

**Voluntary Report** – Voluntary - Public Distribution

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**Report Number:** JA2023-0097

**Report Name:** Record Heat Stifles Japanese Vegetable Production

**Country:** Japan

**Post:** Osaka ATO

**Report Category:** Agricultural Situation, Climate Change/Global Warming/Food Security, Vegetables

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**Report Highlights:**

Record-breaking heat in the summer of 2023 has damaged summer vegetables and delayed the planting of autumn and winter vegetables in Japan. Although Japan is nearly self-sufficient for fresh vegetable consumption, it may turn to imports to make up potential supply shortfalls. The United States is a notable supplier of onions, celery, and lettuce to Japan.

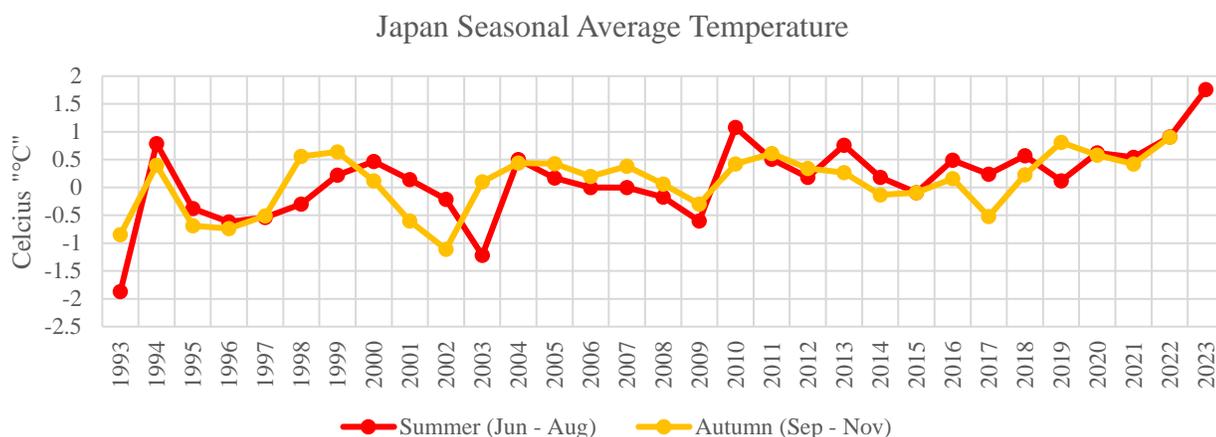
## General Information

Among Japan's agricultural products, fresh vegetables have one of the highest self-sufficiency rates at approximately 95 percent\*. Japan relies on imports for only around 5 percent of its fresh vegetable supply. Imported vegetables are typically varieties that Japan does not produce domestically or those which face a temporary domestic supply shortage. For more details on Japan's vegetable market, please see [GAIN JA8709](#).

\*Note that the Japanese government's official statistics include strawberries, melons, and watermelons in the vegetable aggregate data, however ATO Osaka has removed these items in its calculation of fresh vegetable self-sufficiency.

## Heatwaves Impacting Summer and Autumn Vegetable Yields

According to industry reports, record-breaking heatwaves in the summer of 2023 is impacting agricultural production across Japan. The average temperature between June and August was approximately 1.76 degrees Celsius higher than the average 1991-2020 average, marking the highest temperature increase on record. Summer and autumn vegetables, which are currently in the harvesting stage, have seen low yields due to poor flowering. Even Hokkaido, which typically experiences lower temperatures than the rest of the country, has seen unusually hot weather. In central Hokkaido, tomatoes are not pollinating properly, resulting in no fruit setting and pushing yields down around 10 to 20 percent. Even when they do set fruit, there is a high incidence of softening and sunburn, leading to an increase in discarded and low grade produce. Central and southern Hokkaido have seen broccoli production suffer. JA, a farming cooperative, reported that "due to rotting and inability to produce marketable products, yields have significantly decreased."



Source: Japan Meteorological Agency

Note: Zero represents the average temperature between 1991 and 2020

The impact is also spreading to the Tohoku region which sits just south of Hokkaido on the main island of Honshu. Farmers in Fukushima prefecture have reported damage to cucumbers grown in open fields,

such as bending and swelling. In Yamagata prefecture, producers are facing issues such as withered edamame (soybeans), inability to harvest due to premature growth, and days when the daily collection amount is half that of the previous year. In Toyama prefecture, there are concerns about a reduction in soybean yield. Due to the impact of flowers falling due to high temperatures, there are fewer pods than usual. There are also fields where the leaves turn yellow due to damage from mites that could expand under high-temperature and dry conditions, potentially affecting the enlargement of seeds.

### Delayed Planting for Autumn and Winter Vegetables

Planting of autumn and winter vegetables such as cabbage, lettuce, carrot, *daikon* (Japanese radish), broccoli, cauliflower, celery, spinach, mushrooms, sweet potato, pumpkin, *hakusai* (Napa cabbage), turnip, and Brussels sprouts usually begins in late August to early September. However, this year the combination of high temperatures and low rainfall has raised concerns of potential withering. Farmers have also expressed concern about future increases in pests and diseases.

With Japan possibly facing delayed or short supply of domestic vegetables, importers may seek additional spot-based procurements for autumn and winter vegetables such as onions, celery, and broccoli. The United States is a key supplier of these products to Japan, although volumes have been fairly limited in years when Japan has normal yields.

**Japan’s Imports U.S. Autumn-Winter Fresh Vegetables  
(Annual Average 2018-2022)**

HS Code	Item Description	Volume (MT)
070310	Onions and shallots	6,515
070940	Celery	5,637
070511	Head lettuce (cabbage lettuce)	2,770
070519	Lettuce, except head lettuce	274
070320	Garlic	241
070410	Cauliflowers and broccoli	188
070610	Carrots and turnips	134
070993	Pumpkins, squash and gourds	81
070959	Mushroom	81
070920	Asparagus	69
070420	Brussels sprouts	19

Source: Japan Customs

For details on Japan’s tariff treatment of U.S. fresh vegetables, see [GAIN JA2023-0089](#).

### Attachments:

No Attachments.