ministry of Internal Affairs and Communications of Japan

In MY 2018/19, given the marginal production decline anticipated (as described above in the "production" section), Japan's fresh peach consumption is expected to decrease 3.1 percent to 106,140 MT from the previous MY.

#### <u>Trade</u>

The GOJ aims to increase exports of fresh agricultural products to 1 trillion Japanese yen (roughly \$9.1 billion) by 2019, of which 25 billion yen (approximately \$2.3 billion) is projected to be fresh produce. In MY 2017/18, Japanese fresh peach exports increased by 30 percent to 1,710 MT, valued at \$14 million, primarily to Hong Kong and Taiwan. Considering the higher purchase price in foreign markets and the continuous decline in Japanese consumption, Japanese peach growers are encouraged to explore market opportunities outside of Japan. Therefore, FAS/Tokyo anticipates a further increase of exports by 47 percent to 2,500 MT in MY 2018/19.

Japan only permits the import of fresh nectarines from the United States and New Zealand due to phytosanitary concerns. In MY 2017/18, Japan imported a total of 165 MT of nectarines from the United States. Japanese retailers focused on sales of U.S. nectarines in late June and early July when the Japanese fruit market was less competitive and avoided promoting U.S. nectarines in late July and early August when domestic peaches were in peak season. However, since peach season began early in MY 2018/19 due to warmer weather, consumer demand for U.S. nectarines in MY 2018/19 is not as high as it was in MY 2017/18. Accordingly, FAS/Tokyo forecasts Japan's imports of U.S. nectarines will decrease by 15 percent to 140 MT in MY 2018/19.

#### Marketing

Japan's fresh peach season begins in late June and runs until early September. Prime market placement occurs in July and August, in competition with melons, watermelons, and grapes.

Approximately 20 percent of traditional peach farmer production is marketed as premium. Half of the premium are generally marketed directly to consumers, while the other half is sorted at JA facilities for distribution to high-end supermarkets. However, younger farmers find that direct marketing through social media and online markets are more profitable, and tend to avoid traditional distribution channels through JA. Sources described the ratio of their distribution as 50 percent as premium, 30 percent to high-end retailers, and 20 percent to JA or local consumption. These young farmers have found a way to market their peaches directly to consumers through the internet and social media at higher prices than they would receive from JA or export markets, once the reliability of their products establishes trust with their consumers.

Sweetness, rather than size and appearance, is the most important consumer attribute in fresh peaches. Since peach growers conduct a series of thinning the fruit at multiple stages (such as buds, flowers, and immature fruit), the number of fruit sets on trees remain consistent from year to year. If weather is not favorable during the growing season, the total production volume may appear smaller, which insinuates a poor year. However, as observed in MY 2018/19, smaller sizes may result in sweeter fruit, which is the attribute most in demand by Japanese consumers.

# Policy

Japan restricts nectarine imports to six designated varieties and only allows imports from the United States and New Zealand due to phytosanitary concerns: 'Summer Grand', 'Spring Red', 'Firebight', 'Fantasia', 'May Grand', and 'Red Diamond'. The GOJ also requires mandatory fumigation of imports with methyl bromide.