

11. Mushrooms

1. Definition of Category

Fresh, chilled or dried mushrooms. It does not include mushrooms that have been boiled or processed in some other manner.

HS Numbers	Commodity
0709.51-010	<i>Matsutake</i> (fresh / chilled)
.51-020	<i>Shiitake</i> (fresh / chilled)
.51-090	Other mushrooms (fresh / chilled)
.52-000	Truffles (fresh / chilled)
0712.30-010	<i>Shiitake</i> (dried)
.30-091	Jew's ear (dried)
.30-099	Other mushrooms and truffles (dried)

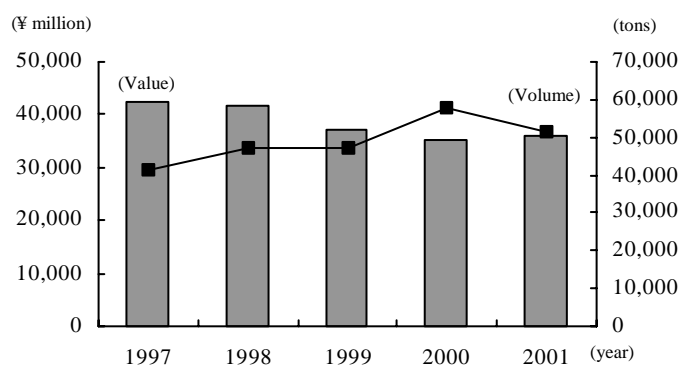
2. Import Trends

(1) Recent Trends in Mushroom Imports

Domestic demand for mushrooms has been steadily rising due to the health and nature concerns. Especially, imports of fresh *shiitake* mushrooms have soared, as it has become increasingly difficult to supply them domestically at affordable prices. *Shiitake* mushroom imports grew from 26,028 tons in 1997 to 42,057 tons in 2000. Nearly all of these imports came from China.

Under provisions of the WTO Safeguards Agreement and the Customs Tariff Law, the Japanese government initiated provisional safeguard measures regarding three agricultural products: onions, fresh *shiitake* mushrooms, and straw mat coverings, asserting that soaring cheap imports were causing serious harm to the domestic industry. The safeguard measures lasted for 200 days beginning April 23, 2001. This represented the first time that general provisional safeguard measures were initiated. In each of these instances, more than 90% of imports come from China. After this step was taken, imports dropped to about half the former level and wholesale prices stabilized. As a result, the government decided not to implement the safeguard measures.

Fig. 1 Japan's mushroom imports



	1997		1998		1999		2000		2001	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Fresh, chilled	29,794	27,799	35,489	28,159	35,218	25,345	46,110	25,343	39,472	25,597
<i>Matsutake</i>	3,059	17,694	3,248	16,671	2,674	15,490	3,452	14,567	2,395	15,835
<i>Shiitake</i>	26,028	9,292	31,396	10,524	31,628	8,991	42,057	10,068	36,301	8,925
Other mushrooms	698	549	835	684	904	610	577	407	759	473
Truffle	10	263	10	281	12	254	24	301	16	364
Dried	11,765	14,439	11,601	13,419	11,831	11,740	11,688	10,020	11,783	10,389
<i>Shiitake</i>	9,400	11,460	9,048	9,693	9,146	9,227	9,144	7,952	9,253	8,204
Jew's ear	2,218	1,954	2,308	2,094	2,528	2,019	2,405	1,725	2,390	1,804
Other	147	1,026	245	1,631	157	494	139	342	139	381
TOTAL	41,559	42,238	47,090	41,578	47,050	37,086	57,798	35,363	51,255	35,986

Units: tons, ¥ million

Source: Japan Exports and Imports

Fresh *shiitake* mushroom imports became to 36,301 tons (down 13.7% from the year before) in 2001. Production of *matsutake* in Japan has been insufficient (though artificial cultivation of *matsutake* is being researched), therefore imports from North Korea (the People's Democratic Republic of Korea) and China have been growing to fill the resultant gap. But, in 2001, imports of *matsutake* mushrooms from North Korea tumbled from 1,309 tons in 2000 to just 211 tons. Overall import volume of *matsutake* mushroom was also down by 30.6%, to 2,395 tons, while dried mushroom import volume remained around the same as the year before, at 11,783 tons.

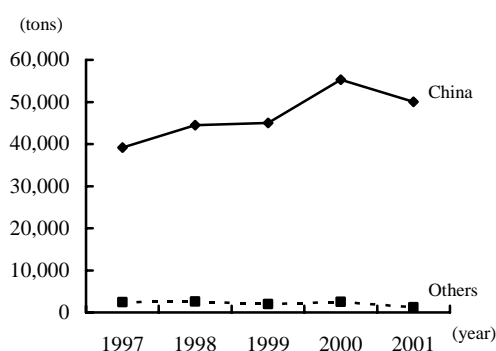
(2) Imports by Place of Origin

Looking at mushrooms as a whole, imports from China are the greatest in volume. China accounts for 97.6% of the total volume of imports, with 50,015 tons in 2001 (78.9% in value). The most important category for China is fresh *shiitake* (36,292 tons), followed by dried *shiitake* (9,165 tons). In addition, China comes the top spot in Jew's ear and other mushrooms as well.

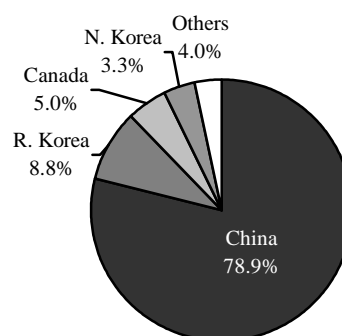
Dried *Shiitake* is a traditional preserved food of Japan. Now almost of the imported *shiitake* is from China. Lower priced dried *shiitake* from China is used mainly for industrial use. In 2001, imports of fresh *Matsutake* from North Korea tumbled, due to poor harvest, imports from China and Canada increased. A considerable amount of Jew's ear had being imported from Taiwan in the past, but Chinese products have overwhelmed recently Taiwanese products. While small in value and volume, truffles are being imported from France and Italy. But on a volume basis, China overwhelmingly leads with a 72.4% share.

Fig. 2 Principal exporters of mushrooms to Japan

Trends in import volume by leading exporters



Shares of mushroom imports in 2001 (value basis)



	1997	1998	1999	2000		2001			
	Volume	Volume	Volume	Volume	Value	Volume	Share	Volume	Value
China	39,160	44,503	45,051	55,259	26,718	50,015	97.6%	28,389	78.9%
Canada	689	442	431	323	1,382	349	0.7%	1,789	5.0%
N. Korea	371	556	870	531	3,760	292	0.6%	3,176	8.8%
R. Korea	617	1,086	309	1,309	2,183	211	0.4%	1,180	3.3%
U.S.A.	345	79	132	126	477	125	0.2%	504	1.4%
Others	378	425	257	250	843	263	0.5%	948	2.6%
TOTAL	41,559	47,090	47,050	57,798	35,363	51,255	100.0%	35,986	100.0%
(E U)	92	129	69	63	443	88	0.2%	574	1.6%

Units: tons, ¥ million

Source: Japan Exports and Imports

Fig. 3 Leading exporters of mushrooms to Japan by variety (2001)

	TOTAL	First			Second		
		Country	Share	Yearly change	Country	Share	Yearly change
Fresh <i>shiitake</i>	36,301	China	99.98%	86.3	U.S.A.	0.02%	*
Dried <i>shiitake</i>	9,253	China	99.0%	101.8	N. Korea	0.8%	64.2
Fresh <i>matsutake</i>	2,395	China	63.9%	117.1	Canada	13.7%	120.6
Jew's ear	2,390	China	99.97%	96.6	Vietnam	0.02%	*
Truffles	16	China	72.4%	60.8	France	14.6%	75.6

Units: tons

Source: Japan Exports and Imports

(3) Imports' Market Share in Japan

As it has become increasingly difficult to supply fresh *shiitake* domestically at affordable prices, fresh *shiitake* imports have shown a rapid increase in recent years. Based on figures from the Forestry Agency's report, imports' market share reaches to 38.5% in 2000. The share of imported dried *shiitake* topped the 60 percent mark. There are no accurate figures on domestic production of truffles, and observers believe that imports hold a near-monopoly on this market.

Fig. 4 Imports' share of *shiitake* in the Japanese market

		1996	1997	1998	1999	2000
Fresh <i>shiitake</i>	Domestic production	75,157	74,782	74,217	70,511	67,224
	Imports	24,394	26,028	31,396	31,628	42,057
	Exports	99,551	100,810	105,613	102,139	109,281
	Imports' share	24.5%	25.8%	29.7%	30.9%	38.5%
Dried <i>shiitake</i>	Domestic production	6,367	5,506	5,338	5,786	5,552
	Imports	7,206	9,400	9,048	9,146	9,144
	Exports	13,573	14,906	14,386	14,932	14,696
	Imports' share	53.1%	63.1%	62.9%	61.3%	62.2%

Unit: tons

Sources: Forestry Agency, Japan Exports and Imports

3. Key Considerations related to Importing

(1) Regulations and Procedural Requirements at the Time of Importation

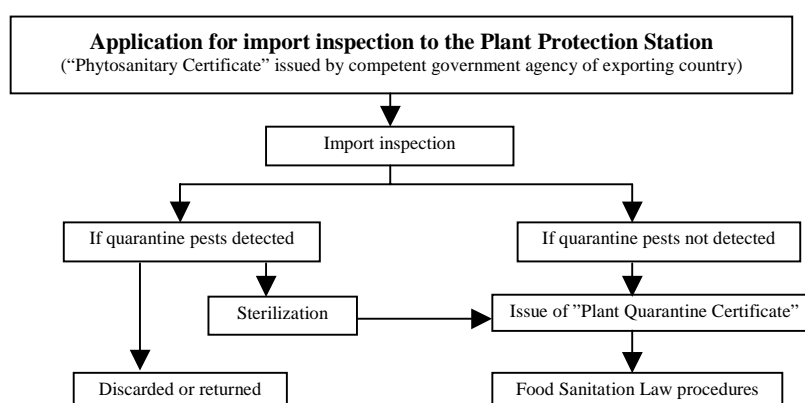
Depending on how they are used, mushroom imports are subject to provisions variously of the Plant Protection Law, the JAS Law, and the Pharmaceutical Affairs Law.

1) Plant Protection Law

The Law prohibits the importation of mushrooms with attached particles of soil, regardless of their intended use. Mushrooms intended for consumption as food, such as *matsutake*, *shiitake* and Jew's ear, generally pose no potential harm to other plants or trees, and they usually need not fulfill procedural requirements of the Law.

Imports of some other type of mushroom or a mushroom that has never before been imported are also subject to provisions of the Plant Protection Law, whose purpose is to prevent the spread of any injurious plants into Japan. Upon arrival at the port of entry, the importer must promptly submit to the Plant Protection Station an "Application for Import Inspection of Plants and Import-Prohibited Articles" along with a "Phytosanitary Certificate" issued by the competent government agency of the exporting country. Importers should note that only certain ports of entry equipped with plant quarantine facilities are designated for plant imports. If an infestation is detected, and then the importer will be ordered to decontaminate, discard, or return to the shipper.

Fig. 5 Plant Protection Law procedures



2) Food Sanitation Law

Mushrooms being imported and sold for consumption as food are subject to provisions of the Food Sanitation Law designed to assure the health and safety of food items. Under provisions of the Law, an import notification is required for mushrooms being imported for the purpose of sale or for other commercial purposes.

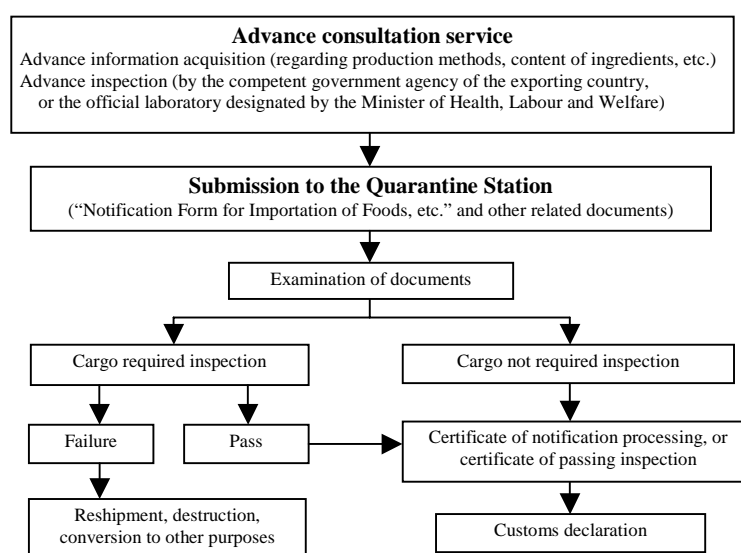
Importers are required to submit the completed “Notification Form for Importation of Foods, etc.” to the Quarantine Station at the port of entry. A determination is made based on the document examination whether or not an inspection at the bonded area is required.

Mushrooms imported from Europe (such as French truffles) remain subject to radiation check requirements instituted after the Chernobyl nuclear power plant accident. However, if the importer submits inspection results for radiation testing by a testing laboratory of the competent government agency of the exporting countries, radiation testing may be omitted at customs in Japan.

Prior to importing, the importer may take a sample of forthcoming imports to official laboratories designated by the Minister of Health, Labour and Welfare in Japan or in exporting countries. Those test results may be substituted for the corresponding inspection at the port of entry, which expedites the quarantine clearance process.

In addition, importers who wish to submit their notifications by computer may make use of the computerized FAINS (Food Automated Import Inspection and Notification System) for processing import-related documentation. Importers who have the required hardware and software may apply for a security code from the Minister of Health, Labour and Welfare to access the system.

Fig. 6 Procedures required under the Food Sanitation Law



3) Pharmaceutical Affairs Law

Some mushrooms, such as hoelen and hog-tuber, are used as raw materials for making certain types of traditional Chinese-style herbal medicines. Imports of mushrooms intended for medicinal use are subject to provisions of the Pharmaceutical Affairs Law. For more complete information, please consult “VI-6 Natural Medicines” in this guidebook.

(2) Regulations and Procedural Requirements at the Time of Sale

The sale of mushrooms is subject to the Food Sanitation Law, the JAS Law, the Measurement Law, the Containers and Packaging Recycling Law, and the Pharmaceutical Affairs Law.

1) Food Sanitation Law

The Food Sanitation Law prohibits the sale of foods containing toxic or harmful substances and foods that are unsafe for human health. When selling processed mushrooms such as dried *shiitake* and Jew’s ear, they must be labeled in accordance with provisions of the Food Sanitation Law (see 4. Labeling).

2) JAS Law

(Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products)

The JAS Law establishes quality labeling standard for all food and beverage products sold to ordinary consumers. Accordingly, fresh mushrooms are subject to the Fresh Food Product Quality Labeling Standard, and dried mushrooms are subject to the Processed Food Product Quality Labeling Standard. Further, the Dried Shiitake Quality Labeling Standard defines labeling items according to the product characteristics. (see 4. Labeling)

3) Measurement Law

Processed mushrooms sealed in wrapping or containers are required the labeling of the net content to certain accuracy (range of error specified by Cabinet Ordinance).

4) Containers and Packaging Recycling Law (Law for Promotion of Sorted Collection and Recycling of Containers and Packaging)

The Containers and Packaging Recycling Law was enacted to promote recycling of container and packaging waste materials. It provides for sorting by consumers, sorted collection by municipalities, and product reuse (recycling) by product makers and distributors for glass bottles, PET bottles, paper and plastic containers and packaging. Consequently, importers of packaged mushroom incur the obligation for recycling of containers and packaging (although stipulated small-scale importers are exempt). Please consult the competent government agencies listed below for more information.

5) Law for Promotion of Effective Utilization of Resources

As of April of 2001, new identifier labeling requirements apply to paper (not including beverage containers not containing aluminum) and plastic container materials, in addition to previously existing labeling requirements for steel and aluminum cans or PET bottles. (see 4. Labeling)

6) Pharmaceutical Affairs Law

Some mushrooms, such as hoelen and hog-tuber, are used as raw materials for making certain types of traditional Chinese-style herbal medicines. When selling mushrooms intended for medicinal use, they are subject to provisions of the Pharmaceutical Affairs Law. For more complete information, please consult “VI-6 Natural Medicines” in this guidebook.

(3) Competent Agencies

- Mushrooms in general
Forest Policy Planning Department, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries
TEL: 03-3502-8111 <http://www.rinya.maff.go.jp>
- Food Sanitation Law
Policy Planning Division, Department of Food Sanitation, Pharmaceutical and Medical Safety Bureau, Ministry of Health, Labour and Welfare
TEL: 03-5253-1111 <http://www.mhlw.go.jp>
- Plant Protection Law
Plant Protection Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries
TEL: 03-3502-8111 <http://www.maff.go.jp>
- JAS Law
Standards and Labeling Division, General Food Policy Bureau, Ministry of Agriculture, Forestry and Fisheries
TEL: 03-3502-8111 <http://www.maff.go.jp>
- Measurement Law
Measurement and Intellectual Infrastructure Division, Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry
TEL: 03-3501-1511 <http://www.meti.go.jp>
- Containers and Packaging Recycling Law / Law for Promotion of Effective Utilization of Resources
Recycling Promotion Division, Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry
TEL: 03-3501-1511 <http://www.meti.go.jp>
Recycling Promotion Division, Waste Management and Recycling Department, Ministry of the Environment
TEL: 03-3581-3351 <http://www.env.go.jp>
Food Industry Policy Division, General Food Policy Bureau, Ministry of Agriculture, Forestry and Fisheries
TEL: 03-3502-8111 <http://www.maff.go.jp>
- Pharmaceutical Affairs Law
General Affairs Division, Pharmaceutical and Medical Safety Bureau, Ministry of Health, Labour and Welfare
TEL: 03-5253-1111 <http://www.mhlw.go.jp>

4. Labeling

(1) Legally Required Labeling

<Fresh mushrooms>

Fresh mushrooms are subject to the Fresh Food Product Quality Labeling Standards under the JAS Law. It is required to place labeling of the following items on the container or packaging in a readily visible location, or to display it in a readily visible location adjacent to the applicable fresh food item.

- 1) Product name
- 2) Country of origin

<Dried mushrooms>

When selling processed mushrooms such as dried *shiitake* and Jew's ear sealed in wrapping or containers, following items must be listed all together on the label, under provisions of the Food Sanitation Law, the Processed Food Product Quality Labeling Standards under the JAS Law, and the Measurement Law. Further, the Dried Shiitake Quality Labeling Standard defines labeling items according to the product characteristics.

<Labeling items to be listed all together>

- 1) Product name
- 2) Date of minimum durability (best-before date)
- 3) List of ingredients
- 4) Net contents
- 5) Preservation method
- 6) Country of origin
- 7) Importer's name and address

Example label for dried *shiitake*

Product name	Dried <i>shiitake</i>
Ingredients	<i>Shiitake</i> (grown on sticks of wood)
Size	Medium
Net contents	150g
Date of minimum durability	Year/month/day
Preservation method	Avoid direct sunlight, and store at a location of low humidity and at room temperature.
Country of origin	China
Importer	Name and address

Mushrooms used in Chinese-style herbal medicines are subject to labeling requirements of the Pharmaceutical Affairs Law. For more complete information, please consult "VI-6 Natural Medicines" in this guidebook.

<Labeling under the Law for Promotion of Effective Utilization of Resources>

When paper or plastic is used as a packaging material for wrapping of individual product items, or for labels, external packaging or elsewhere, a material identifier mark must be displayed with information where the material is used.

< Example >



External packaging



Individual packaging

(2) Voluntary Labeling Based on Provisions of Law

<Labeling under the JAS Law>

The JAS Law defines standards on fresh and dried *shiitake*. Products that undergo inspection and are certified compliant with JAS standards for cap shape, thickness and width, as well as net contents and packaging condition are allowed to display the JAS mark on the product. However, application for grading is voluntary, and products do not have display the JAS mark in order to be sold.

JAS Mark



Under the previous JAS Law, manufacturers must undergo inspection by a registered grading organizations. But under the amended JAS Law, both domestic and overseas manufacturers, production process supervisors (farmer producers), sorters, and importers in Japan may be authorized to self-qualify with the approval of a registered certification organization.

Contact:

Center for Food Quality, Labeling and Consumer Services Headquarters
Standard and Labeling Department TEL: 048-600-2371 <http://www.cfqlcs.go.jp>

(3) Voluntary Industry Labeling

There is no voluntary industry labeling for mushrooms.

5. Taxes

(1) Customs Duties

The table below presents tariff rates on mushrooms.

Fig. 7 Customs duties on mushrooms

HS No.	Description	Rate of Duty (%)			
		General	WTO	Preferential	Temporary
0709.51	Mushrooms, fresh and chilled	5%			
-010	(1) <i>Matsutake</i>		3%	Free	
-020, -090	(2) <i>Shiitake</i> mushrooms and others		4.3%		
.52 -000	Truffles, fresh and chilled	5%	3%		
0712.30	Mushrooms and truffles, dried	15%			
-010	(1) <i>Shiitake</i> mushrooms		12.8%		
-091, -099	(2) Jew's ear and others		9%	9% *Free	

Note 1: “*Free” in Preferential Rate is applicable only for Least Less Developed Countries.

Note 2: Refer to “Customs Tariff Schedules of Japan” (published by Japan Tariff Association) etc. for interpretation of tariff table.

(2) Consumption Tax

(CIF + Customs duty) x 5%

6. Product Characteristics

The varieties of mushroom most commonly imported into Japan have the following characteristics:

- *Shiitake* (dried or fresh)

As stated previously, China holds more than 90% of the fresh and dried *shiitake* market. Inoculating large boxes of sawdust with the spores produces Chinese *shiitake*. Compared with Japanese *shiitake*, which is grown on sticks of wood, Chinese *Shiitake* has a more bland taste and fragrance and has softer flesh, and it can be harvested year-round. Its prices are very low, and it is often used not only for restaurants and in food processing industries, but also for household use. The average consumer would find it nearly impossible to tell apart Japanese-grown *shiitake* from imported *shiitake* when shopping in stores.

- *Matsutake*

Matsutake is noted for its distinctive fragrance, the stronger the better. Korean and Chinese *matsutake* is similar to Japanese *matsutake* in taste, but the fragrance is much weaker, so their prices are lower. Canadian and American *matsutake* tends to have an even weaker fragrance than Korean and Chinese *matsutake*, so it is often flavored and then used in soup stock. Canadian and American *matsutake* also tends to be larger than Japanese *matsutake*.

- Jew's ear

Japan produces only a very small amount of Jew's ear. Imports have almost all of the Japanese market, and most are imported in dried form.

- Truffles

Japan produces virtually no truffles. In volume, nearly 80% are imported from China and used mainly for commercial and industrial use. Truffles imported from France and Italy are prized for their distinctive fragrance and their delicacy, and they are rather more expensive than other types of mushrooms.

- Other mushrooms

There are many different types of mushrooms, each of which has its own unique taste and potential uses. Climate and growing conditions can also produce notable differences in taste and texture even in the same species of mushroom. Field mushrooms are being used in an ever-wider range of foods nowadays. Imports from the United States and Canada have much the same taste as Japanese field mushrooms, but they are often larger. The United States and Canada also export brown mushrooms to Japan, while China also exports white mushrooms to Japan.

7. Domestic Distribution System and Business Practices

(1) Domestic Market Conditions

Mushrooms are broadly classified into fresh and dried types, each of which has different systems for production and distribution. Because fresh mushrooms remain fresh for only a limited amount of time, fresh mushrooms are concentrated near large cities where there are large numbers of consumers. Recent years have seen increased use of airfreight to import fresh *matsutake* and *shiitake* in order to get them to market when they are still fresh. While production of *shiitake* mushrooms is in long-term decline that of *shimeji* and *maitake* mushrooms have grown.

Mushroom demand in Japan can be generally classified into commercial use, household use and gift purchase uses. Commercial use demand both for restaurants and for food processors has grown more rapidly in recent years than the other types of demand. *Shiitake* demand tends to be fairly constant throughout the year, partly because it can be grown year-round and partly because it has a vast range of culinary uses. About 80 percent of fresh *shiitake* are used in the home and 20 percent by industry. The home and the remainder for gift use about 60 percent of the dried *shiitake* for industry, just under 30 percent. Fresh and dried *shiitake* is less vulnerable to changes in the weather. Prices are relatively stable year round. In recent years, growth in fresh *shiitake* imports, and most especially the large volume of low-priced fresh *shiitake* from China, has resulted in consistently lower fresh vegetable prices.

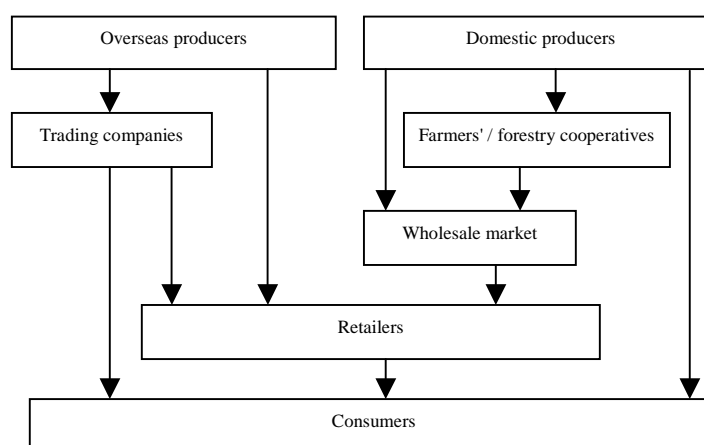
Market prices for *matsutake* fluctuate considerably according to supply and demand factors and according to the quality of the mushrooms. The *matsutake* supply depends greatly on weather conditions. Prices go down when supplies are plentiful and up when supplies are scarce. The market is made more complex by the fact that mushroom demand is driven to some extent by changing trends in consumer taste, and yet higher prices tend to drive consumers away.

(2) Distribution Channels

There are two primary distribution channels for mushrooms. Fresh *matsutake* and *shiitake* are usually distributed through the same channels as vegetables and fruits (see Fig. 8). On the other hand, dried *shiitake* and other dried mushrooms are generally sold on consignment through farmers' cooperatives and forestry cooperatives to mushroom wholesalers. Dried *shiitake* falls under the category of dried goods and in the past was considered a luxury type of mushroom; therefore its own unique distribution channel has been formed. (see Fig. 9)

In the case of imports, fresh mushrooms go from the importer to the produce markets, after which they are distributed through the same channels as Japanese mushrooms. Imported dried mushrooms go from the trading company to the wholesaler and then to retailers or food processors. 60 to 70 percent of the imports of dried *shiitake* are used by packers (wholesalers doing the grading, packaging, and primary processing) doubling as importers. Importers who are not packers are called "outsiders."

Fig. 8 Distribution channels for fresh mushrooms

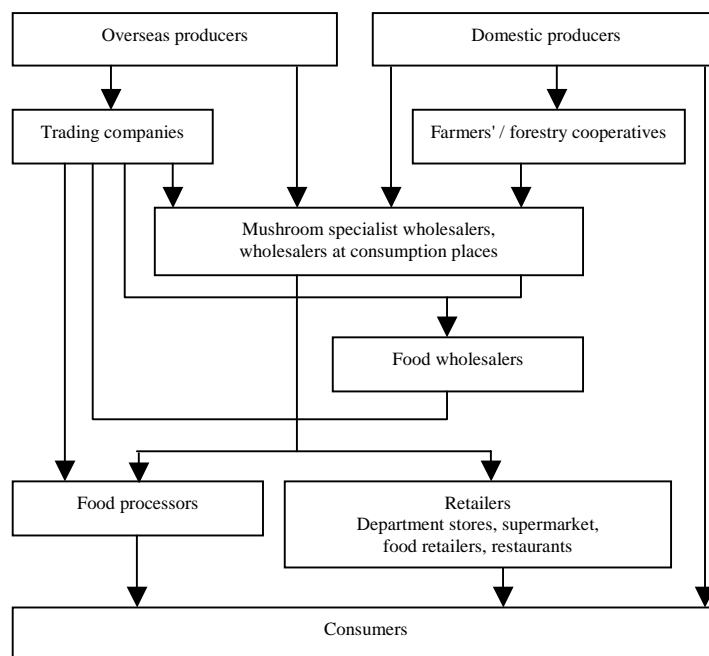


(3) Key Considerations for entering the Japanese Market

Mushrooms are subject to regulatory requirements of the Food Sanitation Law and other statutes, and prospective importers need to be fully knowledgeable about the legal and regulatory environment. Prospective importers of fresh mushrooms should carefully study not only the cost of production but also the cost of transportation, inasmuch as most importers rely on airfreight to get the goods to market while still fresh. It is also important to identify likely prospects for the products.

Importers also need to realize that the Japanese market judges products very severely with regard to product quality and standards compliance. They need to pay close attention to freshness, size and other characteristics of their products. Prospective importers of a new variety of mushroom need to know its correct tax classification, since there are many species mushrooms which are harmful to human health.

Fig. 9 Distribution channels for dried mushrooms



Note: The comments in this section apply to mushrooms intended for use as food. Please refer to the separate section on “VI-6 Natural Medicines” for market conditions for mushrooms used as ingredients for traditional Chinese-style herbal medicines.

8. After-Sales Service

After-sales service is generally not required. But, if happened, importers and resellers bear legal responsibility for any defects in mushrooms.

9. Related Product Categories

A related product category is canned or bottled boiled mushrooms. These products are subject to provisions of the Food Sanitation Law when imported into or sold in Japan. There are also product standards and labeling standards for these products under the Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products (JAS Law).

10. Direct Imports by Individuals

Normally imports of mushrooms by individuals for consumption as food are exempted from requirements of the Food Sanitation Law. The Plant Protection Law regulates imports of mushrooms for non-food purposes, and the Law prohibits imports of mushrooms with attached soil particles. However, imports of such items may be permitted for research purposes, subject to approval by the appropriate government agency.

11. Related Organizations

- Japan Special Forest Product Promotion Association TEL: 03-3293-1197
- The Japan Mushroom Growers Cooperative TEL: 054-667-3121
- The Japan *Kinoko* Research Center Foundation TEL: 0857-22-6161 <http://www.kinokonet.com>
- The Mushroom Research Institute of Japan TEL: 0277-22-8165 <http://www.sunfield.ne.jp/~kinoko/kinokoken/>