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# **Vegetable Policies in Japan**



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## Abstract

Japan's policies in the vegetable sector support producers' incomes while keeping market prices stable. If market prices for vegetables fall below a historical average price, farmers receive compensation for most of the price decline. In return, farmers are expected not to exceed target planting areas. Government subsidies are available for farmers to divert land out of rice production and into vegetables, and farmers raising vegetables in greenhouses benefit from subsidized insurance premiums. Border measures and quality differences make Japan's vegetable prices high by international standards. At the border, the most important factor has been Japan's phytosanitary rules, which block imports of some important fresh vegetables and require fumigation in some other cases. Tariffs on vegetables are under 13 percent, except on imports of dried beans outside a tariff-rate quota. Growing imports led to a temporary safeguard action against two vegetables in 2001.

**Keywords:** Japan, vegetables, policies, domestic support, trade, trade liberalization, phytosanitary.

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## Introduction

Japan is one of the leading agricultural importing nations in the world. This article is one in a series examining Japan's policies that protect and regulate its agricultural markets. These policies are of special interest because they are subject to review in the current round of global trade negotiations conducted by the World Trade Organization (WTO).

Japan is a large market for fresh and processed vegetables-the wholesale value of the market in 2000 was about 3 trillion yen (\$23 billion). The high value of Japan's vegetable consumption reflects both high consumption per person and high prices for vegetables. Consumption in 1998 was about 99 kg per person (in comparison, U.S. consumption in 1997 was almost 130 kg/person). Japan's vegetable production includes almost all the vegetables commonly used in North America and Europe, as well as Asian vegetables. Vegetable production has been one of the dynamic sectors of Japan's agriculture, and is one of the few sectors that supports widespread full-time farming. As a source of aggregate Japanese farm income, vegetable production is as important as rice or livestock production.

While Japan imports a large share of its supplies of frozen, canned, and other processed vegetables, domestic production still satisfies most of the country's fresh vegetable demand. However, imports of fresh vegetables have increased, especially in the 1990s, as Japan's retailers have turned to Southern-Hemisphere vegetable imports during the winter, and as imports have demonstrated that they offer good quality for significantly lower prices. Japan's phytosanitary rules, although they still make fresh imports of some vegetables impossible, have been met by foreign suppliers in some cases, and loosened in other cases, allowing new and larger import flows. The increased competition has benefited consumers but alarmed Japanese producers, and the increased level of imported vegetables has become a well-known political issue in Japan. Contract vegetable growing has replaced use of wholesale markets for an increasing share of produce, and Japan's Government has recently announced new support measures for domestic contract growers, as well as expanded support for vegetables in wholesale markets.

Japan's policies concerning the vegetable sector can be divided into two categories: policies oriented toward domestic producers and consumers, and policies applied at the border. An overview of the policies is given in the box Japan's Vegetable Policies: A Snapshot.

Policy	Goal	Commodity coverage	
Domestic policies			
Production, processing, and marketing subsidies	Increase scale, efficiency, and quality of vegetable supply	All vegetables	
Compensation to producers for market price declines	Compensation for part of price decline from historical average market price	14 "designated" vegetables; 28 "specified" vegetables	
Rice diversion payments	Encourage substituting vegetables for rice	All vegetables	
Disaster insurance subsidies	Reduce risk of vegetable farming	Potatoes; kidney and Azuki red beans; vegetables grown in covered structures	
Border measures			
Tariffs (ranging from 0 to 12.8%)	Raise market prices in Japan	All vegetables	
Gate price system	Raise import prices to a threshold level	Onions	
Tariff-rate quota	Raise market prices in Japan	Dried beans	
Temporary safeguard measures	Temporarily raise market prices in Japan	Welsh onions and shiitake mushrooms in 2001	
Phytosanitary rules	Protect against introduction of plant diseases; prevent importation of pests	All fresh vegetables	

## **Domestic Policies**

Japan's policies generally try to bolster vegetable farm income through subsidies to producers that are provided by taxpaid funds of the national and local governments, with additional funds collected from farmers and their organizations. The WTO categorizes policies in the amber, blue, and green boxes according to the degree to which they are linked to production decisions. See *How Japan Notifies Its Domestic Policies on Vegetables to the WTO* for information on the WTO status of the policies discussed below.

#### Production, processing, and marketing subsidies.

Japan's national and prefectural (state) governments are highly interested in maintaining vegetable production. At the national level, subsidies are given to increase efficiency in production and marketing. Subsidies are available for construction of facilities and for the acquisition of machinery and technologies. Typically, sorting, packing, and distribution of vegetables are handled by local farm cooperatives, which receive some of the subsidies. Goals of the subsidies include:

- development of certain regions as Vegetable Production Areas
- development of large-scale production areas consisting of two or more villages
- development of new production areas especially in upland fields
- promotion of greenhouse vegetable production
- supply of high-quality seeds and seedlings.<sup>2</sup>

<sup>2</sup> Nagata, p. 27.

Policy	Box	Justification	
Production, processing, and marketing subsidies	Green	Infrastructural services for market facilities: Provision or construction of market facilities.	
		Agricultural loans for structural adjust- ment: Interest concessions.	
Compensation to producers for market price declines	Amber <sup>1</sup>	Payments related to price.	
Rice diversion payments	Green	Environmental payments: For maintaining paddy fields in environmentally good condition through growing any plants other than rice.	
Disaster insurance subsidies	Green and amber <sup>2</sup>	<i>Green:</i> Payments for relief from natural disasters: Subsidies on premiums of agricultural insurance for production loss of more than 30% of average levels. <i>Amber:</i> Subsidies on premiums of agricultural insurance for production loss of less than 30% of average levels.	

<sup>1</sup> Payments related to price were reported as 8.6 billion yen (\$76 million), which was .4 percent of the total value of vegetable output (2,211 billion yen), and thus considered *de minimis* and not counted as part of Japan's aggregate AMS because the payments were less than 5 percent of the value of vegetable production.

<sup>2</sup> Premium payments for insurance coverage for losses of less than 30 percent for all commodities (not just vegetables) were 22.2 billion yen (\$195 million) in 1999, which was .2 percent of the value of Japan's total agricultural output, and thus considered *de minimis* and not counted as part of Japan's aggregate AMS because the payments were less than 5 percent of the value of production.

Source: Notification concerning domestic support commitments reported by the Government of Japan to the WTO for fiscal year 1999. G/AG/N/JPN/72, Feb. 19, 2002.

#### 3

In particular, spending under two programs assists vegetable producers.

- The Production and Shipment Modernization Project for Designated Vegetable Production Areas provides funds mainly for the acquisition of computers, packing machines, and seedling facilities.
- The Production/Distribution Advancement Project subsidizes the construction of buildings such as packing houses and warehouses.

For both projects, the Ministry of Agriculture, Forestry and Fisheries (MAFF) provides approximately 50 percent of the project cost. Local governments (prefecture, city, or county), the local cooperative federations, and growers share the rest of the project cost. Information on total spending for these projects is not available.

**Protecting producers against adverse market price movements.** The stabilization of prices is a major goal for Japan's vegetable sector. Farmers and the government fear price drops that could depress farmers' main source of income. As in the United States, retailers dislike sudden price changes.

Several mechanisms operate to prevent price fluctuations, or to correct the effects of volatile prices if they cannot be avoided. They apply to transactions in wholesale markets, in which local cooperatives represent most farmers. Some are based on the Vegetable Production and Marketing Stabilization Act, originally enacted in 1966 and amended at various times, as recently as 2002. The Act gives MAFF the authority to define vegetable production and consumption areas in

Table 1—Vegetable price stabilization

a way that the expected volume of production of designated vegetables from production areas will satisfy the expected demand in consumption areas. For 14 "designated" vegetables (table 1), supply and demand are to be adjusted according to production and consumption zones. In 2002, this has been amended so that production of a vegetable in the defined production areas is supported by the program, no matter which consumption areas are served. The Act also gives the government the authority to assist markets for another 28 "specified" vegetables (see table 1).

MAFF each year surveys supply and demand conditions for designated vegetables and makes a target for the planted area of each. Given historical yields, the target area is expected to produce a volume that will satisfy domestic consumption without significant changes in prices. The target area is then divided up regionally by a national producer group and passed on to cooperative federations which make prefectural targets. Then each local cooperative is assigned a target area, and works with its farmers to achieve, but not to exceed, the targeted area. Farmers in these associations are supported by the Vegetable Supply Stabilization Fund (VSSF) when prices fall sharply. For the 28 specified vegetables, the Specified Vegetable Price Stabilization Project provides price compensation for producers, administered by nonprofit corporations established in the prefectures for the purpose of stabilizing vegetable prices.<sup>3</sup> The procedures applied to specified vegetables usually follow those for designated vegetables, outlined below.

<sup>3</sup> Nagata, p. 27 and OECD, p. 106.

Designated vegetables	Specified vegetables	
Cabbage*	Asparagus	Green soybeans
Carrot	Bok choy	Japanese butterbur
Chinese cabbage*	Broad bea	Japanese hornwort (mitsuba in Japanese)
Cucumber	Broccoli	Komatsuna leaf
Eggplant*	Burdock	Lotus roots
Japanese radish*	Cauliflower	Pumpkin
Lettuce	Celery	Scallion (rakkyo in Japanese)
Onion*	Chili pepper	Shiitake mushroom
Potato	Chinese chive	Snowpeas
Spinach	Garland chrysanthemum	Sweet corn
Sweet pepper	Garlic	Sweet potato
Taro	Ginger	Turnip
Tomato	Green bean	Wakegi green onion
Welsh onion	Green peas	Yam

\*These vegetables are given special status as important vegetables.

Note: Watermelons, other field-grown melons, and strawberries are also considered specified vegetables.

Source: Nagata, pp. 24, 27.

The mechanisms for compensation for price declines in vegetable markets are worked out administratively, and are not spelled out in the Vegetable Production and Marketing Stabilization Act. Currently, price compensation for designated vegetables is given by the VSSF when actual market prices fall below a guaranteed standard price<sup>4</sup> for a season (fig. 1). The guaranteed standard price is 90 percent of the average, nominal, wholesale price for the last 9 years, and is set for each of the vegetables, for each season, and for each of 34 major consumption areas.<sup>5</sup> Until 2002, it covered transactions made through wholesale markets only. If producer groups have exceeded area targets, support can be withheld.

A compensation value is calculated as 90 percent of the difference between the guaranteed standard price and the season-average market price, multiplied by each producer's shipped volume. For the most important vegetables (onions, cabbage, Chinese cabbage, and Japanese radish) growers get the full compensation value. For the other 10 designated vegetables, growers receive 90 percent of the compensation value<sup>6</sup> (i.e., 81 percent of the difference between the guaranteed price and the market price, multiplied times shipped volume). For all vegetables, however, the compensation has a maximum value per unit of output—35 percent of the historical average market price-and no extra subsidies are given if market prices drop so much that the subsidy would exceed the 35 percent level<sup>7</sup> (fig. 1).

For onions, potatoes, and cabbages, the VSSF makes advance purchases for stock holding, and releases stocks in the case of market price spikes. MAFF can also subsidize cooperatives to ship low-graded vegetables which are not usually shipped in order to dampen price increases.

For onions, cabbage, Chinese cabbage, and Japanese radish, funding for the VSSF price compensation operations is contributed from the national government (65 percent), prefectural governments (17.5 percent), and registered shipping corporations (usually producerowned—17.5 percent). For the other 10 designated vegetables, and for the specified vegetables, 60 percent

#### Figure 1 Vegetable price stabilization

Percent



Source: Nagata, 1997.

is contributed by the national government and 20 percent each from the prefectures and the shipping corporations.<sup>8</sup> Japan notified spending of 8.6 billion yen (\$76 million) under this program in its 1999 accounting of agricultural subsidies to the WTO.<sup>9</sup>

Some large cooperative units also engage in their own supply management, based on national decisions. Hokuren, the Hokkaido cooperative federation, tries to reach a targeted onion production level, set with regard to the MAFF area target and prospective plantings in other major Japanese production areas. In addition to volume, timing of the release of onion stocks is a critical factor in its planning. In order to maintain supply to Japan's markets, Hokuren has imported onions from outside Japan when its own supplies were short of its targets.

**Vegetable Structural Reform Measure of 2002.** The scope of the Vegetable Production and Marketing Stabilization Act's policies (outlined above) has been significantly broadened by the Vegetable Structural Reform Measure for domestic vegetables that MAFF announced in February 2002. The Reform Measure has two main features: an extension of subsidies to growers who sell through contracts with buyers (rather than delivering to wholesale markets); and a relaxation of previous rules that defined marketing areas that produc-

<sup>&</sup>lt;sup>4</sup> Nagata, p. 25.

<sup>&</sup>lt;sup>5</sup> OECD, p. 106.

<sup>&</sup>lt;sup>6</sup> Nagata, p. 26.

<sup>&</sup>lt;sup>7</sup> Nagata, p. 25.

<sup>&</sup>lt;sup>8</sup> Nagata, p. 26.

<sup>&</sup>lt;sup>9</sup> Notification by Japan to the WTO, G/AG/N/JPN/72, Feb. 19, 2002.

ers could serve. This Structural Reform Measure is operational for 3 years starting in Japan's fiscal year 2002 (April 1, 2002-March 31, 2003), with a budget of 31.1 trillion yen (\$239 million), 3.5 times the 2001 budget.

Part of the impetus for the Reform Measure may have been increases in vegetable imports (especially from China and Korea)<sup>10</sup> marketed independently of Japan's price stabilization scheme. The increased competition that they represent tends to keep prices lower than they otherwise would be.

The Vegetable Production and Marketing Stabilization Act was to be revised in 2002 in order to include the new features of the reform measure. Previous policies (discussed above) continue to be applied. The Reform Measure expands the previous policies, rather than replace them. This Structural Reform Measure is designed to help Japanese vegetable farmers achieve a stable level of income through contract-based production with endusers (restaurants, food processors, etc.). The contract-based system applies to the same designated and specified vegetables that receive price stabilization assistance in the case of wholesale market transactions (table 1).

Japanese foodservice and food processing sectors are heavy users of vegetables, purchasing approximately 55 percent of the nation's total vegetable consumption. Foodservice operators (e.g., restaurant chains), processors, and retailers demand stable vegetable supply, quality, and price. Partly in response to price volatility in the Japanese vegetable market, food manufacturers and foodservice operators have increased their purchases of imported vegetables which are available at relatively lower prices. The 2002 Reform Measure aims to encourage the Japanese foodservice and food processing sectors to use more domestic vegetables.

*The contract-based production/marketing stable vegetable supply program*, part of the 2002 Reform Measure, helps farmers who have signed pre-harvest contracts to supply produce to a given company. Support for farmers who enter into supply contracts is meant to assist in providing the Japanese foodservice and food processing sectors with a stable supply of domestic vegetables. It reduces the risk that contracting farmers face from an unfavorable crop situation. The program works as follows:

- In a poor-crop situation, when farmers purchase vegetables from other farms in order to fulfill their contracted volume to supply to the endusers, the program will subsidize 90 percent of the price difference between the contracted price and the purchase price that the farmers paid.
- If the contract price directly reflects the market price, when the market price goes below the guaranteed base price, the program will subsidize 90 percent of the difference between the two prices. The guaranteed base price is set at 90 percent of the national average wholesale price of the last 9 years.
- In a bumper-crop situation, when farmers destroy their products in order to stabilize the market price, the program will subsidize the lost produce at 40 percent of the current market price. As in the older program, which covers vegetables sold in wholesale markets, a major goal of the program is to reward farmers who contribute to stable prices by withholding supply when there is an overall surplus.

The VSSF supports the program for "designated" vegetables, with contributions from the national government (50 percent), prefectural governments (25 percent), and growers (25 percent). The funding source for "specified" vegetables is a set of prefectural government corporations, whose fund is contributed equally from the national government, prefectural governments, and growers.

Also as part of the Reform Measure, *an expansion of the current grower subsidy program* (operated through the VSSF and the Specified Vegetable Price Stabilization Project—see above) will significantly increase shipment coverage for designated and specified vegetables, by loosening rules on market destinations and by encompassing contract farming as well as wholesale marketing. The new program covers 51 percent of total shipments of designated and specified vegetables, while the old program only covered 19 percent of total shipments. Under the new program (effective April 1, 2002):

- Designated and specified vegetables can be shipped to any consumption area—the old program was limited to shipments to a limited number of consumption areas allocated to each production area.
- Vegetables can be distributed directly to contracted end users, as well as through the wholesale market.
- Vegetables can be shipped directly from a large-scale farm corporation, as well as through an agricultural

<sup>&</sup>lt;sup>10</sup> See Huang for a review of China's exports to Japan.

producers' cooperative such as those in the Japan Agriculture federation.

**Rice diversion subsidies for vegetables.** Japan's Government has undertaken several programs to pay farmers to remove land from rice cultivation and substitute other uses. Farmer participation is voluntary. The programs have been heavily structured, with goals or limits on the number of hectares accepted for subsidies for a given kind of production, such as vegetables. These sectoral goals have been set in order to limit the oversupply of produce from the diversified areas. The first diversion program saw about 56,000 hectares move from rice to vegetable production (not including potatoes) in the early 1970s. By the 1990s about 100,000 hectares had been shifted from rice to vegetables using the subsidies from various diversion schemes.<sup>11</sup> This represents about 20 percent of total vegetable area.

An Organization of Economic Cooperation and Development (OECD) analysis of the effect of the diversion programs showed that the vegetable-growing area that existed before rice diversion decreased by about 25 percent in the 1968-89 period, as diversion was implemented. Vegetable production shifted to the subsidized, diverted areas and total vegetable area decreased by about 8 percent.<sup>12</sup> Despite the net loss of vegetable area, however, the total amount produced has not decreased as markedly. Yields have risen, in particular because covered production of vegetables (in greenhouses, vinyl-covered houses, etc.) in former rice fields, as opposed to open-field production, rose strongly in the years 1970-1990. Yields are higher in climate-controlled conditions, and usually more than one crop can be harvested in a year using greenhouses.

In recent years, diversion payments for other commodities, notably soybeans, wheat, and barley, have been higher than for vegetables.<sup>13</sup> In 2001, the maximum payment for diverting rice paddies to vegetable production was 130,000 yen/ha (\$435/acre),<sup>14</sup> well below the maximum of 830,000 yen/ha for soybeans, wheat, and barley. The 2001 payment level for switching to vegetables is far less than the 500,000 yen/ha provided in 1978-83 (fig. 2).

Receiving a diversion payment requires participating in a mutual fund to which rice growers and the government contribute. If vegetable farmers participated in the fund, they would receive 100,000 yen/ha for planting vegetables in rice paddies. A further 30,000 yen/ha government payment depended on farmers in their area collectively meeting the annual target for diverting rice area.

**Insurance.** An insurance subsidy is available for certain field crops—potatoes, Azuki red beans, and kidney beans—and for all vegetables grown in covered structures.<sup>15</sup> Covered production is eligible for government-supported insurance against damage to the facilities and associated equipment, as well as damage to the vegetables themselves. Since most covered production is in houses built with vinyl stretched over metal pipes,<sup>16</sup> damage from typhoons and heavy snows is a real hazard. The insurance programs for vegetables began as a trial program in 1973 and were made permanent in 1979.

<sup>16</sup> MAFF, 1998-99, p. 537.

#### Figure 2 Diversion payments for vegetables

1,000 yen/hectare (nominal)



Source: FAS/Tokyo.

<sup>&</sup>lt;sup>11</sup> OECD, p. 120.

<sup>&</sup>lt;sup>12</sup> OECD, pp. 108-120.

<sup>&</sup>lt;sup>13</sup> Payments were also higher (in 2001) for fodder, green manures, straw, pulses, buckwheat, feed rice, rapeseed, rushes, tobacco, orchards, and paddies used for scenic purposes.

<sup>&</sup>lt;sup>14</sup> Pulses are an exception. For these crops, there is a basic subsidy of 200,000 yen/ha; another 200,000 yen/ha from the mutual fund, and a 30,000-yen/ha supplement if the diversion target is met in the area surrounding the farm. The maximum total compensation is 430,000 yen/ha (\$1,439/acre).

<sup>&</sup>lt;sup>15</sup> NAIA, pp. 22, 26.

Over the life of the program, the balance sheet for the greenhouse program has shown a surplus.<sup>17</sup> Thus, the main support by the government has come through paying the administrative expenses of the program and the 50 percent share of farmers' premiums, rather than through treasury funds to compensate for extreme disasters.

For greenhouses growing fruits, vegetables, and flowers, the government's 50-percent share of farmers' pre-

<sup>17</sup> NAIA, p. 55.

miums amounted to 3.6 billion yen (\$31 million) in 1999,<sup>18</sup> covering 15,000 hectares (37,000 acres) of covered production. The government paid 1.3 billion yen (\$10 million) in premiums for potato farmers, 1 billion yen (\$8 million) in premiums for Azuki bean farmers, and .3 billion yen (\$2 million) in premiums for kidney bean farmers.<sup>19</sup> For these crops, the government share was 55 percent of the premium.<sup>20</sup>

<sup>18</sup> NAIA, p. 55.
 <sup>19</sup> MAFF, 1998-99, p. 537.
 <sup>20</sup> NAIA, p. 24.

## **Border Measures**

Japan's measures affecting vegetable imports include tariffs, a variable duty on onions, a tariff-rate quota (TRQ) on pulses, and phytosanitary requirements on many vegetables. Japan has applied safeguard TRQs to two vegetables using the Uruguay Round (UR) Agreement on Safeguards. In 2000, about 18 percent of Japan's vegetable supply was imported.<sup>21</sup>

**Tariffs.** Tariffs on most vegetables are 3 percent of the import value for fresh imports, 6 percent for frozen imports, and 9 percent for provisionally preserved and dried imports. Higher tariffs apply to potatoes and sweet potatoes, sweet corn, taro, some mushrooms, frozen and preserved burdock, and frozen peas and beans. The highest tariff is 12.8 percent (table 2). Aside from dried beans and peas, there are no TRQs.

These tariffs generally apply to both developed and developing countries. Dried vegetables are an exception: tariffs are 0 for the least-developed countries, except for sweet corn, taro, shiitake mushrooms, and sweet potatoes. Two fresh vegetables, matsutake mushrooms and burdock, have no tariff for all developing countries.<sup>22</sup>

**Variable duties on onions.** Fresh onions are subject to a gate price system, under which importers of onions arriving with an import unit value below the gate price must pay the difference between the gate price (73.7 yen/kg) and the import unit value. If the import unit value is low enough (below 67 yen/kg), however, a simple tariff (8.5 percent) is applied. If the import unit value is above the gate price, no tariff is applied. The system is designed to protect Japan's onions from competition from similarly priced imported onions, but not from premium onion imports.<sup>23</sup> The gate price was fixed at 73.7 yen/kg in the UR.

The dried bean tariff-rate quota. Japan has administered a quota on imports of dried beans and peas (except chickpeas and lentils) for many years. Within the TRQ, a tariff of 10 percent applies. Outside the quota (which is 120,000 tons per year) the tariff is 354 yen/kg (over \$3,300 per ton in 2000). The TRQ pro-

tects domestic production, primarily of Azuki and kidney beans. If over-quota imports were to grow rapidly, Japan reserves the right to raise over-quota tariffs on pulses to a rate of 417 yen/kg, using the special safeguard provision of the UR Agreement on Agriculture. The TRQ was over 95 percent filled in 2000, the last year for which information is available, with imports at 115,054 tons.<sup>24</sup> This is an indication that imports might grow further, if the over-quota tariff were reduced or the TRQ abolished entirely.

**Temporary safeguard on imports of two vegetables.** In 2001, Japan invoked the UR Agreement on Safeguards because of growing imports of Welsh onions (which resemble leeks—in Japanese, negi), and fresh shiitake mushrooms. Without the safeguards, tariffs on these vegetables are quite low—4.3 percent for shiitake mushrooms and 3 percent for Welsh onions. The safeguard measures were applied April 23-November 8, 2001, and involved a TRQ for each of the two vegetables that kept the quota volume at the average level of trade for the past 3 years and applied a tariff of 266 percent for shiitake mushrooms and 256 percent for Welsh onions imported outside the quota. Imports within the quota limits continued to be taxed at the pre-safeguard tariff levels.<sup>25</sup>

Growing shipments from China triggered the action, and China reacted to the safeguard by increasing tariffs on certain manufactured products from Japan. At the expiration of the quota on November 8, Japan considered extending a quota system for a period of several years, as outlined in the Agreement on Safeguards. However, after consultations with China, the quota was not extended (decision announced on December 21, 2001).

**Phytosanitary rules.** Phytosanitary barriers strongly affect imports of fresh vegetables. Imports of some fresh vegetables are banned from most countries, including the United States, because of plant disease restrictions. Fresh peppers, cucumbers, eggplants, potatoes, and other important vegetables are not imported in large quantities because of these restrictions. Other vegetables are affected by fumigation

<sup>&</sup>lt;sup>21</sup> Japan International Agricultural Council, p. 16.

<sup>&</sup>lt;sup>22</sup> Japan Tariff Association.

<sup>&</sup>lt;sup>23</sup> Japan Tariff Association.

<sup>&</sup>lt;sup>24</sup> Notification by Japan to the WTO, G/AG/N/JPN/66, Aug. 21, 2001.

<sup>&</sup>lt;sup>25</sup> FAS GAIN Report JA1035, April 11, 2001.

requirements, designed to kill insects and other pests at the arrival port in Japan. Fumigation can seriously damage the quality of imported vegetables, especially if they are soft or light-colored. Lettuce and cauliflower have been particularly affected. Japan's officials fumigate whenever they see insects in a shipment, even if the insect is already endemic in Japan. In general, phytosanitary rules do not inhibit imports of dried, frozen, and other processed vegetables. Over half of Japan's vegetable imports are dried, frozen, or otherwise processed, both in value and in volume.

#### Table 2—Tariffs on vegetables, 2002

	Fresh	Frozen	Provisionally preserved	Dried	Preferential tariffs <sup>1</sup>
Artichokes	3	6	9	9	Y
Asparagus	3	6	9	9	Y
Avocados	3	6	9	9	Y
Burdock	<sup>2</sup> 2.5	12	12	9	Y
Cabbage and broccoli	3	6	9	9	Y
Carrots and turnips	3	6	9	9	Y
Celery	3	6	9	9	Y
Cucumbers	3	6	9	9	Y
Garlic, leeks, shallots	3	6	9	9	Y
Lettuce and spinach	3	6	9	9	Y
Lotus roots	3	6	9	9	Y
Mushrooms					
Matsutake	<sup>2</sup> 3	6	9	9	Y
Shiitake	4.3	6	9	12.8	
Other	4.3	6	9	9	Y
Onions	<sup>3</sup> 8.5	6	9	9	
Peas and beans	3	8.5	9	<sup>4</sup> 10	
Peppers and eggplants	3	6	<sup>5</sup> 9	9	Y
Potatoes	4.3	8.5	9	<sup>6</sup> 12.8	Y
Pumpkins	3	6	9	9	Y
Sweet corn	6	10.6	9	9 yen/kg	
Sweet potatoes	12.8	12	12.8	12.8	
Taros	9	10	9	9	
Tomatoes	3	6	9	9	Y

Notes:

This is not an authoritative source for Japan's tariffs. For that, refer to Custom Tariff Schedules of Japan.

<sup>1</sup> Y means that a preferential tariff of 0 percent applies to imports of dried vegetables from least-developed countries.

<sup>2</sup> Tariff is 0 for developing countries.

<sup>3</sup> Tariff is 0 when import unit value is over 73.7 yen/kg.

<sup>4</sup> For dried beans and peas, Japan reserves the right to use the special safeguard mechanism of the UR Agreement on Agriculture and maintains a tariff-rate quota. The within-quota tariff is 10 percent and the over-quota tariff is 354 yen/kg.

<sup>5</sup> Tariff is 6 percent for eggplants weighing less than 20 g per piece.

<sup>6</sup> Tariff is 10 percent for developing countries (0 for least-developed countries).

Source: Japan Tariff Association, Custom Tariff Schedules of Japan, 2002.

## **Policy Implications**

**Prices.** Japan's vegetable prices are well above those in neighboring countries or the United States. Since the quality of vegetables marketed in Japan is very high, part of the reason for the high relative prices may be a quality premium. However, border measures imposed by Japan's Government are another major factor—otherwise, highquality vegetables could be imported relatively soon after picking from nearby countries where prices are much lower. Phytosanitary rules have a major impact on vegetable trade. Japan's tariffs are not particularly high, but Japan has used voluntary export restraint agreements with exporting countries in the past, and recently has employed safeguard measures to increase tariff protection above temporary quota limits.

At the farmgate, a comparison of Japanese producer prices and U.S. fob shipping prices for five comparable vegetables shows that Japan's farmers receive prices that are 2 to 4 times higher than prices U.S. farmers get (fig. 3). The highest price ratio in 2000 was for cucumbers, a commodity for which a phytosanitary rule bars virtually all imports. The lowest price ratios were for carrots and onions, which are usually not subject to phytosanitary restrictions.

#### Figure 3



#### Producer vegetable price ratio, Japan vs. U.S.

Sources: MAFF Monthly Statistics for Japan and ERS, USDA for U.S.

At the retail level, price ratios in 1998-2000 for three comparable vegetables ranged from 1.7 to 3.2 times higher in Japan than in the United States (fig. 4). These ratios are higher than those for bananas, which are about 1.65-i.e., prices in Japan are about 65 percent above U.S. prices, at the retail level. Bananas are a perishable commodity marketed at retail in the same stores as fresh vegetables. Because the same kind of bananas are imported into both Japan and the United States, with no important phytosanitary barriers, they offer a way to compare prices of a product that is likely to be the same quality and just as fresh in both markets. While Japan imposes a 10-percent tariff on banana imports (versus 0 in the United States), most of the 65-percent price difference reflects other factors, which may be assumed to be characteristics of Japanese retail marketing, rather than characteristics of the bananas (like quality or freshness). Thus, a price margin of about 55 percent may separate Japan's produce prices from U.S. prices at retail,<sup>26</sup> and be unrelated to produce import barriers or to produce quality. If

### Figure 4 Retail vegetable price ratio, Japan vs. U.S.

Japan price/U.S. price



Sources: MAFF Monthly Statistics for Japan and ERS, USDA for U.S.

 $<sup>^{26}</sup>$  The 10-percent tariff raises the cost of bananas to Japan's retailers, but does not affect other costs of bringing bananas to the retail shelf. Thus, a 10-percent tariff on bananas would raise the retail price by less than 10 percent. Nevertheless, for simplicity, the full 10 percent is subtracted from the 65-percent Japan-U.S. difference in the example above.

that is the case, then Japan's high prices for potatoes, tomatoes, and lettuce (200 percent, 85 percent, and 185 percent higher than in the United States, respectively) reflect extra impacts of border protection, or premiums for quality and freshness, or both, to the extent they exceed the 55-percent margin for bananas.

Comparisons with vegetable prices in China also show that Japan's prices are relatively high. In March 2001, as Japan considered imposing extra barriers on the trade in Welsh onions, it was reported that domestic wholesale prices were 206 yen/kg, in contrast with a price for imports from China of 91 yen/kg.<sup>27</sup>

Gains and losses. Japan's farmers gain from policies that provide more than half the cost of packing and marketing facilities, subsidize insurance against hazards, compensate for price drops, and restrict foreign competition. But this system can stifle entrepreneurial producers wishing to expand their operations. The ability of individual farmers to compete freely is undermined by the need to show discipline in production for each vegetable covered by the supply stabilization schemes. If the total level of production is fixed at a target level that will maintain market prices at a desired level, then all producers are expected to restrain their production in proportion to the national or regional target. This makes it more difficult for an individual farmer to expand the size of a vegetable operation in order to achieve economies of size. However, the system raises the total value of production for producers as a group by raising prices.

Consumers pay higher prices for vegetables—for instance, lettuce prices that are 185 percent above those in the United States—to the extent that policies reduce competition in the marketplace by constraining imports. Free markets can adjust prices to lower levels, as competition among producers rewards those with lower costs and pushes those with higher costs out of the market. This price competition is also inhibited when the government intervenes to stabilize prices by limiting supplies when prices are falling. Consumers pay the price—their consumption of vegetables is reduced and they spend more for vegetables that they do buy.

If Japan were to end its policies in support of vegetable farming, some farmers would produce less or exit vegetable farming. Other farmers would expand operations to take their place, and imports would be likely to increase as well. If phytosanitary standards were changed, or if foreign producers could meet Japan's standards, imports of some major fresh vegetables would begin. Greater competition from imports would drive prices for those vegetables lower, benefiting consumers. An end to the TRQ on dried beans would also benefit consumers, because the over-quota tariff is so high that it effectively excludes imports, and thus reduces potential competition. Current negotiations about a new multilateral agreement on agricultural trade in the WTO are likely to focus on tariffs and TRQs and on domestic support, and may lead to significant changes in Japan's vegetable policy regime.

<sup>&</sup>lt;sup>27</sup> FAS GAIN Report JA1030, March 30, 2001.

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