

**UNITED STATES INTERNATIONAL TRADE COMMISSION**

**MUSHROOMS**

**Report to the President  
on Investigation No. TA-201-17  
Under Section 201 of the Trade Act of 1974**



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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REPORT TO THE PRESIDENT

U.S. International Trade Commission  
January 10, 1977.

To the President:

In accordance with section 201(d)(1) of the Trade Act of 1974 (88 Stat. 1978), the United States International Trade Commission herein reports the results of an investigation made under section 201(b)(1) of that act, relating to mushrooms.

The investigation was undertaken to determine whether--

mushrooms, prepared or preserved, except fresh  
or dried, provided for in item 144.20 of the  
Tariff Schedules of the United States (TSUS),

are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing articles like or directly competitive with the imported articles.

Pursuant to the direction of the President, the Special Representative for Trade Negotiations, in a letter dated September 20, 1976, requested the Commission to institute an expedited investigation on mushrooms pursuant to section 201(b)(1) of the Trade Act. Having determined, pursuant to section 201(e) of the Trade Act, good cause to exist for a reinvestigation within 1 year since the Commission made its report to the President on its previous investigation on mushrooms, the Commission instituted the requested investigation on October 5, 1976.

Notice of the investigation and hearing was published in the Federal Register of October 12, 1976 (41 F.R. 44756). A public hearing in

connection with the investigation was conducted on November 11 and 12, 1976, in the Commission's hearing room in Washington, D.C. All interested parties were afforded an opportunity to be present, to produce evidence, and to be heard. A transcript of the hearing and copies of briefs submitted by interested parties in connection with the investigation are attached.

The information for this report was obtained from fieldwork, from responses to questionnaires sent to importers and domestic canners, and from the Commission's files, other Government agencies, evidence presented at the hearings, briefs filed by interested parties, and other sources.

Determinations, Findings, and Recommendations  
of the Commission

On the basis of its investigation, the Commission determines 1/ that mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States, are being imported in such increased quantities as to be a substantial cause of serious injury or the threat thereof 2/ to the domestic industry producing articles like or directly competitive with the imported articles.

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1/ Commissioners Parker, Leonard, Moore, and Ablondi determine in the affirmative. Commissioner Minchew determines in the negative. Commissioner Bedell abstains.

2/ Commissioners Parker, Leonard, Moore, and Ablondi determine that the domestic industry is seriously injured. Commissioner Parker also determines that the domestic industry is threatened with serious injury.

Findings and recommendations

Commissioners Minchew, 1/ Parker, and Moore --

find that to prevent the injury described in section 201(b) of the Trade Act it is necessary to impose a tariff-rate-quota system for the ensuing 5-year period applying to the mushrooms covered by the Commission's notice of investigation, which are the subject of the Commission's affirmative determination, with the existing rates of duty applying to imports of mushrooms within the tariff quotas and rates of duty hereinafter specified applying to such imports above the tariff quotas, and with the tariff quotas established and allocated to countries subject to rates of duty provided for in rate-of-duty column numbered 1 of the TSUS as hereinafter specified.

The proposed rates of duty for imports above the tariff quotas should be as follows:

<u>First three years</u>	<u>Fourth year</u>	<u>Fifth year</u>
3.2¢ per lb. on drained weight + 35% ad val.	3.2¢ per lb. on drained weight + 25% ad val.	3.2¢ per lb. on drained weight + 15% ad val.

The within quota imports entered in any year should be established and allocated to countries as follows:

<u>Country</u>	<u>Aggregate annual quota</u> <u>(Millions of pounds,</u> <u>drained weight)</u>
Republic of China (Taiwan)-----	31.7
Republic of Korea-----	11.8
Japan-----	1.4
Dominican Republic-----	.7
France-----	.6
Costa Rica-----	.5
Ecuador-----	.5
All others-----	.8
Total-----	48.0

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1/ Commissioner Minchew, noting that the Commission has made an affirmative determination, has made a recommendation of remedy.

Commissioners Leonard and Ablondi--

determine, pursuant to section 201(d)(1) of the Trade Act, that adjustment assistance as provided in title II, chapters 2, 3, and 4, of that act can effectively remedy the serious injury to the domestic industry, and recommend the provision of such assistance.

Views of Vice Chairman Joseph O. Parker

On March 17, 1976, the Commission determined with respect to investigation No. TA-201-10 that mushrooms, prepared and preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States (TSUS), were being imported in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. On May 17, 1976, the President on the basis of the injury determination of the Commission determined that expedited adjustment assistance was the appropriate remedy for the serious injury or threat thereof which was found by the Commission to exist.

On September 20, 1976, the Commission received a letter from the Special Representative for Trade Negotiations citing significant changes in the volume of imports and requesting a new investigation on an expedited basis under section 201(b) of the Trade Act of 1974 to determine whether the mushrooms provided for in item 144.20 of the TSUS are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. The Commission instituted the requested investigation on October 5, 1976, having determined, pursuant to section 201(e) of the Trade Act, good cause to exist for an investigation to be made within 1 year of its previous report to the President on the same subject matter.

Determination

After considering the evidence obtained by the Commission in this investigation, I determine that increased imports of mushrooms as described above are a substantial cause of serious injury and the threat thereof to the domestic industry producing like or directly competitive articles.

Domestic industry

As I did in the previous investigation, No. TA-201-10, in making my determination in this investigation I have considered the domestic industry to consist of the domestic facilities devoted to the production of canned mushrooms. The record of this investigation does not demonstrate that mushroom growers, which have not alleged injury or sought relief from the Commission, should be included within the scope of the domestic industry for purposes of this determination.

Increased imports a substantial cause of serious injury and threat of serious injury

In the marketing years 1970/71 to 1974/75, imports of canned mushrooms measured on a fresh-weight basis increased from 43 million pounds to 77 million pounds, or by almost 80 percent. Imports of canned mushrooms continued to increase during the marketing year 1975/76, rising to 88 million pounds on a fresh-weight basis. Thus, imports of canned mushrooms increased by 14 percent during the last marketing year. When a comparison is made between imports of canned mushrooms during the first 10 months of 1975 : imports of these articles during the corresponding period in 1976, the increase is even greater. During the former period such imports totaled 47.5 million pounds, while in the latter period they increased to 62 million

pounds, or by 30 percent. In my previous determination it was my judgment, as stated in my opinion, that imports of canned mushrooms would increase at an even more rapid rate than that which was being experienced at that time. This judgment has now been verified by current statistics, as imports of canned mushrooms have reached the highest level in history. Thus, the statutory criterion of increased imports is clearly satisfied.

While imports have been increasing steadily in recent years, the domestic industry has suffered severe reverses. Nine mushroom canners have ceased mushroom-canning operations since the 1960's; two of these nine canners have ceased mushroom-canning operations since the completion of the previous Commission investigation. Domestic production of canned mushrooms has decreased as the number of producers has declined: in the 1975/76 marketing year domestic mushroom canners produced 8 million pounds less on a fresh-weight basis than they did in the 1974/75 marketing year, and 33 million pounds less than they did in the 1971/72 marketing year.

In addition, the domestic mushroom canners have continued to be unable to achieve a reasonable level of profitability. Financial returns for partial year 1976 were received by the Commission from 21 canners accounting for approximately 65 percent of sales of domestically canned mushrooms. The returns have established that these canners had an aggregate ratio of net profit before income tax to net sales of only 1 percent during this period; this was the highest rate of return they had achieved since 1972.

Employment in the domestic mushroom-canning industry has also continued to decline. Between the 1974/75 and 1975/76 marketing years the number of production and related workers declined from 1,350 to 1,207, or by 11 percent.

The number of man-hours worked by them declined even more, decreasing from 1.5 million hours in the 1974/75 marketing year to 1.2 million hours in the 1975/76 marketing year, or by 20 percent.

As demonstrated by the factors set forth above, the domestic mushroom-canning industry has experienced a significant idling of productive facilities, an inability to operate at a reasonable level of profit, and a significant decline in employment. Thus, it is clearly established that the threat of serious injury which I found in the earlier investigation on mushrooms has now materialized.

Although in my prior determination I recognized that the injury being suffered in the years 1973-75 was directly related to the effects of recalls caused by the appearance of botulism and attendant adverse publicity, it is now clear that the injury being suffered by the domestic industry is substantially caused by increased imports. As mentioned above, imports of canned mushrooms increased by 14 percent between the 1974/75 and 1975/76 marketing years. This fact, together with the decline in domestic production, during the same period, caused the ratio of imports of canned mushrooms to domestic production to increase from 68 percent to 85 percent. Likewise, while domestic consumption of canned mushrooms has been steadily increasing, imports have supplied an ever larger share. In the 1974/75 marketing year the ratio of imports to consumption was 40 percent, and in the 1975/76 marketing year this ratio increased to 44 percent.

To a large extent the increase in imports of canned mushrooms and the attendant injury to the domestic industry are the result of the lower prices at which the imported articles are sold. Complete quarterly price information is available through September 1976. This information has established that in the first 9 months of 1976 the average price of a case of imported



mushrooms in retail-size cans (both stems and pieces and slices and buttons) was consistently below the average price of an equivalent case of domestically produced canned mushrooms. The average price of a case of imported mushrooms in institutional-size cans of stems and pieces was also consistently below the average price of an equivalent case of domestically produced mushrooms during the same 9-month period. With respect to a case of institutional-size cans of mushroom slices and buttons, the average price of the imported product was consistently below the average price of the domestically produced product during the first two quarters of 1976, but in the third quarter of 1976, the average price of such mushrooms from the Republic of Korea climbed above the average domestic price. The average price of these mushrooms imported from the Republic of China, however, remained below the average domestic price. On the basis of these factors, I have determined that increased imports are a substantial cause of the serious injury which the domestic mushroom-canning industry is presently suffering.

As a result of the recalls caused by botulism during the period 1973-75 and the continuing increase in imports, the domestic mushroom-canning industry is in a weakened financial condition. As noted above, total imports of canned mushrooms again increased sharply in 1976, and there is nothing to indicate that there will be a substantial lessening of import competition in the absence of import relief. Evidence obtained in the Commission's current investigation indicates that the Republic of China, which is the largest supplier of imported canned mushrooms, has established a target for exports to the United States in 1977 greater than the amount of its exports in 1976. There is evidence to the effect that other countries also plan to increase exports of mushrooms to the United States.

In view of the present weakened condition of the domestic mushroom-canning industry, which has already been shown to be vulnerable as a result of injury from imports, I have determined that increased imports are a substantial cause of serious injury and that there is a threat of continued serious injury to the domestic industry unless effective import relief is provided.

#### Remedy

In my previous determination I recommended as a remedy a tariff-quota that was designed to eliminate to the maximum extent feasible the threat of serious injury facing the domestic industry from the then-existing level of imports. The recommended increment in the ad valorem rate was intended to provide price protection in the form of a higher duty against the excessive imports that threatened the domestic industry. The relief was designed to give the domestic industry a period of time in which to improve its competitive position and strengthen its financial foundation and thereby enable it to adjust to international competition.

The Commission's current investigation has established that the increase in imports above the average level of imports in the 1972/73 through 1974/75 marketing years has been a substantial cause of serious injury to the domestic industry. The remedy that I have recommended will provide price protection in the form of a higher duty against excessive imports. The tariff-quota levels that I have recommended will also permit continued importation of substantial quantities of canned mushrooms and allow competitive forces to maintain market discipline.

Pursuant to section 201(d)(1) of the Trade Act, I have considered whether adjustment assistance can effectively remedy the serious injury

and threat thereof that I have determined to exist. It is recognized that adjustment assistance might enable some firms to obtain needed capital to improve operating efficiencies. Such adjustment assistance is now available on an expedited basis as a result of the previous Commission determination and recommendation. However, even assuming that such assistance will be utilized by the domestic mushroom-canning industry, it will not, in my opinion, eliminate the present serious injury and threat of serious injury to the domestic industry from increased imports. As I noted in my previous recommendation of remedy, the tariff quota that I have recommended will enhance the possibilities for success of any adjustment assistance which might be sought and provided.

## Views of Commissioner Will E. Leonard

On September 20, 1976, the United States International Trade Commission received a letter from the Special Representative for Trade Negotiations requesting an expedited investigation, pursuant to section 201(b)(1) of the Trade Act of 1974, to determine whether mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. The Commission, having determined pursuant to section 201(e) of the Trade Act that good cause existed for a reinvestigation within 1 year since the Commission made its report to the President on its previous investigation on mushrooms, instituted the requested investigation on October 5, 1976.

Determination and recommendation

Having reviewed the evidence gathered by the Commission in the course of the current investigation on mushrooms (investigation No. TA-201-17), as well as the evidence gathered in the previous investigation (No. TA-201-10), I determine that the criteria as set forth in section 201(b)(1) of the Trade Act for an industry to be eligible for relief from imports have been met with respect to the imports that are the subject of this investigation. Specifically, I determine

that mushrooms that are the subject of this investigation are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing mushrooms like or directly competitive with such imported mushrooms.

Further, I determine, pursuant to section 201(d)(1) of the Trade Act, that adjustment assistance can effectively remedy the serious injury that I find to exist, and therefore I recommend the provision of such assistance.

Domestic industry, increased imports, serious injury, and substantial cause

For my views on the definition of the domestic industry, and regarding the criteria of increased imports, serious injury, and substantial cause, the reader is referred to the analysis and conclusions contained in my opinion set forth in the Commission's previous report to the President on mushrooms. 1/

Since that report was sent to the President on March 17, 1976, additional facts have come to light. Canned-mushroom imports for the first 10 months of 1976 (the latest data available to the Commission) increased by almost 30 percent over the volume imported during the corresponding period a year earlier. The ratio of imports of canned mushrooms to total domestic production of mushrooms increased from 26 percent in the 1974/75 marketing year (July 1 to June 30) to 28 percent in 1975/76.

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1/ Views of Chairman Will E. Leonard in Mushrooms: Report to the President on Investigation No. TA-201-10 . . . , USITC Publication 761, 1976, pp. 5-15.

The number of production and related workers employed by domestic mushroom canneries decreased from 1,360 in 1974/75 to 1,207 in 1975/76. Cannery man-hours worked declined even more--from 1.5 million in 1974/75 to 1.2 million in 1975/76.

Partial-year financial data for 1976 obtained by the Commission reveal that the profitability of both canners and growers has improved somewhat since the previous mushroom investigation. However, the profitability of canners in particular is still unacceptably low. The 21 canners surveyed by the Commission (representing about 65 percent of total canners' sales for partial year 1976) reported a ratio of net operating profit to net sales of only 2.4 percent. Fully one-third of these canners were operating at a loss. The ratio of net operating profit to net sales for the 16 mushroom growers surveyed (accounting for about 35 percent of all fresh mushrooms sold in partial year 1976) was somewhat higher--about 10 percent.

Penetration of the U.S. market by canned-mushroom imports has continued to increase. The share of total domestic mushroom consumption taken by these imports rose from 21 percent in 1974/75 to 22 percent in 1975/76.

Having studied the new facts which became available since the completion of the Commission's previous investigation on mushrooms, I conclude that these facts do not alter the result I reached in that earlier investigation, viz, that increased imports of mushrooms provided for in TSUS item 144.20 (almost all of which are canned) are a substantial cause of serious injury to the domestic industry which grows and cans mushrooms.

Recommendation of adjustment assistance

At the conclusion of the Commission's prior escape-clause investigation on mushrooms in March 1976, I determined that adjustment assistance under chapters 2, 3, and 4 of title II of the Trade Act could effectively remedy the serious injury being suffered by the domestic industry, and I recommended the provision of such assistance. As no information has been brought to my attention in the course of the current investigation that would lead me to change my position on the issue of remedy, I again recommend the provision of adjustment assistance to the domestic industry.

Less than 8 months have elapsed since the President, acting pursuant to section 202 of the Trade Act, directed expedited trade adjustment assistance for the domestic mushroom industry. In my view it is unrealistic to expect adjustment assistance to operate effectively within such a period of time. More time is needed. This conclusion is buttressed by the fact that, as of November 15, 1976, not one of the six firms certified by the U.S. Department of Commerce as eligible to apply for adjustment assistance had yet progressed to the point of gaining approval for its plan of economic recovery.

As I pointed out in my opinion in connection with the prior mushroom investigation, the domestic industry has made efforts to compete with increased imports. I continue to be of the view that adjustment assistance, given sufficient time to become effective, is likely to permit the domestic industry to make further efforts to adjust successfully to the import competition it has experienced. Indeed, the recent improvement of conditions in the domestic mushroom industry should make

it even more likely now than 9 months ago that adjustment assistance will enable the domestic industry to compete effectively with imports.

### Conclusion

Having examined the evidence gathered by the Commission in the course of this investigation, I determine that mushrooms that are the subject of this investigation are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic mushroom growing and canning industry. I further determine that adjustment assistance can effectively remedy such injury.

### Further comments

In determining whether to provide import relief and what method and amount of import relief to provide, the President is directed by section 202(c) of the Trade Act to take into account certain relevant considerations. The Commission's investigation on mushrooms produced information relating to the cost to consumers of import restrictions, which has a bearing on some of the considerations enumerated in section 202(c) and which may be of interest to the President.

In an attempt to estimate the cost to consumers of possible alternative remedies, the Commission made a number of statistical analyses using data gathered during this and the previous investigation. The results were generally inconclusive. Calculations designed to link consumer demand for imported mushrooms with their prices were not statistically significant. Calculations using data on domestic mushrooms only led to the following tentative conclusions: First, when the



consumer enters a retail store to buy mushrooms, the absolute level of mushroom prices has little to do with his decision; second, he will tend to select fresh rather than canned mushrooms if the price of fresh mushrooms is lower than that of canned mushrooms, and vice versa. In view of the unsatisfactory statistical results obtained from these calculations, it is not possible to provide a quantitative estimate of the cost to consumers of import restrictions such as an absolute quota or a higher tariff. It is probable that such restrictions would cause a large price increase initially, until domestic growers had time to increase U.S. production sufficiently to overcome the loss of imports. The cost to consumers in the form of higher prices during this initial period could be substantial and may be higher than the cost to U.S. taxpayers of adjustment assistance to firms and workers.

View of Commissioner George M. Moore

I concur with those of my colleagues who have made an affirmative determination in this proceeding. Since the Commission's last escape-clause investigation on canned mushroom imports (TA-201-10) nearly a year ago, conditions affecting the domestic industry by reason of increased imports have changed drastically. These changed conditions constitute the basis for my affirmative determination in the present case.

The 1974 Trade Act clearly enunciates the requirement that an affirmative determination shall be made if certain articles are being imported in such increased quantities as to be a substantial cause of serious injury to the requisite domestic industry. The excessive increase in imports of canned mushrooms during 1976 outweighs any other cause of present serious injury to the domestic industry. During the first 10 months of 1976, U.S. imports of canned mushrooms totaled 62 million pounds, compared with 48 million pounds during the corresponding period in 1975. The impact of the sudden 29-percent increase in less than a year is more important than any other cause of the present serious injury to the domestic industry.

In the course of this Commission investigation and the earlier one, it was apparent that there were other causes of injury to the domestic industry. I discussed a number of these economic factors in my opinion earlier this year.

Botulism food poisoning, which was first discovered in connection with the canned mushrooms in February 1973, has largely disappeared as a major cause of the present serious injury to the domestic industry.

The downward trend in domestic consumption which occurred a few years ago has been abruptly reversed. In recent months there has been a marked increase in domestic consumption of canned mushrooms. However, domestic and imported canned mushrooms did not share equally in the increased sales in the domestic market. In fact, of the 23 million more pounds of canned mushrooms consumed in the marketing year 1975/76 than in 1973/74, 18 million pounds, or almost 79 percent, were imported. The increase in domestic consumption of fresh mushrooms and the consequent advantages to the domestic industry are overshadowed by the loss in sales suffered by the U.S. industry in failing to benefit from the recent increase in canned mushroom consumption. It is significant that the mushroom growers have likewise suffered, because sales of fresh mushrooms to domestic processors were only 3 million pounds more in the marketing year 1975/76 than in 1971/72.

In recent years the prices of domestically produced and of imported cases of six No. 10 institutional-size cans of mushrooms (stems and pieces or buttons or slices) have generally been competitive. However, the present investigation reveals that this condition has suddenly changed. Beginning with the last quarter of 1975 and continuing through 1976, the domestically produced cans of mushroom stems and pieces and buttons and slices were, for the most part, consistently undersold by the imported articles. The price comparisons developed during the Commission's investigation establish a pattern of price suppression by the imported product during the last quarter of 1975 and the year 1976. These facts are particularly significant in the present investigation in view of the fact that almost 60 percent of the imported canned mushrooms are in

institutional-size containers. With respect to the remainder of the imports of canned mushrooms which are in retail-size containers, since 1974 the prices of such imports have been consistently below the prices of the domestically produced canned mushrooms in like containers.

As a consequence of the changed conditions outlined above, which are based on facts developed during the present investigation, I have determined that mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the TSUS are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing like or directly competitive articles.

#### ADDITIONAL VIEWS OF COMMISSIONER MOORE

In the earlier escape clause investigation of canned mushroom imports (TA-201-10) I voted negative, because I believed that the increased importation of canned mushrooms was not a substantial cause of the serious injury being suffered at that time by the domestic industry. However, a majority of the voting Commissioners reached an affirmative decision, and in March 1976 three of the Commissioners who participated recommended "adjustment assistance" as the remedy for the serious injury to the domestic industry. The adjustment assistance recommendation of my three colleagues was accepted and the President ordered such relief to be expedited.

Within less than a year this matter has been returned to the Commission with the request that we institute a new investigation and reach a decision as quickly as possible.

Had effective relief been provided for the domestic industry it is difficult to conceive how this case could so quickly be returned to the Commission.

This is a new investigation, and I have determined that there is new evidence. These new facts have convinced me to vote in the affirmative in the present case. However, in evaluating the kind of relief or remedy necessary for the domestic industry under the provisions of the Trade Act of 1974, I cannot overlook the fact that adjustment assistance has been proven ineffective.

Therefore, the remaining alternative under the Trade Act is for me to recommend an import restriction which is necessary to remedy the serious injury I have found. This recommendation appears on page 3.

## Views of Commissioner Italo H. Ablondi

At the President's direction, the Special Representative for Trade Negotiations on September 20, 1976, requested the United States International Trade Commission to conduct an expedited investigation on mushrooms, pursuant to section 201(b)(1) of the Trade Act of 1974. On October 5, 1976, the Commission instituted an investigation to determine whether mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States, are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic injury producing an article like or directly competitive with the imported article.

Earlier in the year the Commission conducted an investigation concerning the same subject matter as this investigation. In that investigation, I found increased imports to be a substantial cause of the threat of serious injury to the domestic industry. 1/ That finding was consistent with the views which I expressed in an investigation which the Commission conducted in 1973 under section 332 of the Tariff Act of 1930. 2/ While I still find that the criteria for import relief are satisfied, I believe that in the period since investigation No. TA-201-10, the situation has changed to the extent that the threat of injury has been realized. Accordingly, I determine

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1/ Mushrooms: Report to the President on Investigation No. TA-201-10 . . . , USITC Publication 761, 1976.

2/ Mushrooms: Report to the President on Investigation No. 332-72 . . . , TC Publication 580, 1973.

that mushrooms provided for in item 144.20 of the Tariff Schedules of the United States are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing an article like or directly competitive with the imported article.

The evidence received by the Commission during this investigation provides no basis upon which to alter a previous determination that the criteria requisite to an affirmative determination are satisfied. In the interest of brevity, I incorporate by reference my earlier determination, which outlines the basic reasons for an affirmative determination.

Additional facts reveal that during the first 10 months of 1976, imports of canned mushrooms increased by more than 30 percent over those in the corresponding period in 1975, from 48 million to 62 million pounds. This represents a substantial increase both in absolute terms and relative to domestic production. Moreover, during the marketing year 1975/76, the ratio of imports of canned mushrooms to domestic consumption increased by 4 percent over the ratio in 1974/75, reaching an alltime high of 44 percent. Significantly, these increases occurred while the domestic industry was experiencing an overall decline in sales of the canned product.

Of particular concern is the precipitous increase in imports of canned mushrooms, which occurred following the President's announcement on May 17, 1976, that he had accepted the Commission's recommendation regarding adjustment assistance. Total imports in June jumped to 10.4 million pounds, or nearly double the amount entered during the preceding

month. During July and August, 11.9 million pounds and 10.4 million pounds, respectively, were imported, twice the amount entered during the corresponding month in 1975. Thus far in marketing year 1976/77 (July-October) imports have amounted to 30 million pounds, 10.5 million pounds above the amount imported during the corresponding period in the previous marketing year. Under these circumstances, importers should not find it surprising either that a new investigation was instituted or that the Commission has again made an affirmative determination. The President's decision not to impose import restrictions should not be an occasion for importers to increase imports with impunity. The temporary increase in July and August has been followed by assurances by officials of the Governments of the Republic of China (Taiwan) and the Republic of Korea that exports to the United States in the 1976/77 marketing year will be roughly equivalent to those for the 1976/76 marketing year.

#### Remedy

After reviewing all the information developed during the course of this investigation, I again make the recommendation which I made in the last investigation: I find that adjustment assistance under chapters 2, 3, and 4 of title II of the Trade Act can effectively remedy the injury which I have found to exist, and therefore I recommend the provision of such assistance.



## Views of Chairman Daniel Minchew

On September 20, 1976, the United States International Trade Commission (hereinafter referred to as the Commission) received a letter from the Special Representative for Trade Negotiations requesting an expedited investigation, pursuant to section 201(b)(1) of the Trade Act of 1974, to determine whether mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. Having determined pursuant to section 201(e) of the Trade Act, good cause to exist for a reinvestigation within 1 year since the Commission made its report to the President on its previous investigation on mushrooms, the Commission instituted the requested investigation on October 5, 1976.

Before making an affirmative determination under section 201(b)(1), the Commission must find that all three of the following criteria are met:

- (1) That an article is being imported into the United States in increased quantities (the increased imports may be actual or relative to domestic production);
- (2) That a domestic industry producing an article like or directly competitive with the imported article is being seriously injured or threatened with serious injury; and
- (3) That such increased imports of an article are a substantial cause of the serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

Determination

In the previous investigation on mushrooms completed on March 17, 1976 (No. TA-201-10), I determined that the criteria by which an industry must be judged eligible for relief from imports, as set forth in section 201(b)(1) of the Trade Act, were not met. Specifically, I found that the third criterion under section 201(b)(1), i.e., that of "substantial cause," was not met. 1/

In the present investigation, as a result of evidence obtained by the Commission, I have found that competitive conditions in the mushroom industry have not changed sufficiently since investigation No. TA-201-10 to justify a change in the finding I reached in the earlier case. Thus, I have determined in this investigation that the third criterion under section 201(b)(1) has not been met. The following discussion, therefore, is limited principally to the third criterion.

Domestic industry

The domestic industry consists of the industry or industries producing an article which is "like or directly competitive with" the imported article--in this case, mushrooms, except fresh or dried, listed under item 144.20 of the TSUS. I have again concluded that all mushrooms, whether preserved or fresh, are "like or directly competitive" with the items under investigation, and that the domestic producers of such articles must be

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1/ Mushrooms: Report to the President on Investigation No. TA-201-10  
. . . , USITC Publication 761, 1976, p. 30.

considered the industry or industries to which the statutory criteria are to be applied.

In the present case, as in the previous investigation, it would be possible to define the industry either as one industry consisting of all fresh-mushroom-production and mushroom-processing facilities, or as two industries--the fresh-mushroom-production facilities on the one hand and the mushroom-processing facilities on the other. As I have determined that the "substantial cause" criterion has not been met, and since the various products are so closely related and interchangeable, I have concluded that no specific definition of the domestic industry is necessary. Considering either of the domestic industries would lead me to the same conclusion: increased imports are not a "substantial cause" or any "serious injury" which the domestic industry may have suffered.

#### Substantial cause

Section 201(b)(4) of the Trade Act defines "substantial cause" as a "cause which is important and not less than any other cause." In addressing the question of substantial cause, the House Ways and Means Committee stated:

The Committee intends that a dual test be met-- imports must constitute an important cause and be no less important than any other single cause. For example, if imports were just one of many factors of equal weight, imports would meet the test of being "not less than any other cause" but it would be unlikely that any of the causes would be deemed an "important" cause. If there were any other cause more important than imports, then the second test of being "not less than any other cause" would not be met. On the other hand, if imports were one of two factors of equal weight and there were no other factors, both tests would be met. 1/

The Senate Finance Committee stated further:

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1/ Trade Reform Act of 1973: Report of the Committee on Ways and Means . . . ,  
H. Rept. No. 93-571 (93d Cong., 1st sess.), 1973, pp. 46-47.

The Committee recognizes that "weighing" causes in a dynamic economy is not always possible. It is not intended that a mathematical test be applied by the Commission. The Commissioners will have to assure themselves that imports represent a substantial cause or threat of injury, and not just one of a multitude of equal causes or threats of injury. 1/

In determining "substantial cause" it is necessary, therefore, to consider two tests. First, a cause must be important, and second, a cause must be not less than any other cause.

I have concluded as a result of evidence obtained by the Commission in the present investigation that there were several factors which may have led to any decline that the domestic industry may have suffered. I consider three of these factors, moreover, to be important: (a) increased imports; (b) the increasing diversion of fresh-mushroom production to the fresh market and to processors other than canners; and (c) the discovery of Clostridium botulinum and/or botulinal toxin (botulism) in canned mushrooms in 1973. Thus, the first test of substantial cause is satisfied.

However, despite the fact that I consider increased imports to be an important cause of injury to the domestic industry, I am unable to say that these increased imports are not less important than the other important causes--diversion of the raw product or botulism.

A major problem faced by domestic canners is the diversion of fresh mushrooms to the fresh market and to processors other than canners. Evidence presented in this investigation indicates that such diversion is a more important factor than increased imports.

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1/ Trade Reform Act of 1974: Report of the Committee on Finance . . . , S. Rept. No. 93-1298 (93d Cong., 2d sess.), 1974, pp. 120-121.

During the last 5 marketing years, an increasing amount and share of U.S. fresh-mushroom production has been sold on the fresh market. In 1971/72, 66 million pounds of fresh mushrooms were sold on the fresh market--29 percent of all U.S. fresh-mushroom production: in 1975/76, the fresh market accounted for 142 million pounds of U.S. fresh-mushroom production--46 percent of the total U.S. fresh-mushroom output.

A rising fresh-mushroom price structure has accounted for much of the diversion of the fresh product away from canners and toward the fresh market and processors other than canners. This has been especially true in the last year or so. The average price for fresh mushrooms increased from 35 cents per pound in 1974/75 to 69 cents per pound by October 1976. The mushroom canner has been caught between the rapidly escalating cost of raw material and the uncertain market price for the finished product--canned mushrooms.

Canners traditionally suffered reduced profit margins in periods of high fresh-mushroom prices, which are usually highly profitable years for mushroom growers. This is especially the case for canners completely separated from growing operations. Such canners cannot use the profits obtained from fresh-mushroom production to carry over the canning operation in times of high raw-material cost.

In addition to fresh mushrooms being diverted to the fresh market, large quantities have been sold in recent years to processors other than canners, such as soup manufacturers. These quantities, which totaled about 28 million pounds in 1971/72, reached 64 million pounds in 1975/76.

I have concluded again in this investigation that botulism food poisoning (which was discovered in early 1973 in the canned mushrooms of two domestic processors and resulted in recalls by the U.S. Food and Drug Administration which lasted until December 1974, eventually affecting 10 firms, 8 domestic and 2 foreign) is a more important factor than increased imports in any "serious injury" that the domestic industry may have suffered.

Despite the increase in consumption of canned mushrooms since 1973/74, the marketing year most closely associated with the "botulism scare," the decline in consumption in that year, along with the expenses associated with the recalls in the period, so weakened the financial condition of at least the canning segment of the domestic industry that U.S. canners could not effectively supply the increasing demand for the canned product in the years subsequent to 1973/74. Moreover, the industry's greater financial burden which grew out of the "botulism scare" resulted in the discontinuance of mushroom-canning operations by five firms which were associated with recalls--one since the completion of the last investigation (No. TA-201-10). So, the effects of the increase in imports that has occurred since 1973/74 have been magnified because of the weakened condition of the domestic industry, a result of previous losses to its capital structure.

After considering all the information obtained by the Commission in the present investigation, I feel that I must conclude that increased imports are a less important cause of any "serious injury" which the domestic industry may have suffered than is the diversion of the raw product or botulism. I conclude, therefore, that the "substantial cause" criterion has not been met.

Additional Views of Chairman Daniel Minchew with regard to  
recommendations of remedy

I believe that the statute anticipates in all cases of affirmative findings two separate, distinct votes, and, further, that each Commissioner has a duty to participate in the recommendation process regardless of the Commissioner's individual vote on the question of serious injury.

I think it is important to examine the statute and supporting materials on this important question. Section 201(d)(1) refers to the recommendation by the "Commission" without any reference to a majority or to those Commissioners voting in the affirmative. I believe the Congress intended separate votes by the Commission: First, the Commission was to determine whether the provisions of 201(b) are met so that import relief could be awarded, and, second, the "Commission" is to decide on a recommendation to be transmitted to the President, as provided in section 201(d).

Section 332(g) of the Tariff Act of 1930, as amended by section 173 of the Trade Act of 1974, provides:

Reports to President and Congress.--The Commission shall put at the disposal of the President of the United States, the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate, whenever requested, all information at its command, and shall make such investigations and reports as may be requested by the President or by either of said committees or by either branch of the Congress, and shall report to Congress on the first Monday of December of each year hereafter a statement of the methods adopted and all expenses incurred, a summary of all reports made during the year, and a list of all votes taken by the commissioners voting in the affirmative and the negative on each vote and those commissioners not voting on each vote and the reasons for not voting. (Emphasis supplied.)

The purpose of the final phrase, added by the Trade Act of 1974, as outlined in the Senate Finance Committee Report at page 117 is as follows:

. . . any vote which results in public notice of an action, or any vote on an investigation of the Commission or which results in a report being issued, would be included in the report. It is hoped that this amendment will encourage participation by all Commissioners in the important business of the Commission. (Emphasis supplied.)

I think there can be little doubt that a recommendation to the President would be considered "important business of the Commission."

Equal in importance to the authority cited above, which, to me, represents an affirmative duty by Commissioners to participate in the recommendation, is the fact that nowhere in the act do we see any prohibition of an action by a Commissioner to participate in important Commission business.

A separate policy issue presents itself as to whether a Commissioner should participate in the development of a Commission recommendation if the Commission has voted negatively in the determination. I am of the opinion that a Commissioner should participate actively in the development of the recommendation.

If a Commissioner has voted negatively (which he may have done for several reasons under the statute) but the Commission has made an affirmative finding, the Commissioner must then separate the views on an affirmative or negative finding and set to the task of making a recommendation which would best redress the injury, as determined by the Commission to the domestic industry. I am not persuaded by the argument that a Commissioner cannot possibly separate the two. That is one of the responsibilities of a Commissioner. Indeed, it is possible that a Commissioner



who voted negatively on the determination has sympathy with the domestic industry. It is possible that a Commissioner could find that there are no increased imports, an evaluation which necessitates a negative finding, even though the Commissioner feels the domestic industry has been injured.

The Senate Finance Committee Report at page 123 focuses on votes by Commissioners with regard to remedy (recommendation) when it states:

. . . the Committee feels strongly that the Commission ought to reach a clear, definitive majority view on the nature of the remedy that is most suitable to the injury found.

It is hoped that this stated intent of the Congress will go a good way toward eliminating any attempt by those who might have voted in the minority to thwart the will of the majority who may have determined affirmatively.

The Commission must draw upon the diverse backgrounds of all members of the Commission in order to assure that all views are properly presented. It is in this way that the Commission was intended to function by those who established it as a Commission instead of a judicial body.

Since I feel that, in instances of affirmative determinations I must participate in the formulation of a recommendation, regardless of how I voted in the determination, I have concluded that, although I have made a negative determination in this case, I may give my view on a recommendation, because, by Presidential action, this evenly divided determination could become an affirmative finding.

#### Conclusion

I have determined that the import relief described in the Commission's determination and finding is the appropriate remedy for the United States industry impacted by the imports of canned mushrooms.



## Introduction

On September 20, 1976, the United States International Trade Commission (hereinafter referred to as the Commission) received a letter from the Special Representative for Trade Negotiations requesting an expedited investigation, pursuant to section 201(b)(1) of the Trade Act of 1974, to determine whether mushrooms, prepared or preserved, except fresh or dried, provided for in item 144.20 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. Having determined pursuant to section 201(e) of the Trade Act, good cause to exist for a reinvestigation within 1 year since the Commission made its report to the President of its previous investigation on mushrooms, the Commission instituted the requested investigation on October 5, 1976. Notice of the investigation, including the time and place of the hearing and a statement of the Commission's intention to expedite its investigation and issue its report as soon as possible, was published in the Federal Register on October 12, 1976 (41 F.R. 44756). A public hearing in connection with this investigation was held on November 11 and 12, 1976, in the Commission hearing room in Washington, D.C.

Seven bills (one in the Senate and six in the House) and one concurrent resolution, all involving imports of mushrooms, were introduced during the last session of Congress. The bills were S. 3704., H.R. 14881, 14889, 15019, 15198, 15379, and 15459; the concurrent resolution was H. Con. Res. 733. The bills were all identical and provided for the imposition

of quantitative restrictions on imports of mushrooms from the Republic of China (Taiwan) and the Republic of Korea (South Korea). The concurrent resolution was a "sense of the Congress" expression that (1) the President should negotiate with foreign countries supplying mushrooms to the United States in an effort to obtain agreements for quantitative restrictions thereon, and (2) if such agreements are not obtained within 90 days after negotiations begin, the Commission should determine, for purposes of section 201(e) of the Trade Act of 1974, that good cause exists for a new investigation under section 201(b)(1) thereof. Congress adjourned without acting on any of the bills or on the concurrent resolution.

In 1964, domestic canners of mushrooms filed a petition with the U.S. Tariff Commission (the former name of the U.S. International Trade Commission) for an "industry" investigation under section 301(b) of the Trade Expansion Act of 1962. In the investigation, the Commission found that canned mushrooms were being imported in increased quantities within the meaning of section 301(b) of the act, but that such increased imports were not attributable in major part to trade-agreement concessions. 1/ In 1966, the canners requested the President to enter into negotiations under section 204 of the Agricultural Act of 1956 with Taiwan, the principal supplier of imported canned mushrooms, for the purpose of limiting that country's

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1/ The Commission's report, Mushrooms Prepared or Preserved . . ., TC Publication 148, was sent to the President on Jan. 27, 1965.

exports to the United States. 1/ Following a review by an interagency task force, the request for negotiations was denied; the primary reason given for the denial was that canners' profits were above the level that prevailed before imports assumed a significant role. 2/

In 1968 Taiwan took steps to place a limit on its shipments of canned mushrooms to the United States during that year. The export limitation imposed by Taiwan permitted some growth in U.S. imports from Taiwan over those in 1967 but amounted to a substantial reduction in Taiwan's initial export target for the U.S. market. The limitation was operative only in 1968.

In 1972 the domestic canners again sought Presidential approval for the initiation, under section 204 of the Agricultural Act of 1956, of discussions with the Governments of Taiwan and South Korea for the purpose of obtaining agreements to limit their exports of canned mushrooms to the United States. Thereupon the

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1/ Sec. 204 of the Agricultural Act of 1956 authorizes the President to negotiate with representatives of foreign governments to obtain agreements limiting the export from those countries and the importation into the United States of any agricultural commodity or product manufactured therefrom. The President is authorized to issue regulations governing the importation of these products. If a multinational agreement has been concluded under this authority among countries accounting for a significant part of world trade in the articles with respect to which the agreement was concluded, the President may also issue regulations governing the importation of the same articles which are the products of countries not party to the agreement.

2/ From Canned Mushrooms: A Situation Report, issued by the U.S. Department of Agriculture, Foreign Agricultural Service, Fruit and Vegetable Division, on July 5, 1972.

President requested the Tariff Commission, under section 332 of the Tariff Act of 1930, to conduct an investigation on the competitive conditions in the United States between domestically produced and imported fresh and processed mushrooms. 1/ The report on this investigation was reviewed by the Interagency Trade Staff Committee, which was to recommend a course of action. Subsequently, discussions were held with Taiwan and South Korea concerning unilateral restraints on their mushroom exports to the United States, but no agreements resulted from the discussions.

On September 17, 1975, the Mushroom Cannery Committee of the Pennsylvania Food Processors Association, York, Pa., and the Mushroom Processors Tariff Committee, Washington, D.C., filed a petition with the U.S. International Trade Commission pursuant to section 201 of the Trade Act for relief from imports of mushrooms. Upon completion of its investigation (No. TA-201-10), the Commission determined that mushrooms, prepared or preserved, except fresh or dried, provided for in TSUS item 144.20, were being imported in such increased quantities as to be a substantial cause of serious injury or the threat thereof to the domestic industry producing articles like or directly competitive with the imported articles. In order to effectively remedy the serious injury or threat thereof found by the Commission to exist, three Commissioners recommended provision of adjustment assistance and one Commissioner recommended establishment of a tariff quota. 2/

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1/ The Commission's report, Mushrooms . . ., TC Publication 580, was sent to the President on May 30, 1973.

2/ Commissioner Leonard, Minchew, and Ablondi recommended adjustment assistance; Commissioner Parker recommended a tariff quota. The Commission's report, Mushrooms . . ., USITC Publication 761, was sent to the President on Mar. 17, 1976.

Description and Uses 1/

The term "mushroom" as used herein refers only to the edible portion (the fruiting body) of the mushroom fungi. Mushrooms are marketed either fresh, dried, frozen, or canned. Canned mushrooms, frozen mushrooms, and, to a lesser degree, dried mushrooms can be used interchangeably with fresh mushrooms, although for certain uses a specific form of mushrooms may be preferred.

Fresh mushrooms are perishable, and, if earmarked for consumption in the fresh state, must be marketed within a few days after harvesting even though properly refrigerated. Substantial quantities are also preserved during the harvest period, largely by canning, for consumption on a year-round basis. Virtually all of the prepared or preserved mushrooms are canned. Only a relatively small part of the domestic mushroom crop is marketed dried or frozen.

Canned mushrooms are usually packed in a light brine solution; however, small quantities are also preserved in vinegar (pickled mushrooms), wine (mushrooms in wine), and oil (marinated mushrooms). Most of the imported canned mushrooms are of the same species as those grown in the United States and are comparable in flavor and appearance to them. Canned mushrooms are packed in three main styles: stems and pieces (including random-sliced mushrooms), sliced mushrooms, and whole mushrooms (including buttons). The containers in which they are sold range in size from 2 to 68 ounces (drained weight). Containers holding more than 9 ounces of mushrooms (drained weight) are generally referred to as institutional sizes.

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1/ For more information relating to description and uses, refer to the Commission report Mushrooms . . ., USITC Publication 761, March 1976.

Recent public testimony has identified four varieties of mushrooms as commonly marketed in the United States: white, off white, creme, and brown. 1/ Traditionally, in the eastern two-thirds of the United States, the white mushroom was sold to the fresh market, the creme mushroom was grown primarily for processing, and little of the off-white variety was produced because of difficulties in growing. The brown mushroom has long been the premium fresh-market mushroom on the West Coast of the United States. Preferences concerning mushroom varieties may be changing in the eastern part of the country, however, for increasing supplies of creme or off-white mushrooms are being sold on the fresh market in that region. 2/

#### U.S. Growers and Processors

Mushrooms were first commercially grown in the United States in the latter part of the 19th century. New York City and nearby Long Island constituted the first growing center. However, by 1890, the Kennett Square area, 3/ located in close proximity to large markets, had begun to develop into a major center of mushroom production. In addition to being situated near several large metropolitan centers where fresh mushrooms were in demand, the growers in the Kennett Square area could also obtain, from nearby stables, the horse manure needed to facilitate mushroom growing. Modern mushroom-growing technology uses either well-composted horse manure or synthetic compost or mixtures of the two to produce mushrooms commercially.

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1/ Prepared statement of Harry Roberts for the Commission's hearing on mushrooms, investigation No. TA-201-17, p.1.

2/ The Packer, Saturday, Nov. 6, 1976, p. 23a, and the transcript of the Commission's hearing on mushrooms, investigation No. TA-201-17, pp. 244, 245.

3/ The Kennett Square area is composed of southeastern Pennsylvania and nearby portions of Delaware and Maryland.



### Growers

In 1976 mushrooms were commercially grown by about 500 growers--about 30 percent fewer than a decade earlier. Although the number of growers has declined, the average size of operations per grower has expanded, and these operations have become more productive. Some large-scale growing operations have been established in recent years, including several by multiproduct food processors. During marketing years 1970/71 to 1975/76, the square feet of growing area devoted to mushroom production increased about 32 percent. Table 1 shows the growing area devoted to mushroom production and per-unit yields in recent years. In 1975/76, growers increased their square feet of growing area by about 4 percent over the area harvested in the previous marketing year.

Table 1.--Mushrooms: U.S. area harvested and yield per square foot, marketing years 1970/71 to 1975/76

Marketing year (July 1-June 30)	:	Area	:	Yield
	:	<u>Million square</u>	:	<u>Pounds per</u>
	:	<u>feet</u>	:	<u>square feet</u>
1970/71-----	:	87	:	2.36
1971/72-----	:	94	:	2.47
1972/73-----	:	102	:	2.48
1973/74-----	:	108	:	2.60
1974/75-----	:	111	:	2.70
1975/76-----	:	115	:	2.70
	:		:	

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Commercial production is concentrated in Pennsylvania although mushrooms are also grown near many of the large U.S. population centers. Percentage distribution of the area in production

in principal producing States in the marketing year 1975/76 was as follows: Pennsylvania, 55 percent; New York, 3 percent; Delaware, 2 percent; Ohio, 2 percent; and all other States, 38 percent. 1/

Most U.S. mushrooms are grown during the period from October through May, when climatic conditions favor growth. Most growers raise two crops a year, one in the fall and another in the spring. Some growers also produce a mushroom crop in the summer months through the use of air conditioning. From 1974/75 to 1975/76, the square footage of mushroom-growing area harvested at times other than the normal fall and spring harvest periods 2/ increased by 9 percent.

A typical small mushroom farm consists of a series of "double" mushroom houses, an open composting yard, and storage areas. A typical "double" is of cement block construction and is about 60 feet long and 38 feet wide. Mushroom beds are 5 to 6 feet wide with an aisle on each side and at the ends for picking, watering, and crop protection. A house usually has six or seven tiers of beds.

A recent innovation in the growing of mushrooms has been the tray system, which involves moving a tray holding the growing medium from one controlled environment to another during the period of early growth. With the tray system, the compost is placed directly into movable boxes which are transported by a tractor with a forklift or by other means to the various growing areas. The tray system allows greater use of mechanization and of improved composting methods

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1/ The U.S. Department of Agriculture reported that California, Florida, and Texas also produce large amounts of mushrooms, but because the number of producers in each State is small, the Department of Agriculture does not publicize their production.

2/ One mushroom crop is called a fill, which has approximately a 100-day cycle from initial preparation of the substrata to the final picking.

resulting in increased labor efficiency. Tray operations tend to be considerably larger than those with fixed beds. This method has led to larger houses and greater capital investments in equipment. However, because of the high cost of installing the tray system, industry sources indicate that about 25 percent of the output is presently grown by this technique.

### Canners

In the 1975/76 marketing year mushrooms were canned by 29 firms, compared with 35 firms in 1972 and 34 firms in 1964. About half of the canners are in Pennsylvania, most of the other firms are in California, Ohio, Michigan, and Washington. Two of the firms are grower-owned cooperatives. In the 1975/76 marketing year, five of the canners each sold more than 3 million pounds of domestically canned mushrooms.

For the most part, mushroom-canning operations are similar to the operations of other small canners in the United States. However, unlike most canners, which operate during only a few weeks or months of the year, mushroom canners generally operate throughout much, if not all, of the year, with the principal canning season extending from October to the following May. Most mushroom canners are situated in areas economically unsuited for growing other canning crops and accordingly process few, if any, other products.

During the marketing years 1970/71 to 1975/76, about half the domestic canners grew part or all of their fresh mushroom requirements. The production of these canners averaged about a fourth of the total U.S. output of fresh mushrooms and about a third of the sales of

domestic canned mushrooms during these years. Some canners may ship part of their fresh supplies (either grown or purchased by them) to the fresh market at times when their canning operations have sufficient supplies or when returns from the sales of fresh produce appear to be more favorable than returns from their canning operations. Five domestic canners imported canned mushrooms at one time or another during 1970/71 to 1975/76.

Public testimony 1/ and trade source information indicate that nine domestic mushroom canners have ceased mushroom-canning operations since the 1960's. Of these nine processors, five suffered U.S. Food and Drug Administration (FDA) recalls and later went out of business.

Information obtained during this investigation indicates that two of the nine mushroom canners have ceased mushroom canning operations since the completion of the last investigation (TA-201-10). One of the two processors had suffered FDA recalls. 2/

#### Freezers

In recent years, about 1 percent of the domestically produced prepared or preserved mushrooms, except dried, were frozen. Only a few firms are believed to produce frozen mushrooms currently, and most of these firms also produce canned mushrooms. Generally, the firms' freezing operations are small in relation to their canning operations. The freezers accounting for the bulk of domestic output are located in Pennsylvania and Michigan.

#### Driers

In recent years, freeze-drying has been the only method used to dry mushrooms in the United States. Two firms, one in Pennsylvania

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1/ Transcript of the Commission's hearing on mushrooms, investigation No. TA-201-10, p. 91.

2/ Transcript of the Commission's hearing on mushrooms, investigation No. TA-201-17, p. 95.

and one in New York State, are believed to be the only major U.S. producers of freeze-dried mushrooms--whereas there were eight freeze-drying firms in 1963. Knowledgeable sources report that in the last several years these two firms have produced about \* \* \* pounds of freeze-dried mushrooms annually--about the same amount as produced by the eight firms that were freeze-drying in 1963.

#### Channels of Distribution

U.S. mushroom growers still sell the principal part of their output to processors, with the remainder going to the fresh market. However, the proportion of such output sold to processors is much less than formerly. Generally, the better quality mushrooms are offered first to the fresh market. 1/

#### Fresh mushrooms

Buyers are usually wholesalers at fresh-market fruit and vegetable distribution centers and purchase mushrooms directly from the growers. Most growers sell their mushrooms in wooden baskets holding 3 pounds of mushrooms and in plastic containers holding 10 pounds of mushrooms. Buyers repackage some of the mushrooms; they sell the mushrooms to retail grocery outlets in cardboard cartons holding either 1 or 2 pounds and in wooden baskets holding 3 pounds. Several large buyers ship fresh mushrooms by air freight to distant U.S. and Canadian markets. Some large growers that package their own mushrooms and ship directly to wholesalers or retail outlets may also buy mushrooms from other growers. Buyers for processors also purchase

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1/ For more information relating to channels of distribution, refer to the U.S. International Trade Commission report Mushrooms . . ., USITC Publication 761, March 1976.

directly from growers; they buy the mushrooms that the growers could not sell or did not offer to sell to the fresh market.

#### Canned mushrooms

Three groups of primary suppliers market canned mushrooms in the United States: (1) Canners, which market only the domestically produced product; (2) canner-importers, which market both the domestic and the foreign products; and (3) importers, which market only the foreign-produced product. In 1975/76, 46 percent of the canned mushrooms consumed in the United States were marketed to retail outlets (including chainstores), 48 percent went to institutional users, 3 percent went to food reprocessors (e.g., manufacturers of frozen pizzas and TV dinners), 2 percent went to Government outlets, and 1 percent went to all other outlets.

In 1975/76, both canners and importers sold the largest share of their product directly to institutional outlets. The canner-importers sold virtually all of their imported canned mushrooms directly to retail outlets such as chainstores, but they sold about half of their domestically produced product to institutional outlets; other market outlets took only a small share of their canned product. Table 2 shows the percentage distribution of sales by canners and importers in 1975/76:

Table 2.--Mushrooms, canned: Percentage distribution of sales by U.S. canners and importers, by type of outlet, marketing year 1975/76

Outlet	: Canners, : excluding : canner- : importers	Canner-importers		Importers	Total
		U.S. product	Imported product		
Retail outlets (in cluding chain- stores)-----	38	50	99	28	46
Institutional outlets-----	49	46	1	68	48
Food reprocessors--	8	-	-	1	3
Government out- lets-----	4	4	-	3	2
All other-----	1	-	-	-	1
Total-----	100	100	100	100	100

Source: Compiled from data submitted to the U.S. International Trade Commission by domestic canners and importers.

Historically, most of the domestic product has been sold in retail-size containers, whereas the bulk of the imported product has been in institutional-size containers. In recent years, however, this trend has been changing. In 1975/76, 49 percent of domestically canned mushrooms were sold in retail-size containers, while 51 percent were sold in institutional-size containers. During the same marketing year, 47 percent of the imported product was sold in retail-size containers, while 53 percent was sold in institutional-size containers, as is shown in table 3, which follows:

Table 3.--Mushrooms, canned: Percentage distribution of sales of the U.S. and the imported product, by container size, marketing years 1970/71 to 1975/76

Marketing year (July 1- June 30)	U.S. product			Imported product		
	Retail size	In- stitu- tional size	Total	Retail size	In- stitu- tional size	Total
1970/71-----	55	45	100	41	59	100
1971/72-----	60	40	100	38	62	100
1972/73-----	57	43	100	53	47	100
1973/74-----	60	40	100	49	51	100
1974/75-----	54	46	100	46	54	100
1975/76-----	49	51	100	47	53	100

Source: Compiled from data submitted to the U.S. International Trade Commission by domestic canners and importers.

#### U.S. Importers

##### Fresh mushrooms

During the 1974/75 marketing year, no firm imported fresh mushrooms, and only a very small amount of this product was imported in 1975/76. This commodity is extremely perishable in the fresh condition and has been insignificant or nonexistent in U.S. imports.

##### Canned mushrooms

About 30 concerns import significant quantities of canned mushrooms into the United States; data collected by the Commission indicate that 5 domestic mushroom-canning concerns were among these importers in 1975/76. A preponderance of the aforementioned 30 importers market canned mushrooms processed in Taiwan, and some also import from South Korea.



Several of these firms are highly diversified and trade in a wide range of products. Most of the others specialize in the importation of foods and related commodities. About half of the 30 importers have their principal U.S. offices in New York City.

In addition to the 30 importers cited above, there are several dozen firms that import a variety of groceries associated with oriental cuisine. Individually, they import canned mushrooms in small quantities, but, considered as a group, they account for 10 to 15 percent of the U.S. annual imports of canned mushrooms from Taiwan. For the most part, these small importers are located in New York City, San Francisco, Los Angeles, and Seattle.

#### U.S. Tariff Treatment

Imported mushrooms are classified for tariff purposes under part 8D of schedule 1 of the TSUS. The rates of duty currently applicable to imports from countries other than those designated as being under Communist control 1/ and the share of U.S. total mushroom imports that entered under each TSUS item in marketing year 1975/76 are shown in table 4, which follows:

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1/ Products of most Communist-controlled countries are dutiable at the statutory rates shown in table 5.

Mushrooms are not among the articles eligible for duty-free entry under the Generalized System of Preferences.

Table 4.--Mushrooms: U.S. rates of duty on mushroom imports and percent of total mushroom imports, by TSUS items, marketing year 1975/76

TSUS No.	Commodity	Rate of duty	Percent of total--	
			Quantity(fresh- weight basis)	Value
	Mushrooms:			
144.10	Fresh-----	5¢ per lb + 25% ad val.	1/	1/
144.12	Dried-----	3.2¢ per lb + 10% ad val.	12	9
144.20	Otherwise pre- pared or pre- served.	3.2¢ per lb on drained weight + 10% ad val.	88	91

1/ Less than 0.5 percent.

Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce.

These rates reflect concessions granted by the United States in the General Agreement on Tariffs and Trade. The statutory rate of duty on "otherwise prepared or preserved" mushrooms (e.g., canned mushrooms), 10 cents per pound on the drained weight plus 45 percent ad valorem, has been modified four times in trade agreements--three times in negotiations with France and once (two stages) in negotiations with the European Community (EC) (see table 5). The most recent of these reductions became effective in July 1963. The ad valorem equivalent of the present rate averaged about 14 percent based on the quantity and value of imports from all countries in 1975/76, whereas that of the 1930 rate averaged about 57 percent based on the quantity and value of all mushroom imports in 1975/76 (see table 6).

Table 5.--Mushrooms, fresh, dried, or otherwise prepared or preserved:  
U.S. rates of duty, June 18, 1930, to December 1976

TSUS No.	Description	Statutory rate effective June 18, 1930	Trade-agreement modification	
			Rate	Effective date
	Mushrooms:			
144.10	Fresh-----	10¢ per lb + 45% ad val.	5¢ per lb + 25% ad val.	January 1948.
144.12	Dried-----	10¢ per lb + 45% ad val.	5¢ per lb + 25% ad val.	September 1955.
			4.5¢ per lb + 22.5% ad val.	July 1962.
			4¢ per lb + 20% ad val.	July 1963.
			3.2¢ per lb + 18% ad val.	January 1968.
			3.2¢ per lb + 16% ad val.	January 1969.
			3.2¢ per lb + 14% ad val.	January 1970.
			3.2¢ per lb + 12% ad val.	January 1971.
			3.2¢ per lb + 10% ad val.	January 1972.
144.20	Otherwise pre- pared or pre- served.	10¢ per lb + 45% ad val. <u>1/</u>	8¢ per lb <u>1/</u> + 25% ad val.	June 1936.
			5¢ per lb <u>1/</u> + 15% ad val.	January 1948.
			4¢ per lb <u>1/</u> + 12.5% ad val.	June 1951.
			3.6¢ per lb <u>1/</u> + 11% ad val.	July 1962.
			3.2¢ per lb <u>1/</u> + 10% ad val.	July 1963.

1/ Drained weight.

Table 6.--Mushrooms, canned: U.S. rates of duty and imports for consumption, calendar years 1930-59, marketing years 1959/60 to 1975/76

Period	Rate of duty	Average ad valorem equivalent	Imports	
			Quantity/ (drained weight)	Value
	Cents per pound; percent ad valorem	Percent	1,000 pounds	1,000 dollars
1930:				
Jan. 1-June 17-----	45 %	45.0	3,834	1,016
June 18-Dec. 31-----	10¢ per lb + 45%	80.6	1,143	321
Total 1930-----			4,977	1,337
1931-----	10¢ per lb + 45%	81.4	2,773	741
1932-----	do-----	86.5	1,982	478
1933-----	do-----	84.8	1,417	356
1934-----	do-----	77.4	820	253
1935-----	do-----	76.6	560	177
1936:				
Jan. 1-June 14-----	do-----	76.7	146	46
June 15-Dec. 31-----	8¢ per lb + 25%	50.5	316	99
Total 1936-----			462	145
1937-----	8¢ per lb + 25%	53.7	999	278
1938-----	do-----	59.6	890	206
1939-----	do-----	63.5	890	185
1940-----	do-----	57.9	419	102
1941-----	do-----	50.3	38	12
1942-----	do-----	49.0	9	3
1943-----	do-----	39.9	1/	2/
1944-----	do-----	36.4	1/	2/
1945-----	do-----	36.5	23	16
1946-----	do-----	32.3	11	12
1947-----	do-----	30.7	5	7
1948-----	5¢ per lb + 15%	23.5	159	94
1949-----	do-----	23.4	380	225
1950-----	do-----	23.4	337	200
1951:				
Jan. 1-June 5-----	do-----	22.9	156	99
June 6- Dec. 31-----	4¢ per lb + 12-1/2%	19.5	277	158
Total 1951-----			433	257
1952-----	4¢ per lb + 12-1/2%	19.2	955	570
1953-----	do-----	19.7	1,718	959
1954-----	do-----	20.0	2,572	1,378
1955-----	do-----	19.9	2,039	1,105
1956-----	do-----	19.2	2,040	1,220
1957-----	do-----	18.4	2,071	1,407
1958-----	do-----	18.9	2,501	1,567
1959-----	do-----	19.1	2,323	1,415
Marketing years (July 1- June 30):				
1959/60-----	do-----	18.8	2,237	1,430
1960/61-----	do-----	18.8	3,265	2,087
1961/62-----	do-----	20.0	10,013	5,367
1962/63-----	3.6¢ per lb + 11%	17.8	10,499	5,520
1963/64-----	3.2¢ per lb + 10%	16.2	13,555	6,949
1964/65-----	do-----	15.9	10,409	5,624
1965/66-----	do-----	15.8	13,658	7,482
1966/67-----	do-----	15.6	16,776	9,530
1967/68-----	do-----	15.6	22,009	12,514
1968/69-----	do-----	15.7	20,019	11,272
1969/70-----	do-----	15.6	27,427	15,731
1970/71-----	do-----	14.9	28,097	18,308
1971/72-----	do-----	14.8	40,072	26,927
1972/73-----	do-----	14.9	48,217	31,566
1973/74-----	do-----	14.8	45,515	30,141
1974/75-----	do-----	14.3	50,179	37,561
1975/76-----	do-----	14.0	57,351	46,221

1/ Less than 500 pounds.

2/ Less than \$500.

Source: Imports compiled from official statistics of the U.S. Department of Commerce.

The statutory rate on dried mushrooms, 10 cents per pound plus 4 percent ad valorem, has been modified three times in trade agreements--twice in negotiations with Japan and once in the Kennedy round. The statutory rate on fresh mushrooms, 10 cents per pound plus 45 percent ad valorem, has been modified once in an agreement with Canada. Prior to mid-1974, imports of frozen whole mushrooms that were not otherwise prepared or preserved were classified with fresh mushrooms in TSUS item 144.10. Since that time all frozen mushrooms have been classified in item 144.20 (otherwise prepared or preserved mushrooms). The ad valorem equivalents of the present rates, on the basis of the quantity and value of 1975/76 imports from all countries, averaged about 11 percent for dried mushrooms and about 28 percent for fresh mushrooms; those of the 1930 rate, again using 1975/76 import data, averaged 48 percent for dried mushrooms and 50 percent for fresh mushrooms.

#### The Question of Increased Imports

##### U.S. imports

U.S. imports have consisted of canned, dried, frozen, and fresh mushrooms. During the 11 marketing years (July 1-June 30) 1965/66 to 1975/76, aggregate U.S. imports of mushrooms in all forms increased irregularly from 28 million to 100 million pounds (fresh-weight basis) (see table 7). In 1975/76, canned mushrooms accounted for about 88 percent of the total U.S. imports of mushrooms in terms of quantity (fresh-weight basis) and for about 91 percent in terms of value; dried mushrooms accounted for about 12 percent of the quantity and about 9 percent of the value (see table 4, p. A-16). Imports of fresh and frozen mushrooms are

Table 7.--Mushrooms: U.S. production, exports, imports for consumption, and apparent consumption, marketing years 1965/66 to 1975/76

(Quantities, fresh-weight basis)								
Marketing year (July 1-June 30)	Production	Exports <sup>1/</sup>	Imports			Apparent consump- tion <sup>3/</sup>	Ratio of imports to consumption	Ratio of imports to production
			Canned	Dried	Total <sup>2/</sup>			
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Percent	Percent
1965/66-----	156	4/	21	7	28	184	15	18
1966/67-----	165	4/	26	9	35	200	18	21
1967/68-----	181	4/	36	10	44	225	20	24
1968/69-----	189	4/	31	12	43	232	19	23
1969/70-----	194	4/	42	7	49	243	20	25
1970/71-----	207	2	43	10	53	258	20	26
1971/72-----	231	1	62	10	72	302	24	31
1972/73-----	254	1	74	12	86	339	25	34
1973/74-----	279	7	70	12	82	354	23	29
1974/75-----	299	5	77	12	89	383	23	30
1975/76-----	310	2	88	12	100	408	25	32

<sup>1/</sup> Compiled from official Canadian import statistics. U.S. exports of mushrooms to other countries are negligible.

<sup>2/</sup> Includes small quantities of frozen mushrooms in some years.

<sup>3/</sup> Production plus imports minus exports for marketing years 1970/71 through 1975/76.

<sup>4/</sup> Marketing year data are not available.

Source: Production data supplied by the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce; and exports compiled from official Canadian Government statistics.

believed to have composed less than 0.5 percent of total mushroom imports in 1975/76.

Canned mushrooms.--U.S. imports of canned mushrooms amounted to less than 5 million pounds (fresh-weight basis) during each of the years 1930 through 1959. Thereafter, imports on a fresh-weight basis, increased irregularly from 5 million pounds in marketing year 1960/61 to 88 million pounds in 1975/76.

Before the 1960's, France had been the principal supplier of U.S. imports of canned mushrooms. In the 1960's Taiwan and South Korea became the leading suppliers. Imports from Taiwan began in 1960/61, when imports of canned mushrooms from that country amounted to 488,000 pounds (drained-weight basis). Those from South Korea began in 1963/64, when they amounted to 5,000 pounds. In the marketing year 1975/76, Taiwan supplied 36.0 million of the 57.4 million pounds (drained-weight basis) of canned mushrooms imported from all supplying countries. In the same marketing year, South Korea was the second largest source, supplying 18.0 million pounds; Japan was the third, with 1.2 million pounds; and the Dominican Republic was the fourth, with 0.7 million pounds. Although Taiwan is still the most important source of U.S. imports of canned mushrooms, increases in imports during the 1970's have been at least as large from South Korea as from Taiwan, with a result that South Korea's share of the U.S. market is now approximately one-half that of Taiwan. Tables 8 and 9 show imports, by principal sources, on a drained-weight basis for recent marketing years and calendar years, respectively. Table 10 shows total U.S. monthly imports of canned mushrooms for marketing years 1970/71 to 1976/77. Tables 11 and 12 present monthly imports for the calendar years 1972-75 and January to October 1976 for Taiwan and South Korea, respectively. Table 13 shows the percentage

Table 8.--Mushrooms, canned: U.S. imports for consumption, by principal sources, marketing years 1970/71 to 1975/76, July-October 1975 and July-October 1976

Source	Marketing year (July 1-June 30)						July-Oct.--	
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1975	1976
Quantity (1,000 pounds, drained weight)								
Republic of China (Taiwan)-----	24,260	28,169	30,115	30,382	34,227	36,050	13,304	19,716
Republic of Korea--	717	7,444	12,643	10,307	11,090	18,009	5,297	8,514
Japan-----	966	789	1,447	1,254	1,709	1,227	301	859
Costa Rica-----	79	399	344	775	399	189	3	0
France-----	940	1,652	1,264	554	531	419	76	384
Dominican Republic--	0	0	166	795	675	661	250	37
Ecuador-----	439	387	603	390	658	0	0	0
All other-----	696	1,232	1,635	1,058	890	799	269	456
Total-----	28,097	40,072	48,217	45,515	50,179	57,351	19,500	29,966
Value (1,000 dollars)								
Republic of China (Taiwan)-----	15,293	18,318	19,513	20,387	26,444	30,211	10,797	18,404
Republic of Korea--	497	5,139	7,978	6,250	7,286	13,167	3,638	7,639
Japan-----	699	642	998	784	1,184	919	205	815
Costa Rica-----	55	295	267	601	347	144	1	0
France-----	922	1,416	1,182	579	667	590	103	531
Dominican Republic--	0	0	95	457	396	415	154	25
Ecuador-----	244	265	417	268	506	0	0	0
All other-----	598	852	1,116	812	781	785	251	421
Total-----	18,308	26,927	31,566	30,141	37,561	46,221	15,149	27,835
Unit value (per pound) 1/								
Republic of China (Taiwan)-----	\$0.63	\$0.65	\$0.65	\$0.67	\$0.77	\$0.84	\$0.81	\$0.93
Republic of Korea--	.69	.69	.63	.61	.66	.73	.69	.90
Japan-----	.72	.81	.69	.62	.69	.75	.68	.95
Costa Rica-----	.70	.74	.78	.78	.37	.78	.40	0
France-----	.98	.86	.94	1.04	1.26	1.41	1.35	1.38
Dominican Republic--	0	0	.57	.57	.59	.63	.61	.68
Ecuador-----	.56	.68	.69	.69	.77	0	0	0
All other-----	.86	.69	.68	.77	.82	.98	.93	.99
Average-----	.65	.67	.65	.66	.75	.81	.78	.93

1/ Calculated from the unrounded figures.

Source: Compiled from official statistics of the U.S. Department of Commerce.



Table 9.—Mushrooms, canned: U.S. imports for consumption, by principal sources, calendar years 1970-75, January-October 1975 and January-October 1976

Source	1970	1971	1972	1973	1974	1975	Jan.-Oct.--	
							1975	1976
Quantity (1,000 pounds, drained weight)								
Republic of China								
(Taiwan)-----	21,893	24,667	36,404	31,070	30,040	35,035	30,828	38,253
Republic of Korea--	313	2,660	9,946	14,010	7,771	13,995	12,943	20,174
Japan-----	782	972	1,236	1,101	1,281	1,709	1,632	1,704
Costa Rica-----	4	230	395	513	801	149	56	90
France-----	747	990	1,931	926	520	341	273	658
Dominican Republic--	0	0	29	417	899	689	541	301
Ecuador-----	396	390	462	663	337	457	457	0
All other-----	673	854	1,708	1,092	977	874	802	920
Total-----	24,808	30,763	52,111	49,792	42,626	53,249	47,532	62,100
Value (1,000 dollars)								
Republic of China								
(Taiwan)-----	12,684	16,027	23,809	20,050	22,018	28,245	24,522	34,097
Republic of Korea--	199	1,851	6,779	8,502	4,931	9,349	8,617	16,427
Japan-----	548	720	915	751	864	1,125	1,074	1,475
Costa Rica-----	2	166	300	398	647	125	53	71
France-----	680	952	1,644	921	630	444	361	934
Dominican Republic--	0	0	17	239	522	414	323	196
Ecuador-----	190	242	327	425	236	364	364	0
All other-----	543	629	1,131	861	779	759	689	884
Total-----	14,846	20,587	34,922	32,147	30,627	40,825	36,003	54,084
Unit value (per pound)								
Republic of China								
(Taiwan)-----	\$0.58	\$0.65	\$0.65	\$0.65	\$0.73	\$0.81	\$0.80	\$0.89
Republic of Korea--	.64	.70	.68	.61	.63	.67	.67	.81
Japan-----	.70	.74	.74	.68	.68	.66	.66	.87
Costa Rica-----	.50	.72	.76	.78	.81	.84	.95	.79
France-----	.91	.96	.85	.99	1.21	1.30	1.32	1.42
Dominican Republic--	0	0	.59	.57	.58	.60	.60	.65
Ecuador-----	.48	.62	.71	.64	.70	.80	.80	0
All other-----	.81	.74	.66	.78	.80	.87	.86	.96
Average-----	.60	.67	.67	.65	.72	.77	.76	.87

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 10.--Mushrooms, canned: U.S. imports for consumption, by months, marketing years 1970/71 to 1976/77

(In thousands of pounds, drained weight)							
Month	Marketing year (July 1-June 30)						
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77
July-----	1,439	2,586	5,252	4,110	2,944	6,025	11,939
August-----	2,119	1,525	5,423	4,234	2,815	5,035	10,477
September-----	1,907	2,738	4,063	3,679	4,869	4,714	5,505
October-----	1,440	1,705	3,074	4,908	3,868	3,726	2,046
November-----	1,068	1,039	2,467	4,491	3,582	2,584	1/
December-----	784	1,831	3,182	3,616	4,069	3,133	1/
January-----	773	1,724	3,568	4,233	5,768	4,903	1/
February-----	2,574	1,958	2,400	2,684	2,936	3,405	1/
March-----	3,573	5,443	4,243	2,251	4,312	5,351	1/
April-----	4,388	5,860	4,403	4,994	4,945	2,841	1/
May-----	3,869	8,005	5,296	3,613	5,363	5,243	1/
June-----	4,163	5,660	4,846	2,703	4,709	10,391	1/
Total 2/-----	28,097	40,072	48,217	45,515	50,179	57,351	1/

1/ Not available.

2/ Because of rounding, figures may not add to the totals shown.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 11.--Mushrooms, canned: U.S. imports for consumption, from the Republic of China (Taiwan), by months, 1972-75, and January-October 1976

Month	1972	1973	1974	1975	1976
Quantity (1,000 pounds, drained weight)					
January-----	806	1,743	2,557	3,609	1,192
February-----	799	933	1,299	1,034	1,547
March-----	3,563	2,214	1,398	3,027	3,847
April-----	4,199	2,790	3,712	3,373	2,219
May-----	6,491	3,280	2,487	3,574	3,686
June-----	4,457	3,066	1,886	2,906	6,046
Subtotal-----	20,315	14,026	13,339	17,523	18,537
July-----	3,838	2,465	2,058	3,262	7,308
August-----	3,842	2,432	1,932	3,560	7,376
September-----	2,811	2,288	3,871	3,820	3,427
October-----	1,718	3,563	3,093	2,663	1,605
November-----	1,711	3,394	2,915	2,118	1/
December-----	2,170	2,903	2,834	2,090	1/
Subtotal-----	16,090	17,045	16,703	17,513	1/
Total 2/-----	36,404	31,070	30,040	35,035	1/
Value (1,000 dollars)					
January-----	523	1,055	1,541	2,580	1,025
February-----	486	557	827	725	1,181
March-----	2,318	1,372	993	2,596	2,938
April-----	2,611	1,807	2,614	2,669	1,757
May-----	4,314	2,192	1,827	2,888	3,229
June-----	3,005	1,978	1,496	2,266	5,564
Subtotal-----	13,257	8,961	9,298	13,724	15,694
July-----	2,481	1,610	1,607	2,858	6,473
August-----	2,600	1,553	1,597	3,046	6,886
September-----	1,963	1,511	3,237	2,904	3,348
October-----	1,127	2,462	2,291	1,989	1,697
November-----	1,045	2,203	1,993	1,819	1/
December-----	1,337	1,750	1,993	1,901	1/
Subtotal-----	10,553	11,089	12,718	14,517	1/
Total 2/-----	23,809	20,050	22,018	28,242	1/

1/ Not available.

2/ Because of rounding, figures may not add to the totals shown.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 12.--Mushrooms, canned: U.S. imports for consumption, from the Republic of Korea, by months, 1972-75, and January-October 1976

Month	1972	1973	1974	1975	1976
Quantity (1,000 pounds, drained weight)					
January-----	550	1,243	1,285	1,485	3,448
February-----	782	1,096	875	1,509	1,516
March-----	1,274	1,420	335	1,048	1,186
April-----	1,047	1,336	806	997	388
May-----	901	1,494	457	1,158	1,205
June-----	779	1,440	569	1,449	3,916
Subtotal-----	5,333	8,029	4,327	7,646	11,659
July-----	1,124	1,415	587	2,401	4,257
August-----	1,216	1,403	528	1,330	2,468
September-----	860	1,037	691	722	1,539
October-----	795	1,061	246	844	250
November-----	267	712	420	271	1/
December-----	353	352	971	781	1/
Subtotal-----	4,615	5,980	3,443	6,349	1/
Total <u>2/</u> -----	9,946	14,010	7,771	13,995	1/
Value (1,000 dollars)					
January-----	372	761	764	924	2,279
February-----	552	657	513	959	1,063
March-----	886	864	206	688	857
April-----	733	833	488	675	315
May-----	613	894	301	806	991
June-----	522	868	351	927	3,284
Subtotal-----	3,478	4,877	2,623	4,979	8,789
July-----	770	840	350	1,552	3,715
August-----	805	824	381	882	2,224
September-----	591	654	484	525	1,437
October-----	519	659	188	678	263
November-----	186	432	286	202	1/
December-----	231	217	618	530	1/
Subtotal-----	3,102	3,626	2,307	4,369	1/
Total <u>2/</u> -----	6,779	8,502	4,931	9,349	1/

1/ Not available.

2/ Because of rounding, figures may not add to the totals shown.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 13.--Mushrooms, canned: Percentage distribution of U.S. imports, by container sizes 1/ and by principal sources, marketing years 1970/71 to 1975/76

Item	: Republic : of China : (Taiwan)	: Repub- : lic of : Korea	: : : France : :	: : : Japan : :	: All : other	: Total
1970/71:	:	:	:	:	:	:
Retail size-----	42	42	4	27	62	41
Institutional	:	:	:	:	:	:
size-----	58	58	96	73	38	59
Total -----	100	100	100	100	100	100
1971/72:	:	:	:	:	:	:
Retail size-----	43	24	3	31	46	38
Institutional	:	:	:	:	:	:
size-----	57	76	97	69	54	62
Total-----	100	100	100	100	100	100
1972/73:	:	:	:	:	:	:
Retail size-----	43	33	4	22	45	39
Institutional	:	:	:	:	:	:
size-----	57	67	96	78	54	61
Total-----	100	100	100	100	100	100
1973/74:	:	:	:	:	:	:
Retail size-----	44	44	8	14	66	44
Institutional	:	:	:	:	:	:
size-----	56	56	92	86	34	56
Total-----	100	100	100	100	100	100
1974/75:	:	:	:	:	:	:
Retail size-----	50	39	6	15	51	46
Institutional	:	:	:	:	:	:
size-----	50	61	94	85	49	54
Total-----	100	100	100	100	100	100
1975/76:	:	:	:	:	:	:
Retail size-----	52	27	2	22	61	42
Institutional	:	:	:	:	:	:
size-----	48	73	98	78	39	58
Total-----	100	100	100	100	100	100
	:	:	:	:	:	:

1/ Retail-size containers, as here used, hold not more than 9 ounces each, and institutional-size containers hold more than 9 ounces each.

Source: Compiled from official statistics of the U.S. Department of Commerce.

distribution of canned mushroom imports by container size and by principal source, for the marketing years 1970/71 to 1975/76.

Dried, frozen, and fresh mushrooms.--During the marketing years 1970/71 to 1975/76, annual U.S. imports of dried mushrooms ranged from a low of 979,000 pounds in 1971/72 to a high of 1,231,000 pounds in 1974/75 (see table 14). In 1975/76, imports from Japan, Taiwan, and Chile, considered together, accounted for 93 percent of the imports of dried mushrooms from all sources. In relation to total imports of mushrooms in all forms, imports of fresh or frozen mushrooms (virtually all frozen) have been unimportant. From 1970/71 to 1973/74, imports of fresh or frozen mushrooms ranged from 80,000 pounds (fresh-weight basis) in 1972/73 to a high of 354,000 pounds in 1971/72, as shown in table 15. In 1974/75 and 1975/76 there were either no imports of fresh mushrooms or only minor amounts, and the statistics on imports of frozen mushrooms in those years were reported in combination with those on canned mushrooms.

Table 14.--Mushrooms, dried: U.S. imports for consumption, by principal sources, marketing years 1970/71 to 1975/76

Source	Marketing year (July 1-June 30)					
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
	Quantity (1,000 pounds, dried weight)					
Japan-----	545	521	449	420	512	521
Republic of China	:	:	:	:	:	:
(Taiwan)-----	48	239	248	89	117	113
Chile-----	286	140	248	469	538	448
France-----	21	13	7	3	6	1
West Germany-----	76	14	20	11	9	22
All other-----	66	52	179	182	49	53
Total-----	1,042	979	1,151	1,174	1,231	1,158
	Value (1,000 dollars)					
Japan-----	2,230	2,425	2,352	3,057	2,949	3,294
Republic of China	:	:	:	:	:	:
(Taiwan)-----	216	383	732	327	322	385
Chile-----	206	214	579	754	512	294
France-----	110	101	48	7	23	11
West Germany-----	172	42	67	51	42	91
All other-----	188	225	436	727	277	308
Total-----	3,172	3,890	4,264	4,923	4,125	4,383
	Unit value (per pound)					
Japan-----	\$4.19	\$4.65	\$5.23	\$7.28	\$5.76	\$6.32
Republic of China	:	:	:	:	:	:
(Taiwan)-----	4.48	3.69	2.96	3.70	2.74	3.42
Chile-----	.72	1.53	2.33	1.61	.95	.66
France-----	5.36	7.66	6.67	2.23	3.70	15.40
West Germany-----	2.25	3.04	3.28	4.62	4.76	4.10
All other-----	3.12	4.36	2.72	3.99	5.65	5.81
Average-----	3.04	3.97	3.70	4.23	3.35	3.79

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note.--1 pound of dried mushrooms is equivalent to 10 pounds of fresh mushrooms.

Table 15.--Mushrooms, fresh and frozen: U.S. imports for consumption, from the Republic of China (Taiwan) and all other sources, marketing years 1970/71 to 1975/76

Source	Marketing year (July 1-June 30)					
	1970/71	1971/72	1972/73	1973/74	1974/75 <u>1/</u>	1975/76 <u>1/</u>
	Quantity (1,000 pounds)					
Republic of						
China-----	299	318	72	161	0	0
All other-----	17	36	8	70	0	6
Total-----	316	354	80	231	0	6
	Value (1,000 dollars)					
Republic of						
China-----	111	118	30	58	0	0
All other-----	5	10	4	40	0	11
Total-----	116	128	34	98	0	11
	Unit value (cents per pound)					
Republic of						
China-----	37.3	37.2	41.6	35.8	0	0
All other-----	29.8	27.6	50.0	58.3	0	176.0
Average-----	36.9	36.2	42.5	42.5	0	176.0

1/ Does not include imports of frozen mushrooms which since mid 1974 have not been separately classified but have been reported in TSUS item 144.20 with imports of other prepared or preserved mushrooms.

Source: Compiled from official statistics of the U.S. Department of Commerce.



The ratio of U.S. imports to domestic production

Aggregate production.--If U.S. imports of canned, dried, and frozen mushrooms, considered in the aggregate, are compared with domestically produced fresh mushrooms for all purposes, the ratio of imports to production increased from 18 percent in 1965/66 to 34 percent in 1972/73, as shown in table 7. Since 1972/73, the ratio of imports to production has been less than the 34-percent figure recorded in that year, largely because production has been expanding faster than imports. In 1975/76, total imports of 100 million pounds were equivalent to 32 percent of the U.S. fresh-mushroom production of 310 million pounds. In the latest year, both imports and production were the highest on record.

The ratio of imports of only canned mushrooms to domestically produced mushrooms for all purposes shows much the same pattern (see tables 16 and 17) for much the same reason (i.e., production increasing faster than imports).

Canned mushroom production.--The ratio of U.S. imports of canned mushrooms to domestically produced canned mushrooms increased almost without interruption from 33 percent in 1968/69 to 85 percent in 1975/76, as shown in table 18. In 1971/72, when U.S. production of canned mushrooms was the highest on record, the ratio of imports to production was 45 percent.

Table 16.--Mushrooms: U.S. production, exports, imports of canned mushrooms for consumption, and apparent consumption, marketing years 1965/66 to 1975/76

(Quantities, fresh-weight basis)						
Marketing year (July 1-June 30)	Production	Exports <sup>1/</sup>	Imports of canned mushrooms	Apparent consump- tion <sup>2/</sup>	Ratio of imports to consumption	Ratio of imports to production
	Million pounds	Million pounds	Million pounds	Million pounds	Percent	Percent
1965/66-----	156	3/	21	177	12	14
1966/67-----	165	3/	26	191	14	16
1967/68-----	181	3/	36	217	17	20
1968/69-----	189	3/	31	220	14	16
1969/70-----	194	3/	42	236	18	22
1970/71-----	207	2	43	248	17	21
1971/72-----	231	1	62	292	21	27
1972/73-----	254	1	74	327	23	29
1973/74-----	279	7	70	342	21	25
1974/75-----	299	5	77	371	21	26
1975/76-----	310	2	88	396	22	28

<sup>1/</sup> Compiled from official Canadian import statistics. U.S. exports of mushrooms to other countries are negligible.

<sup>2/</sup> Production plus imports minus exports for marketing years 1970/71 through 1975/76.

<sup>3/</sup> Marketing year data are not available.

Source: Production data compiled from official statistics of the U.S. Department of Agriculture; import data compiled from official statistics of the U.S. Department of Commerce; and export data compiled from official Canadian Government statistics.

Table 17.--Mushrooms: U.S. production for fresh-market sales; production of canned mushrooms, and total, and imports, marketing years 1968/69 to 1975/76

(Quantities, fresh-weight basis)					
Marketing year (July 1-June 30)	Production			Ratio of	
	Fresh-	Canned	Total	Imports:	imports to
	market	mushrooms			production
	sales				
	<u>Million</u>	<u>Million</u>	<u>Million</u>	<u>Million</u>	
	<u>pounds</u>	<u>pounds</u>	<u>pounds</u>	<u>pounds</u>	<u>Percent</u>
1968/69-----	56	93	149	31	21
1969/70-----	62	99	161	42	26
1970/71-----	58	113	171	43	25
1971/72-----	66	137	203	62	30
1972/73-----	77	121	198	74	37
1973/74-----	102	106	208	70	34
1974/75-----	126	112	238	77	32
1975/76-----	142	104	246	88	36

Source: Statistics on production of mushrooms for fresh-market sales were supplied by the U.S. Department of Agriculture; statistics on production of domestically canned mushrooms are from data submitted by domestic canners; statistics on imports were compiled from official statistics by the U.S. Department of Commerce.

Table 18.--Mushrooms, canned: U.S. production and imports, marketing years 1968/69 to 1975/76

(Quantities, fresh-weight basis)			
Marketing year (July 1-June 30)	Production	Imports	Ratio of imports to production
	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Percent</u>
1968/69-----	93	31	33
1969/70-----	99	42	42
1970/71-----	113	43	38
1971/72-----	137	62	45
1972/73-----	121	74	61
1973/74-----	106	70	66
1974/75-----	112	77	68
1975/76-----	104	88	85

Source: Production data were estimated by the U.S. International Trade Commission from sales and inventory data submitted by domestic canners; import data were compiled from official statistics of the U.S. Department of Commerce.

The ratio of U.S. imports to domestic consumption

Aggregate consumption.--If apparent consumption is construed to mean domestic production of fresh mushrooms (intended for use in both the fresh- and the processed-mushroom markets) minus Canadian imports of fresh and canned mushrooms from the United States plus U.S. imports of processed mushrooms (canned, dried, and frozen), the ratio of imports to apparent consumption during the period 1965/66 to 1975/76 ranged from a low of 15 percent in 1965/66 to a high of 25 percent in 1972/73 and again in 1975/76, as shown in table 7. The ratio was 23 percent in each of the marketing years 1973/74 and 1974/75. If imports of only canned mushrooms are considered, the ratio of imports to consumption is at a lower level throughout the 1965/66 to 1975/76 period. The 1972/73 high, for example, totaled only 23 percent (see table 16).

If apparent consumption is construed to mean domestic sales to the fresh market plus sales of canned mushrooms minus Canadian imports of fresh and canned mushrooms from the United States plus U.S. imports of canned mushrooms (see table 19), the ratio of imports to consumption also reached its highest level to date, 28 percent, in 1972/73.

Canned mushroom consumption.--The ratio of imports of canned mushrooms to apparent U.S. consumption of such mushrooms increased irregularly from 19 percent in the 1964/65 marketing year to 44 percent in the 1975/76 marketing year (see table 20). As consumption was increasing during most of the 12-year period, the imports of canned mushrooms were accounting for an increasing share of a generally rising demand.

Table 19.--Mushrooms: U.S. fresh-market sales, sales of domestically canned mushrooms, exports, imports, and apparent consumption, marketing years 1968/69 to 1975/76

(Quantities, fresh-weight basis)							
Marketing year (July 1-June 30)	Sales of--		Exports	Imports	Apparent consumption	Ratio of imports to consumption	
	Mushrooms	Domesti-					
	to the fresh market	cally canned mushrooms					
	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Percent</u>	
1968/69-----	56	95	1/	31	182	17	
1969/70-----	62	100	1/	42	204	21	
1970/71-----	58	115	2	43	214	20	
1971/72-----	66	127	1	62	254	24	
1972/73-----	77	115	1	74	265	28	
1973/74-----	102	108	7	70	273	26	
1974/75-----	126	116	5	77	315	24	
1975/76-----	142	113	2	88	341	26	

1/ Not available.

Source: Data on sales of mushrooms to the fresh market were from the U.S. Department of Agriculture; data on sales of domestically canned mushrooms were from data submitted by domestic canners; export data were from official Canadian import statistics; import data were compiled from official statistics of the U.S. Department of Commerce.

Table 20.--Mushrooms, canned: Sales of U.S. product, U.S. imports for consumption, and apparent consumption, marketing years 1964/65 to 1975/76

(Quantities, fresh-weight basis)				
Marketing year (July 1-June 30)	Sales of U.S. product <u>1/</u>	Imports	Apparent consump- tion <u>2/</u>	Ratio of imports to consumption
	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Million</u> <u>pounds</u>	<u>Percent</u>
1964/65-----	68	16	84	19
1965/66-----	72	21	93	23
1966/67-----	72	26	98	27
1967/68-----	80	34	114	30
1968/69-----	95	31	126	24
1969/70-----	100	42	142	29
1970/71-----	115	43	158	27
1971/72-----	127	62	189	33
1972/73-----	115	74	189	39
1973/74-----	108	70	178	39
1974/75-----	116	77	193	40
1975/76-----	113	88	201	44
:	:	:	:	:

1/ Mushroom products canned in airtight containers and consisting of 50 percent or more of mushrooms, by weight.

2/ Sales of U.S. product plus imports. Exports are negligible.

Source: Data on sales of U.S. product were compiled from data supplied by domestic canners and the National Canners Association; import data were compiled from official statistics of the U.S. Department of Commerce.

Note.--Data on canned products were converted to fresh-weight equivalents on the basis of 1 pound of drained weight to 1.538 pounds of fresh weight.

#### Trends in imports and consumption

Absolute changes in U.S. imports and consumption can be seen in table 21, which follows.

Table 21.--Mushrooms, canned and in all forms: Absolute changes from preceding corresponding period in U.S. imports and consumption, marketing years 1970/71 to 1975/76, 6-year change from 1970/71 to 1975/76, and change from 3-month period July to September 1975 to July-September 1976

(Quantities in millions of pounds, fresh-weight basis)							
Item	Canned mushrooms				Mushrooms in all forms		
	U.S. imports from--			U.S. consumption	U.S.		U.S. consumption
	Taiwan	South Korea	All countries		imports 1/		
Marketing year (July 1- June 30) changes from previous year:							
1970/71-----	+0.9	+0.2	+1.0	+16.0	+4.3		+15.0
1971/72-----	+6.0	+10.3	+18.4	+31.0	+17.8		+44.0
1972/73-----	+3.0	+8.0	+12.5	0	+13.9		+37.0
1973/74-----	+0.4	-3.6	-4.2	-11.0	-3.8		+15.0
1974/75-----	+5.9	+1.2	+7.2	+15.0	+7.5		+29.0
1975/76-----	+2.8	+10.6	+11.0	+8.0	+10.3		+25.0
6-year change (1970/71- 1975/76)2/-----	+19.0	+26.7	+45.9	+59.0	+50.0		+165.0
July-September change from 1975 to 1976----	+11.5	+5.7	+18.7	+8.7	3/		3/

1/ Consists of all imports--fresh, frozen, dried, and canned.

2/ Data reflect absolute changes over the entire period, i.e., from the base year 1969/70 (the marketing year prior to 1970/71) through 1975/76.

3/ Not available.

Source: Compiled from tables 7, 8, 15, 16, 20, and 22 of this report and tables 8, 11, and 12 of the Commission's report Mushrooms . . . , TC Publication 580, May 1973.



The recent situation in imports

Import data for 10 additional months have become available since the completion of investigation No. TA-201-10. The most relevant changes that have taken place since the last investigation on mushrooms are noted below.

Changes in imports.--U.S. imports of canned mushrooms during the first 6 months of 1976 amounted to 32.1 million pounds (drained weight)--18.5 million pounds from Taiwan and 11.7 million pounds from South Korea. This brought the total importations for the 1975/76 marketing year to 57.4 million pounds, an increase of 7.2 million pounds or about 14 percent over the 1974/75 marketing year total of 50.2 million pounds. Imports from Taiwan, which amounted to 36.0 million pounds in 1975/76, made up 1.8 million pounds of this 7.2-million-pound increase, and those from South Korea, which amounted to 18.0 million pounds, accounted for 6.9 million pounds of the increase. During this period, U.S. imports from all other suppliers declined by about 1.5 million pounds.

In the 10-month period, January-October 1976, U.S. imports of canned mushrooms totaled 62.1 million pounds, drained weight, (38.3 million pounds from Taiwan and 20.2 million pounds from South Korea) compared with 47.5 million pounds for the corresponding period in 1975. This represents an increase of 14.6 million pounds (about 31 percent), consisting of 7.4 million pounds of imports from Taiwan and 7.2 million pounds of imports from South Korea.

Most of the increase in importations during the January-October period in 1976 can be attributed to the unusually heavy volume of imports in the months of June, July, and August. Imports during these 3 months in 1976 amounted to 32.8 million pounds, more than double the

15.8 million pounds that entered during the June-August period of 1975 or an increase of 17.0 million pounds. Importations from Taiwan accounted for 11.0 million pounds of this 17.0-million-pound increase, and those from South Korea, 5.5 million pounds.

Imports so far in marketing year 1976/77 (July-October) have amounted to 30.0 million pounds. This represents an increase of 10.5 million pounds above the 19.5 million pounds imported during the July-October period in the previous marketing year.

Factors affecting recent changes in imports.--On the basis of recent public testimony and information from U.S. Government and trade sources, the level of imports in 1976, which has been generally higher, especially during the months of June, July, and August, may be attributed to the following factors:

- (1) U.S. importer's anticipations regarding changes in price. The prices of canned mushrooms from Taiwan, for example, were scheduled several months in advance for a 3 percent increase, effective August 1, 1976.
- (2) U.S. importer's anticipations regarding increases in shipping costs. Also, the lack of available cargo space precluded shipping on a more orderly basis. 1/
- (3) A relatively tight worldwide supply/demand situation which forced U.S. importers to compete aggressively among themselves and with other importing countries.
- (4) Reduced availability of canned-mushroom stocks within the United States. This can be seen in the following table 22.

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1/ Transcript of the Commission's hearing on mushrooms, investigation No. TA-201-17, p. 210.

\* \* \* \* \*

- (5) A marked increase in U.S. consumption of canned mushrooms in 1976 compared with the preceding year.
- (6) Negotiations with exporting nations. Along with the request for a reinvestigation made to the Commission, the Special Representative for Trade Negotiations undertook negotiations with Taiwan and South Korea for the purpose of moderating exports of mushrooms to the United States from those two countries and thereby preventing further disruption in the U.S. market. In this regard, a U.S. negotiating team, headed by Ambassador Clayton K. Yeutter, visited those two nations in late September and was given assurances by officials of those Governments that exports to the United

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### Foreign supply and demand

On the world market the principal suppliers of canned mushrooms are: Taiwan, South Korea, France, the Netherlands, and recently the People's Republic of China. The principal importers are: the Federal Republic of Germany (West Germany), the United States, and Canada, in that order. Other importers of significance are: Australia, Japan, Sweden, and Switzerland. In 1975 West Germany purchased most of the exports of France and the Netherlands, its two partners in the EC. There were hardly any exports to the United States from these two EC exporters.

Taiwan and South Korea predominate as exporters to the United States. These are the two countries, therefore, whose export volumes and export policies have a direct impact on the U.S. mushroom industry. <sup>2/</sup> The exports of both countries are fairly diversified, thus a market reorientation on their part necessarily affects U.S. interests.

The People's Republic of China is presently not exporting meaningful volumes of canned mushrooms to the United States, but the export orientation of the People's Republic of China can have an important indirect effect on U.S. industry. For example, the People's Republic of China could displace other Far Eastern exports on the West German and Canadian markets and divert such exports to the United States.

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<sup>1/</sup> Taiwan's target quantity of canned mushrooms for export to the United States in calendar year 1977 has been set at 42 million pounds. (Prepared statement of Mr. S. G. Koo, chairman of the Taiwan Mushroom Packers United Export Corp., for the Commission's hearing on mushrooms, investigation No. TA-201-17, p. 3.)

<sup>2/</sup> The mushroom production and trade of Taiwan and South Korea was discussed in the Commission's earlier report, Mushrooms . . ., USITC Publication 761, March 1976 (see section entitled "Foreign producers," p. A-40).

A further threat against the U.S. industry is posed by protective measures of other large importers, such as West Germany against imports of canned mushrooms. Such measures also have the likely effect of increasing the Far Eastern trade flow to the U.S. market. Certain recent developments on the world market with a possible impact on the U.S. industry are discussed below.

Taiwan.--The Commission's earlier report of 1976 1/ stated that Taiwan's production of canned mushrooms peaked in 1971/72 and declined thereafter through 1974/75. According to most recent information, the downtrend was reversed in the 1975/76 growing season, when production for canning was 27 percent more by quantity than in the previous season. Yet, this output was 14 percent lower than the average of the preceding five growing seasons, two-thirds of peak output in the 1971/72 crop year, and slightly below the production of 10 years earlier. Trade sources indicate that the long-range decline of the industry appears attributable to causes such as the migration of factory workers to urban areas, adverse climate in some years, and an intermittent threat of import restrictions. According to testimony submitted at the Commission's hearing, on November 12, 1976, 2/ prices of fresh mushrooms were not as attractive to Taiwanese growers as those of other crops until recently, when a mushroom shortage on the world market became apparent and growers' prices increased significantly.

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1/ For more information relating to Taiwan's mushroom industry, refer to the Commission's report Mushrooms . . ., USITC Publication 761, March 1976.

2/ Prepared statement of Mr. S. G. Koo, chairman of the Taiwan Mushroom Packers United Export Corp., for the Commission's hearing on mushrooms, investigation No. TA-201-17, p. 3.

South Korea.--In 1975 the mushroom industry of South Korea did not continue its long term growth. 1/ The area devoted to mushroom production declined by 7.5 percent compared with its all-time high in 1974. The average yield declined to 2.46 pounds per square foot in 1975 from 2.55 pounds per square foot in 1974. The combined result of the above developments was an 11 percent decline of fresh mushroom production.

Production of fresh mushrooms has been targeted to reach 70 million pounds in 1976, 27 percent more than the 1975 production. Certain trade sources believe that such growth will not materialize in view of the reduced profitability of mushroom growing in South Korea. Wage rates for farm labor doubled between the spring of 1975 and the spring of 1976, 2/ and according to testimony submitted at the Commission's hearing, there were significant increases in labor costs for canners and other pertinent cost items as well. 3/

About 80 percent of the output of fresh mushrooms is canned, and about 90 percent of the output of canned mushrooms is exported. In 1975, following a decline in 1974, exports of canned mushrooms increased again. According to a midyear estimate received by the U.S. Department of Agriculture, the volume of exports of canned mushrooms in 1976 will be about the same as that in 1975. 4/

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1/ For information relating to South Korea's mushroom industry and exports prior to 1975, refer to the Commission's report Mushrooms . . ., USITC Publication 761, March 1976.

2/ United States Agricultural Attache's Annual Canned Vegetable (Mushroom) Report: Korea, June 22, 1976.

3/ Transcript of the Commission's hearing on mushrooms investigation No. TA-201-17, p. 270.

4/ United States Agricultural Attache's Annual Canned Vegetable (Mushroom) Report: Korea, June 22, 1976

Costa Rica . 1/--As part of its efforts to attain economic growth and diversification in recent years, Costa Rica established a mushroom industry, supported by international lending institutions and U.S. development agencies. The Government of Costa Rica claims that the United States, Costa Rica's principal trading partner, is the country's only outlet for exports of processed mushrooms. Projections concerning Costa Rica's exports of canned mushrooms (all destined for the United States) are as follows:

<u>Year</u>	<u>Million pounds</u> (drained weight)
1977-----	1.9
1978-----	2.2
1979-----	2.8
1980-----	3.9
1981-----	5.0

In 1974/75 imports of canned mushrooms from Costa Rica amounted to 0.2 percent of apparent U.S. consumption by quantity. The Government of Costa Rica expects to supply 0.5 percent of the U.S. market in 1977. According to the U.S. Department of Agriculture there is some indication that a large U.S. corporation will be involved in Costa Rica's production and exports of canned mushrooms.

The People's Republic of China.--Mushroom exports from the People's Republic of China are considered by some to be a potential threat to the U.S. industry. For example, the Pennsylvania Food Processors

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1/ This section is based on a brief submitted by the Ambassador of Costa Rica to the United States at the Commission's hearing on mushrooms, on Nov. 12, 1976, (Investigation No. TA-201-17).

Association alleges that, despite the higher statutory rate of duty applicable to the People's Republic of China, 1/ this country might dump a substantial volume of subsidized canned mushrooms on the U.S. market. According to others, the threat the People's Republic of China poses to U.S. industry is indirect. Subsidized canned mushrooms from the People's Republic of China might displace exports from other sources in the principal importing countries, such as West Germany and Canada, thereby increasing the pressure of such exports on the U.S. market.

Trade sources in the EC contacted by the U.S. Department of Agriculture report that exports from the People's Republic of China appear to have a competitive edge over the Far Eastern exports in terms of quality and price. However, in January to August 1975 and January to August 1976, quantities exported from the People's Republic of China to West Germany remained generally on the same level, and 1975 exports were less than those in 1974.

West Germany.--West Germany's share of imports from other EC members (mostly France and the Netherlands) increased to 73 percent in January-August 1976, compared with 61 percent in the corresponding period of 1975. Such additional imports from EC partners displaced imports predominantly from Taiwan. In January-August 1976, Taiwan's share of the West German market dropped to 8 percent from 22 percent in the corresponding period of 1975. The People's Republic of China's share of the West German market increased slightly from 15 to 16 percent in the same period.

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1/ The statutory rate of duty for TSUS item No. 144.20 (canned mushrooms) applicable to the People's Republic of China is 10 cents per pound plus 45 percent ad valorem. For countries other than those under Communist control the rate is 3.2 cents per pound plus 10 percent ad valorem.



The EC restricts imports of preserved mushrooms by means of a minimum import price/licensing system provided for in EEC regulation No. 2107/74, effective August 1974. Subsequent regulations specified import quotas in terms of percentages applied to imports that took place in the reference period (1973, or the average of 1971, 1972, and 1973). A regulation effective July 1975 allowed 25 percent of the imports in the reference period, and two subsequent regulations effective in March and April 1976 raised this percentage first to 40, then to 55. On the basis of EEC regulation No. 2284/76, the current quota, effective October 1976, is 100 percent of imports in the reference period.

The trend of liberalizing import quotas reflects apparent, although perhaps temporary, shortages on the world market. Future EC action will, in all likelihood, depend on the quantities and prices of imports, with quota limitations starting as soon as third-country shipments come close to 30 percent of the total imports and/or landed prices fall below a certain level.

The Question of Serious Injury or Threat Thereof  
to the Domestic Industry

U.S. production

Fresh mushrooms.--U.S. annual production of fresh mushrooms (for all uses) increased from 207 million pounds in marketing year 1970/71 to 310 million pounds in 1975/76 (table 23). Fresh mushrooms are sold not only in the fresh market but also to canners and other outlets, including soup processors. Sales by type and percent of total sales in recent years are shown in table 23.

Table 23.--Mushrooms: U.S. producers' sales, by type and percent of total, marketing years 1966/67 to 1975/76

(Quantities, fresh-weight basis)					
Marketing year :	Sales to		Sales to		Total
(July 1-June 30) :	fresh market		processors 1/		
:	Quan-	Percent	Quan-	Percent	production
:	tity	:	tity	:	:
:	<u>Million</u>	:	<u>Million</u>	:	<u>Million</u>
:	<u>pounds</u>	:	<u>pounds</u>	:	<u>pounds</u>
1966/67-----:	42	25	123	75	165
1967/68-----:	48	26	133	74	181
1968/69-----:	56	30	133	70	189
1969/70-----:	62	32	132	68	194
1970/71-----:	58	28	149	72	207
1971/72-----:	66	29	165	71	231
1972/73-----:	77	30	177	70	254
1973/74-----:	102	37	177	63	279
1974/75-----:	126	42	173	58	299
1975/76-----:	142	46	168	54	310

1/ Composed of sales to all processors (canners, soup manufacturers, driers, etc.)

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 23. reveals that during the period 1970/71 to 1975/76 mushroom sales to the fresh market increased by 145 percent, while mushroom sales to processors increased only 13 percent over the same period. Such sales to processors increased by 19 percent from

1970/71 to 1973/74 and then declined by 5 percent during the period 1973/74 to 1975/76. The share of reported annual production of fresh mushrooms shipped to processors (including canners, soup processors, driers, and so forth) declined from 72 percent of the total in 1970/71 to 54 percent in 1975/76 (table 23). In the same period the share sold to the fresh market increased from 28 to 46 percent of the annual output. The increasing share accounted for by the fresh market might be attributed, in part, to the recent involvement, on a large scale, of large food processing concerns, such as the Ralston Purina Co. and Castle & Cooke, Inc., in the production of mushrooms for fresh-market sale.

Canned mushrooms.--U.S. production of canned mushrooms increased from 93 million to 137 million pounds (fresh-weight basis) from 1968/69 to 1971/72 and then decreased irregularly to 104 million pounds in 1975/76, as shown in table 18.

U.S. sales of domestically canned mushrooms (partly estimated) exhibited much the same pattern as production during the period 1968/69 to 1975/76. After rising steadily through 1971/72, sales declined from a high of 127 million pounds (fresh-weight basis) in that marketing year to 113 million pounds in 1975/76 (see table 20). <sup>1/</sup> In the 5-year period of 1965/66 to 1969/70, sales of domestic canned mushrooms increased without interruption from 72 million pounds to 100 million pounds.

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<sup>1/</sup> On April 5, 1973, following disclosure of the third instance in 1973 of the finding of the bacterium Clostridium botulinum in domestically processed mushrooms, the U.S. Food and Drug Administration announced plans to investigate the domestic mushroom-processing industry. As a result of this investigation, Clostridium botulinum spores and/or toxin were found to be present in the canned mushroom product of several firms.

During the period 1972/73 through 1975/76 about 55 percent of the domestic canners' sales were of mushrooms packed in retail-size containers; the remainder were packed in institutional-size containers. About 90 percent of the domestic product was packed in a brine solution; the remainder consisted largely of specialty packs. In 1975/76, 83 percent of the U.S.-produced mushrooms packed in brine consisted of stems and pieces, 8 percent were sliced mushrooms, and 9 percent were whole or button mushrooms.

Frozen and dried mushrooms.--Sales of U.S.-produced frozen and freeze-dried mushrooms are small in relation to total sales of fresh and canned mushrooms. During the marketing years 1972/73 through 1975/76, sales of domestically produced frozen mushrooms ranged from 1 million to 2 million pounds annually. There are no official data available on domestic production of dried mushrooms, but it is believed that production of dried mushrooms has been about 1 million pounds (fresh-weight basis) annually in recent years.

#### U.S. inventories

Inventories of domestically canned mushrooms held by the canners increased from 14.6 million pounds (fresh-weight basis) on June 30, 1971, to 31.0 million pounds on June 30, 1973 (see table 24). Thereafter, inventories declined and, on June 30, 1976, were recorded at 16.5 million pounds.

Table 24.--Mushrooms, canned: U.S. canners' inventories of the domestically produced product on June 30 of 1971-76

(In millions of pounds, fresh-weight basis)

Item	Inventory, June 30--					
	1971	1972	1973	1974	1975	1976
Mushrooms canned in						
brine or butter,						
in--						
Retail-size con-						
tainers-----	8.9	14.2	22.4	20.2	17.4	13.6
Institutional-size						
containers-----	4.3	8.2	7.5	7.8	7.3	2.7
Subtotal-----	13.2	22.4	29.9	28.0	24.7	16.3
Other canned						
mushrooms-----	1.4	2.6	1.1	1.0	.7	.2
Total-----	14.6	25.0	31.0	29.0	25.4	16.5

Source: Compiled from data submitted to the U.S. International Trade Commission by domestic canners, except as noted.

Note.--Inventory information for the marketing years 1970/71 and 1971/72 was submitted by 23 canners that accounted for 89 percent of sales of canned mushrooms in 1971/72. Inventory information for the marketing years 1972/73, 1973/74, and 1974/75 was received from 25 canners and estimated for 4 additional canners from information available to the Commission from its previous mushroom investigation and other sources. Inventory information for the marketing year 1975/76 was received from 26 canners and estimated for 3 additional canners. It is believed that these 29 canners accounted for nearly 100 percent of sales of domestically produced canned mushrooms in 1972/73, 1973/74, 1974/75, and 1975/76.

1/ Inventory data are also available from table 5 of the Commission's report Mushrooms, . . ., TC Publication 580, May 1973, p. A-90.

The ratio of end-of-marketing year inventories to marketing-year sales declined from 27 percent for the 1972/73 marketing year to 15 percent for the 1975/76 marketing year, compared with an average inventory-to-sales ratio of 17 percent for the marketing years 1968/69 to 1971/72 (table 20 and 24). 1/

On June 30, 1976, about 82 percent of the inventory on hand consisted of mushrooms in brine or butter in retail-size containers, and about 16 percent of the inventory was made up of mushrooms in brine or butter in institutional-size containers.

U.S. exports

Canned mushrooms.--Although data on U.S. exports are not separately reported, Canada is believed to be the only important export market for U.S. canned mushrooms. Canadian import statistics show that annual imports of canned mushrooms into Canada from the United States during the calendar years 1964-70 1/ ranged from 46,000 pounds in 1964 to 334,000 pounds in 1969 and averaged 159,000 pounds (fresh-weight basis) a year. During the marketing years (July 1-June 30) 1970/71 through 1975/76, Canadian imports of U.S. canned mushrooms ranged from 125,000 pounds in 1970/71 to 561,000 pounds in 1973/74 and averaged 288,900 pounds (fresh-weight basis) a year. In recent years, less than 1 percent of Canadian imports of canned mushrooms have come from the United States; about nine-tenths of the Canadian imports have come from Taiwan, South Korea, and the People's Republic of China.

Fresh, frozen, and dried mushrooms.--Canada is also believed to be the only important export market for U.S. fresh mushrooms. Canadian import statistics show that annual imports of fresh mushrooms from the United States during the calendar years 1964-70 1/ ranged from 833,000 pounds in 1965 to 2,527,000 pounds in 1967 and averaged 1,809,000 pounds (fresh-weight basis) a year. On a marketing year basis for 1970/71 to 1975/76, Canadian imports of fresh mushrooms ranged from 616,000 pounds in 1972/73 to 6,478,000 pounds in 1973/74 and averaged 2,481,000 pounds a year. Data on U.S. exports of frozen and freeze-dried mushrooms are not available; however, these exports are believed to be negligible in relation to exports of canned and fresh mushrooms.

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1/ Marketing year data were not available for the years prior to 1970/71.

U.S. employment

Growers. 1/--Because of the time constraints under which this investigation was conducted, growers were not surveyed concerning their employment data for the period since the Commission's last report.

Canners.--During 1968/69 to 1972/73, the number of production and related workers engaged in canning operations increased in each consecutive year, from 1,548 to 1,780. Thereafter, such employment declined to 1,632 in 1973/74, 1,360 in 1974/75, and declined further to 1,207 in 1975/76. 2/

During 1968/69 through 1972/73, man-hours worked by production and related workers engaged in canning mushrooms increased from an estimated 1.4 million to 1.8 million. Thereafter, man-hours declined to 1.6 million in 1973/74, 1.5 million in 1974/75, and 1.2 million in 1975/76. 2/

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1/ For more information relating to workers employed by mushroom growers, refer to the Commission's report Mushrooms. . ., USITC Publication 761, March 1976.

2/ Employment and man-hour data were compiled from information submitted to the Commission by domestic mushroom canners producing about 70 percent of domestic canned mushroom production.

Financial experience of U.S. producers

Mushroom canners.--Financial data were received from 25 firms for 1973-75. For 1976, partial-year data were received from 21 firms. The 25 firms represent in excess of 80 percent of the total sales of domestic mushroom canners for 1973-75, and the 21 firms account for about 65 percent.

Net sales of canned mushrooms by the 25 firms amounted to \$69.7 million in 1973, \$69.2 million in 1974, and \$71.8 million in 1975. The 21 firms reported net sales of \$56.3 million for partial year 1976. These firms experienced net operating losses of \$5.6 million in 1973, \$4.1 million in 1974, and \$318,000 in 1975. A slight profit of \$1.3 million was reported by the 21 firms for 1976 (see table 25).

The ratio of net operating loss to net sales was 8.1 percent in 1973, 6.0 percent in 1974, and 0.5 percent in 1975. The net operating profit was 2.4 percent of net sales in 1976.

The number of firms incurring losses was 17 in 1973, 16 in 1974, and 12 in 1975. Seven firms reported losses in 1976. Only 3 of the 21 firms were able to operate at a level of net operating profit, which was 6 percent of net sales or higher, in 1976.



Table 25.--Profit-and-loss experience of U.S. producers of canned mushrooms on their mushroom-canning operations, 1973-75 and partial-year 1976

Item	: 1973	: 1974	: 1975	: 1976 (partial year)
Sales-----1,000 dollars--	69,747	69,162	71,826	56,296
Cost of goods sold-----do----	64,513	63,439	66,483	49,876
Gross profit-----do----	5,234	5,723	5,343	6,420
Selling and administrative expenses-----1,000 dollars--	10,883	9,858	5,661	5,096
Net operating profit or (loss)-----do----	(5,649)	(4,135)	(318)	1,324
Other expenses-----do----	1,263	1,739	834	741
Net profit or (loss) before income taxes--1,000 dollars--	(6,912)	(5,874)	(1,152)	583
Ratio of net operating profit or (loss) to net sales-----percent--	(8.1)	(6.0)	(0.5)	2.4
Ratio of net profit or (loss) before income taxes to net sales-----percent--	(9.9)	(8.5)	(1.6)	1.0
Number of firms reporting-----number--	25	25	25	21
Number of firms reporting net operating losses-----number--	17	16	12	7

Source: Compiled from data submitted to the U.S. International Trade Commission by the domestic producers.

Silverbrook Foods, Inc., and Mushroom Cooperative Canning Co. submitted their unit-cost-of-production data for a case of 24/4-ounce cans of stems and pieces as of June 30 of 1974-76. The unit cost is composed of mushroom costs, direct labor, cartons, cans, and labels, and other factory costs. The average June selling price was also submitted for the years 1974-76 (see table 26).

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Mushroom growers.--Sales by mushroom growers increased from \$68.4 million in 1973 to \$76.8 million in 1974 and \$89.5 million in 1975 (see table 27).

Table 27.--Profit-and-loss experience of U.S. mushroom growers <sup>1/</sup> on their mushroom operations, 1973-75 and partial year 1976

Item	1973	1974	1975	1976 (partial year)
Net sales-----1,000 dollars--	68,397	76,840	89,496	37,987
Expenses:				
Materials-----do----	15,745	18,087	17,245	<sup>2/</sup>
Labor-----do----	23,357	28,520	34,594	<sup>2/</sup>
Other-----do----	24,925	28,382	34,141	<sup>2/</sup>
Total-----do----	64,027	74,989	86,080	34,311
Net profit-----do----	4,370	1,851	3,416	3,676
Ratio of net profit to				
net sales-----percent--	6.4	2.4	3.8	9.7

<sup>1/</sup> Questionnaires were sent to a sample group for 1973-75, and data were obtained from 16 growers for 1976.

<sup>2/</sup> Not available.

Source: Compiled from data submitted to the U.S. International Trade Commission by the domestic growers.

Net profits from the mushroom farms were \$4.4 million in 1973, \$1.9 million in 1974, and \$3.4 million in 1975. The ratio of net profit to net sales in 1973-75 ranged from 2.4 percent (in 1974) to 6.4 percent (in 1973).

Data available to the Commission on mushroom farms which are unincorporated do not include an amount for the labor of the owners and the owners' families in the expenses of the farms. Most of the mushroom farms are unincorporated. Normally, the unincorporated farms are fairly close to their owners' residence, enabling family members to participate in picking, watering, and other required labor in growing mushrooms. The extent to which the profits shown would be reduced if an appropriate amount for the labor of the owners and owners' families was included in the expenses of mushroom growing cannot be estimated.

Since financial data for small growers would not be available for partial year 1976, selected large growers which submitted data in the previous investigation were asked to submit data for 1976. Such data were obtained from 16 growers whose sales represent about 35 percent of all mushrooms sold. Net sales of these growers amounted to \$38.0 million, and net profit was \$3.7 million. The ratio of net profit to net sales was 9.7 percent for partial year 1976. The same 16 growers reported a ratio of net profit to net sales of 3.9 percent in 1975.

Butler County Mushroom Farm, Inc., which is the largest grower in the United States, submitted a detailed analysis of its selling price and cost of production per pound for the fiscal years ended June 30 of 1972-76 (see table 28). Its average selling price per pound increased

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### U.S. producers' efforts to compete with imports

The domestic mushroom industry's efforts to improve its competitive position in relation to imports have taken several forms. The industry has relied heavily upon The Pennsylvania State University (Penn State) to develop and test more efficient mushroom growing, processing, and marketing techniques. Officials at Penn State have indicated that domestic growers and canners have helped finance many of these research projects, and domestic growers and canners have indicated that whenever it was economically possible they have incorporated these improvements into their operations.

Research in the last decade on various aspects of mushroom production has resulted in a mechanical spawn-mixing machine for the bed system of growing mushrooms and a unitized ventilation machine. <sup>1/</sup> Work is continuing on a mechanical harvester. The general trend in mushroom engineering has been toward the development of mechanical equipment to reduce labor costs and to provide better environmental control. Yields per square foot, after steadily increasing over the 1970/71 to 1974/75 period, were unchanged in 1975/76 from the previous year (see table 1). The Penn State Horticulture Department has recently (1975) developed a means of improving quality and reducing mushroom shrinkage during canning. The implementation of the processes and systems associated with this technique is designed to save labor and reduce product loss.

Mushroom growers and canners have recognized the need to cooperate for their common interest in obtaining supplies, obtaining better

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<sup>1/</sup> Mushroom growers use the term "spawn" for the vegetative culture of mushroom mycelium ("hair-like roots") and substrate (material on which the mycelium grows). Spawn is used to seed the mushroom beds.

prices, promoting mushroom sales, and encouraging research and educational programs. The American Mushroom Institute (AMI) has served to unite the growers in a program of cooperative advertising and self improvement through education. The Mushroom Cannery Committee of the Pennsylvania Food Processors Association is a national trade organization of companies that are reported to process about 90 percent of the mushrooms canned in the United States. Both the AMI and the Mushroom Cannery Committee have helped foster research and educational programs at Penn State, the U.S. Department of Agriculture, and other institutions. They have worked closely with food editors in developing new mushroom recipes, conducted educational programs to encourage wider use of mushrooms, and provided other useful information for their members and consumers.

Public testimony has revealed that some domestic canners have tried to become more competitive by increasing the production of the less labor intensive stems-and-pieces style of pack, while decreasing production of the whole, buttons, and sliced styles of pack. 1/ However, the latter styles of pack have been the most profitable packs historically. 2/ During the 1968/69 to 1971/72 period, only about 76 percent of the mushrooms packed in brine consisted of the stems-and-pieces style of pack, while about 24 percent were of the whole, buttons, or sliced styles of pack. During the 1975/76 marketing year, 83 percent of the mushrooms packed in brine consisted of the stems-and-pieces style of pack, while 17 percent were of the whole, buttons, or sliced style of pack.

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1/ Transcript of the Commission's hearing on mushrooms, investigation No. TA-201-10, p. 28.

2/ Prepared statement of Samuel Losito for the Commission's hearing on mushrooms, investigation No. TA-201-17, p. 3.

In an effort to improve their economic position, eight firms have petitioned and six have been certified as eligible to apply for trade adjustment assistance according to U.S. Department of Commerce officials (as of November 15, 1976). Of these six firms, one has submitted a formal proposal for its economic recovery to the Commerce Department's Economic Development Administration (EDA). Officials at EDA report that this plan was not approved as it did not meet their requirements, and presently the petitioner is attempting to restructure the plan. There have also been discussions between officials of EDA and two other certified firms concerning possible economic recovery plans, but no formal plan has been received from either firm.

In summary, as of November 15, 1976, no firm in the mushroom industry has received any form of adjustment assistance through the Department of Commerce.

Officials at the U.S. Department of Labor have indicated that, as of November 16, 1976, one petition had been received from a group of 130 workers in the mushroom industry requesting certification of eligibility for adjustment assistance. The petition of this group was denied.



## The Question of Imports as a Substantial Cause of Serious Injury

### U.S. Consumption

Apparent U.S. consumption of mushrooms (including fresh and processed) has been expanding for many years. <sup>1/</sup> During marketing years 1965/66 to 1975/76, annual consumption increased steadily from 184 million pounds (fresh-weight basis) to 408 million pounds (see table 7). The average annual rate of increase during the 11-year period was 8.3 percent. Annual percapita consumption also increased during the period, from 0.94 pound to 1.91 pounds.

During marketing years 1968/69 to 1972/73, about three-fourths of the domestic and imported mushrooms consumed (fresh-weight basis) in the United States were processed (primarily canned), and about one-fourth were in the fresh form. However, beginning with marketing year 1973/74, in which processed mushrooms accounted for only about 73 percent of the total

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<sup>1/</sup> Data on apparent U.S. consumption of mushrooms (including fresh and processed) is compiled on the basis of U.S. output of fresh mushrooms plus imports of processed mushrooms (on a fresh-weight basis) minus Canadian imports of U.S. mushrooms. U.S. exports of mushrooms to all other countries are negligible.

U.S. consumption of mushrooms, the share of U.S. consumption made up by processed mushrooms has steadily declined. In 1974/75, the percentage amounted to 68 percent, as indicated in table 29, and in 1975/76, processed mushrooms composed only 66 percent of total U.S. mushroom consumption. The canned mushroom botulism scare of 1973/74 and the extended marketing season for fresh mushrooms are believed to be among the factors contributing to the decreasing share of total mushroom consumption taken by processed mushrooms in recent years.

Table 29.--Mushrooms: U.S. consumption of domestic and imported processed and fresh product, marketing years 1970/71 to 1975/76

(In millions of pounds, fresh-weight basis)			
Marketing year (July 1-June 30)	Processed <u>1/</u>	Fresh	Total <u>2/</u>
1970/71-----	201	57	258
1971/72-----	236	66	302
1972/73-----	263	76	339
1973/74-----	259	95	354
1974/75-----	262	121	383
1975/76-----	268	140	408

1/ Consists of mushrooms which are canned, dried, frozen, freeze-dried, or used in soup.

2/ Production plus imports minus Canadian imports of U.S.-produced mushrooms (fresh-weight basis).

Source: Compiled from tables 7, 23, and 30 of this report.

Canned mushrooms.--Annual U.S. consumption of canned mushrooms increased irregularly from 84 million pounds (fresh-weight basis) in 1964/65 to 201 million pounds in 1975/76, as shown in table 20. The average annual rate of increase from 1964/65 to 1975/76 was 8.2 percent. During 1970/71 to 1975/76, per capita consumption (fresh-weight basis) is estimated to have increased from 0.77 pound to 0.94 pound.

U.S. imports of canned mushrooms increased about 105 percent from 1970/71 to 1975/76 (see table 20). U.S. consumption of only the domestic production, with the exception of 1971/72, remained about the same over the 1970/71 to 1974/75 period, averaging 116 million pounds. Consumption of all canned mushrooms was 43 million pounds higher in 1975/76 than it was in 1970/71, and imports accounted for all of that increase (see fig. 1).

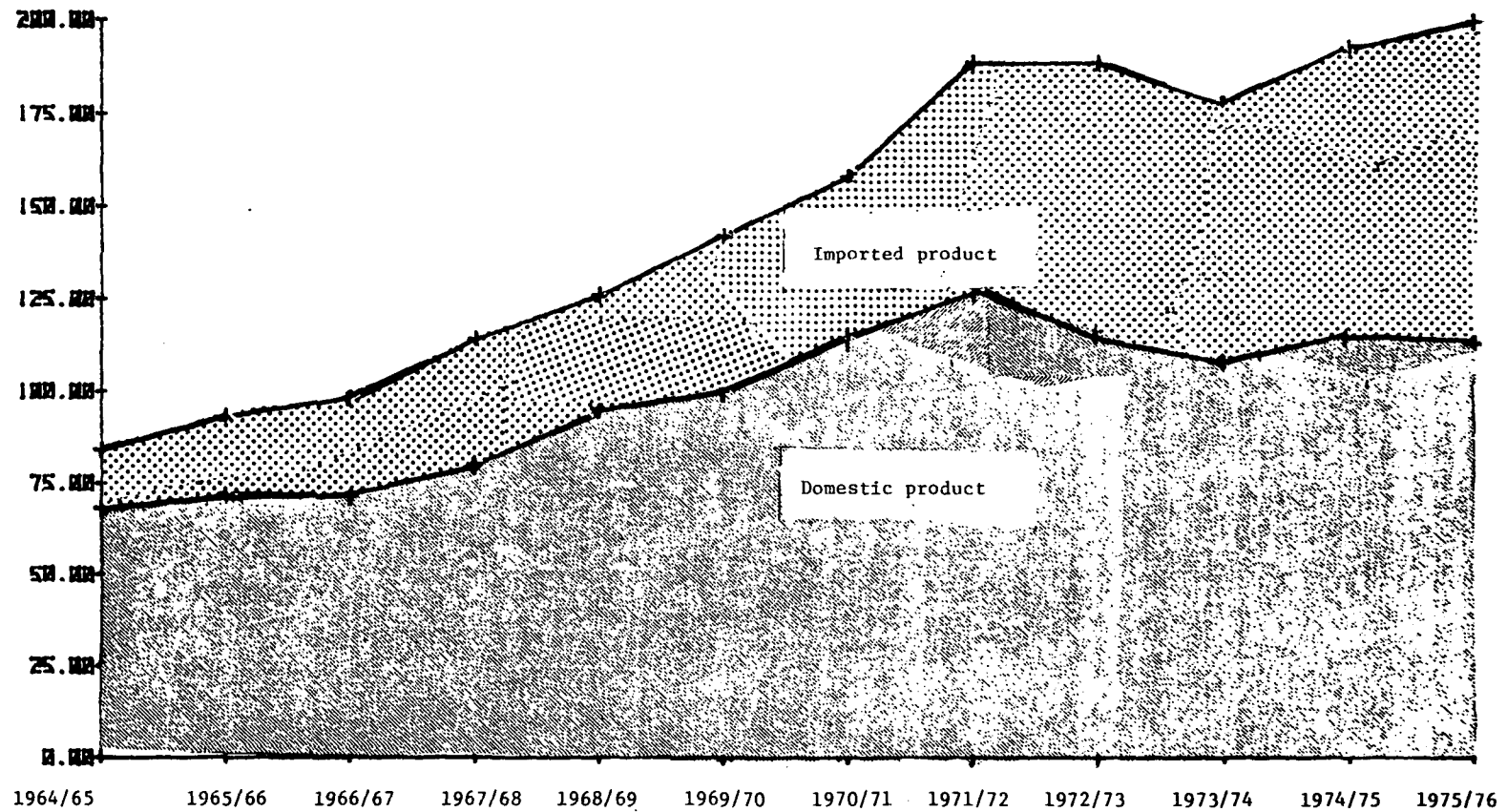
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Possible reasons for the small increase in domestically canned mushroom consumption after the 1971/72 marketing year are (1) changing consumer preferences in regard to canned mushrooms as opposed to fresh mushrooms, (2) FDA's investigation and discovery of botulism spores and/or toxin in canned mushroom products in 1973, and (3) displacement by increased imports.

Fresh, frozen, and dried mushrooms.--U.S. consumption of mushrooms in the fresh form increased without interruption during 1970/71 to

Figure 1.--Mushrooms, canned: Apparent U.S. consumption, marketing years 1964/65 to 1975/76.

Million  
pounds



Source: Based on data in table 20.

1975/76 at an average annual rate of 19.8 percent, from 57 million pounds to 141 million pounds (see table 30). During the same period, per capita consumption increased from 0.27 pound to 0.66 pound. During the marketing years 1966/67 to 1969/70, annual U.S. consumption of fresh mushrooms averaged about 52 million pounds. Table 30 shows U.S. production, exports, imports, and apparent consumption of fresh mushrooms in recent years.

Table 30.--Mushrooms, fresh: U.S. production for fresh-market sales, exports, imports, and apparent consumption, marketing years 1966/67 to 1975/76

(In thousands of pounds)					
Marketing year (July 1-June 30)	Production <u>1/</u>	Exports <u>2/</u>	Imports <u>3/</u>	Apparent consumption <u>4/</u>	
1966/67-----	41,951	5/	3	41,954	
1967/68-----	47,611	5/	3	47,614	
1968/69-----	56,024	5/	4	56,028	
1969/70-----	62,115	5/	145	62,260	
1970/71-----	58,269	1,399	316	57,186	
1971/72-----	66,323	626	354	66,051	
1972/73-----	76,728	616	80	76,192	
1973/74-----	102,293	6,478	231	96,046	
1974/75-----	126,118	4,430	0	121,688	
1975/76-----	142,121	1,337	6	140,790	

1/ Sold through fresh-market outlets.

2/ Compiled from official Canadian import statistics. U.S. exports of mushrooms to other countries are negligible.

3/ In mid-1974, the Court of Customs Appeals found that imported frozen whole mushrooms were mushrooms otherwise prepared or preserved and not dutiable as fresh mushrooms, as they had been previously.

4/ Production plus imports minus exports.

5/ Marketing-year data are not available.

Source: Production data compiled from official statistics of the U.S. Department of Agriculture; imports compiled from official statistics of the U.S. Department of Commerce; exports compiled as noted.

Note.--The ratios of imports to apparent consumption and of imports to production are negligible (less than 1 percent).

Frozen mushrooms have gained in popularity in recent years, but U.S. consumption of frozen mushrooms has been growing much more slowly than that of canned and fresh mushrooms, largely because the product tends to be significantly higher priced and requires refrigeration after purchase. U.S. consumption of frozen mushrooms is believed to have ranged from 2 million to 3 million pounds annually in recent years.

Annual U.S. consumption of dried mushrooms ranged from 11 million pounds (fresh-weight basis) to 13 million pounds during 1970/71 to 1975/76; consumption increased only about 10 percent during the last decade. Most of the dried product was supplied from foreign sources (see table 14.) Official annual domestic production data are not available on dried mushrooms, but trade sources indicate that such production has averaged about 1 million pounds (fresh-weight basis) in the last few years.

Factors affecting consumption.--Many factors have contributed to the increased consumption of mushrooms, namely (1) increased availability of fresh mushrooms in many areas of the United States, resulting from the location of new growing facilities closer to nontraditional markets and promotional work by the American Mushroom Institute, the Mushroom Canners Committee, and others, (2) increased availability of fresh mushrooms during the summer months, (3) an increase in per capita disposable income, (4) an increase in the U.S. population, (5) the growing popularity of mushrooms among weight-conscious consumers, and (6) prices, which until very recently, were increasing much more slowly than the prices of most other categories of fresh and processed vegetables.

In 1973, the FDA investigated canned mushroom products for the existence of botulism and found botulism spores and/or toxins to be present in the product of several processors, both domestic and foreign. It is generally acknowledged in the mushroom industry that the botulism scare of 1973/74 affected consumer confidence in canned mushroom products. 1/ U.S. Department of Agriculture statistics reveal that the volume of fresh mushroom sales to domestic processors peaked in 1972/73, remained about the same during 1973/74, and then declined about 2 percent during 1974/75 and about 3 percent in 1975/76 (see table 23). Data collected by the Commission reveal that the volume of U.S. sales of domestically canned mushrooms peaked at 127 million pounds (fresh-weight basis) in 1971/72, declined for the next 2 years, reaching a low of 108 million pounds in 1973/74, and then increased to higher levels the last 2 years--116 million pounds in 1974/75 and 113 million pounds in 1975/76. U.S. imports of canned mushrooms reached 74 million pounds (fresh-weight basis) in 1972/73, decreased to 70 million pounds in 1973/74, and then increased to 77 million pounds and 88 million pounds in 1974/75 and 1975/76, respectively (see table 20).

Subsequent to the botulism scare of 1973/74, the Mushroom Processors Association of Kennett Square, Pa., developed a canning-process certification program designed to make certain that botulism problems do not recur and to give consumers positive assurance in the form of a seal of quality on each mushroom container. The processors licensed to display this seal on their

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1/ For more information on the botulism scare, refer to the Commission report Mushrooms . . ., USITC Publication 761, March 1976.

containers are thoroughly inspected and are found to meet and operate continuously under both the manufacturing requirements of the Food and Drug Administration and supplemental requirements of the Mushroom Processors Association. The program includes frequent, unannounced inspections of plants to insure adherence to the processing standards. By January 1976, five canners had been certified to use the seal. Since then, however, a disagreement has developed among members of the Mushroom Processors Association because of the certification of imported products. As a result of this dispute, only three canners are presently displaying the seal.



Prices received by U.S. producers

Influence of grade on price.--The prices of mushrooms, whether fresh or canned, are greatly influenced by their grade. The U.S. Department of Agriculture has a classification system that embraces three grades, No. 1, No. 2, and No. 3 (also known as utility or culls). <sup>1/</sup> The No. 1 grade has the best appearance, the mildest flavor, and the highest price. The No. 2 grade is intermediate. The No. 3 grade, the most mature of the three, is lowest in price, the least attractive in appearance, and, in the opinion of many persons, the best in taste.

In the United States, the majority of the growers' output of the No. 1 grade goes to the fresh market. However, generally, the No. 1 mushrooms that go to the fresh market have a more attractive color and are larger than the No. 1 mushrooms sold to processors.

The principal styles of pack of canned mushrooms are stems and pieces, whole buttons, and sliced buttons. In the United States, the general practice is to use the No. 1 grade of fresh mushrooms for canning whole and sliced buttons. When this grade is processed, the firmness of the mushroom keeps the veil (where the cap joins the stem) closed, thus maintaining the attractive appearance of the mushroom. With No. 2 and No. 3 grades, the washing and heating (to 170° F. or more) cause the veil to open, and the gill material to be exposed, detracting from the

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<sup>1/</sup> In the trade, a mixture of two or more grades is referred to as bed run.

appearance of the product. Consequently, the No. 2 and No. 3 grades are used for cutting into stems and pieces.

Canned mushrooms are available in retail and institutional sizes. The retail sizes are used predominantly in households; the institutional sizes are used predominantly in restaurants, hotel dining rooms, and other establishments where mass feeding occurs. The principal retail size is the 4-ounce can. The principal institutional size is the No. 10 (or 68-ounce) can. Some domestically canned buttons in retail-size containers are a mixture of No. 1 and No. 2 grades that are not uniform in size. In the institutional size, the diameter of the button is marked on the case because uniformity is a "must" in this size of pack.

Fresh mushrooms.--A long-range time series of prices received by growers from processors for clean-cut mushrooms is available from the Pennsylvania Department of Agriculture. The price data are for mushrooms grown in the Kennett Square and Temple areas of Pennsylvania. Clean-cut mushrooms have their roots cut off by the growers; therefore, they are higher in price than the so-called pulled mushrooms with their roots attached. A price series published by the Pennsylvania Department of Agriculture on the latter group was discontinued in late 1974.

Table 31 shows the prices that processors have been paying to growers for the months October to May from 1969/70 to 1976/77, by market years. The bulk of the mushroom crop is sold to canners in October through May;

Table 31.--Mushrooms for processing: Prices received by growers for clean-cut mushrooms in the Kennett Square and Temple areas of Pennsylvania, by months, marketing years 1969/70 to 1976/77

(In cents per pound)									
Month	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75 <u>1/</u>	1975/76 <u>1/</u>	1976/77 <u>1/</u>	
October-----	34	41	46	37	30	<u>2/</u>	43	<u>3/</u>	69
November-----	35	42	47	36	34	<u>4/</u> 37	45	<u>5/</u>	68
December-----	35	42	48	36	33	38	49	<u>2/</u>	
January-----	35	42	48	38	34	34	50	<u>2/</u>	
February-----	35	44	46	38	34	32	56	<u>2/</u>	
March-----	35	45	44	38	34	34	57	<u>2/</u>	
April-----	37	45	41	37	34	34	58	<u>2/</u>	
May-----	37	45	41	35	35	35	60	<u>2/</u>	
Average-----	35	43	45	37	34	<u>6/</u> 35	52		69

1/ Arithmetic average of prices published separately for No. 1 and No. 2 grades.

2/ Not available.

3/ October 25-29, 1976.

4/ November 25-29, 1974.

5/ November 1-5, and 8-12, 1976.

6/ Applicable also if calculated by using the price information available for June (not shown in table).

Source: Pennsylvania Department of Agriculture, Mushroom Market News.

Note.--Prices do not include precooling, handling, transportation, containers, or brokerage. The Pennsylvania Department of Agriculture did not report prices for June to September of the years shown, except in 1974/75 when price information was available for June.

off-season data are not available. The annual average price for clean-cut mushrooms developed as follows during the period observed: It increased from 35 cents per pound in 1969/70 to 45 cents per pound in 1971/72, declined subsequently, and increased again to 35 cents per pound in 1974/75, as it was 5 years before. Since then, however, the price has doubled; in 1975/76 it jumped to 52 cents per pound, and in October 1976, it was 69 cents per pound.

In the past 2 years the Pennsylvania Department of Agriculture recorded prices of clean-cut mushrooms to be processed separately for grades 1 and 2 and utility (spots and opens) mushrooms. Moreover they began publishing a separate series on prices of clean-cut mushrooms in fresh-market transactions. Table 32 shows the prices received by growers from processors separately for grades 1 and 2, indicating that the difference between the two qualities ranged from 4 cents in March 1974/75 to 11 cents in November 1975/76.

Table 32.--Mushrooms for processing: Prices received by growers for No. 1 clean-cut and No. 2 clean-cut (mixed) mushrooms in Kennett Square and Temple areas of Pennsylvania, by months, November 1974-June 1975, October 1975-May 1976, and October and November 1976

(In cents per pound)			
Marketing year and month	No. 1		No. 2
1974/75:			
November <u>1</u> /-----	42	:	33
December-----	42	:	35
January-----	37	:	31
February-----	35	:	30
March-----	36	:	32
April-----	<u>2</u> / 37	:	<u>2</u> / 32
May-----	<u>2</u> / 39	:	<u>2</u> / 32
June-----	<u>2</u> / 39	:	<u>2</u> / 33
1975/76:			
October-----	<u>2</u> / 47	:	<u>2</u> / 39
November-----	<u>2</u> / 51	:	<u>2</u> / 40
December-----	<u>2</u> / 53	:	<u>2</u> / 46
January-----	<u>2</u> / 55	:	<u>2</u> / 46
February-----	<u>2</u> / 60	:	<u>2</u> / 52
March-----	<u>2</u> / 61	:	<u>2</u> / 53
April-----	<u>2</u> / 62	:	<u>2</u> / 55
May-----	<u>2</u> / 64	:	<u>2</u> / 56
1976/77:			
October <u>3</u> /-----	<u>2</u> / 72	:	<u>2</u> / 65
November <u>4</u> /-----	<u>2</u> / 71	:	<u>2</u> / 65

1/ November 25-29, 1974. This is the first period for which separate data on No. 1 and No. 2 mushrooms are available.

2/ Commencing with April 1975, separate data have been reported for Kennett Square and Temple. In the interest of continuity of the price series, the Commission's staff has averaged the price data for the 2 areas.

3/ October 25-29, 1976.

4/ November 1-5 and 8-12, 1976.

Source: Pennsylvania Department of Agriculture, Mushroom Market News.

Note.--Prices do not include precooling, handling, transportation, containers, or brokerage. The Pennsylvania Department of Agriculture does not report prices for July-September; these months are off-season.

Price relationship between domestic and imported canned mushrooms

In the Commission's previous investigations in 1973 and 1976, prices were obtained from U.S. producers, U.S. importers, and canner-importers on domestically canned mushrooms and those canned abroad. Data on net selling prices were compiled on the basis of weighted averages, by principal product descriptions, for each 3-month period from the first quarter of 1969 through the last quarter of 1975. The product descriptions were (1) stems and pieces in 4-ounce cans, (2) slices and/or buttons in 4-ounce cans, (3) stems and pieces in No. 10 (or 68-ounce) cans, and (4) slices and/or buttons in No. 10 cans. For the purposes of the current investigation, prices had been requested on the same basis as before. Data are shown in the present report for the first three quarters and October 1976.

Prices of canned mushrooms exhibited some measure of both upward and downward movement from 1969 to date in all product categories. They generally peaked first in 1971, declined thereafter, bottomed out in 1973, and subsequently began a new upward trend. <sup>1/</sup> In 1975, U.S. product price climbed very fast, exceeding the prices of imported canned mushrooms by the end of the year in all four product groups. However, by October 1976 the gap between domestic and imported products narrowed for retail sizes, and for institutional sizes U.S. prices dipped below the prices of some imported products. There was only one product category, that of slices and/or buttons in retail (4-ounce) cans, in which domestic product prices were consistently above prices of imported products throughout the entire period observed.

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<sup>1/</sup> For more information relating to prices prior to 1975, refer to the Commission's report Mushrooms . . ., USITC Publication 761, March 1976.

Conversely, for slices and/or buttons in institutional (68-ounce) sizes from 1969 to 1972, U.S. prices were consistently the lowest. For stems and pieces in both the institutional and retail containers, price relationships between the three principal suppliers have changed throughout the period. Tables 33 and 34 and figures 2, 3, 4, and 5 compare the prices of the three principal suppliers for each of the four product groups, and a separate analysis of these comparisons for each category is given below.

Stems and pieces in 4-ounce cans.--In this product category, domestic, South Korean, and Taiwanese canned mushrooms are not fully comparable since various suppliers mix grades 1, 2, and 3 in different combinations, therefore, a clear-cut ranking of quality between the three sources could not be established.

U.S. prices were generally higher than Taiwanese and South Korean prices in periods of price increases (1969 through the third quarter of 1971) and fell below the prices of imported products during the following decline in 1972. Since the third quarter of 1974, U.S. prices have been consistently the highest, and since the second quarter of 1973, South Korean prices have been consistently the lowest. In 1975 prices of products from all three sources exceeded their previous peaks, and they continued to rise in 1976. However, the significant gap between the prices of domestic and imported cases virtually disappeared in October 1976 when U.S. prices slightly declined. In October 1976, the weighted average U.S. price was \$9.37 per case, the Taiwanese, \$9.22, and the South Korean, \$9.01 (see table 33 and fig. 2).

Table 33.--Mushrooms, canned: Average prices per case of 24/4-ounce cans of mushroom stems and pieces and slices and/or buttons, received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76

Period	Stems and pieces from--			Slices and buttons from--		
	United States	Taiwan	Korea	United States	Taiwan	Korea
1969:						
January-March-----	\$4.79	\$4.57	\$4.40	\$7.11	\$5.16	<u>1/</u>
April-June-----	4.67	4.47	4.61	7.10	5.23	<u>1/</u>
July-September-----	4.74	4.54	4.64	7.14	5.56	<u>1/</u>
October-December-----	4.71	4.58	4.63	6.94	5.79	<u>1/</u>
1970:						
January-March-----	4.83	4.76	4.78	7.35	5.70	<u>1/</u>
April-June-----	5.08	4.77	4.88	7.39	5.73	<u>1/</u>
July-September-----	5.32	5.06	4.93	7.53	6.05	<u>1/</u>
October-December-----	5.37	5.17	4.98	7.61	6.20	<u>1/</u>
1971:						
January-March-----	5.69	5.57	5.37	7.78	6.24	<u>1/</u>
April-June-----	5.72	5.81	5.45	8.06	6.11	<u>1/</u>
July-September-----	5.84	5.78	5.55	8.08	6.40	<u>1/</u>
October-December-----	5.80	5.87	5.66	7.88	6.86	<u>1/</u>
1972:						
January-March-----	5.62	5.82	5.65	7.62	6.85	\$7.10
April-June-----	5.36	5.83	6.00	7.24	6.87	6.70
July-September-----	5.32	5.76	5.70	7.29	6.80	5.77
October-December-----	5.07	5.46	5.70	7.39	6.88	5.85
1973:						
January-March-----	( <u>2/</u> 4.83 : <u>2/</u> 5.39 : <u>2/</u> 5.34 : <u>2/</u> 7.46 : <u>2/</u> 6.45 : <u>2/</u> 6.29					
April-June-----	( <u>3/</u> 5.42 : <u>3/</u> 5.45 : <u>3/</u> 5.13 : <u>3/</u> 7.35 : <u>3/</u> 6.76 : <u>3/</u> 6.28					
July-September-----	5.45 : 5.36 : 5.09 : 7.42 : 6.07 : 5.90					
October-December-----	5.21 : 5.30 : 5.07 : 7.39 : 6.75 : 5.98					
1974:						
January-March-----	5.36 : 5.23 : 4.61 : 7.59 : 6.53 : 5.95					
April-June-----	5.46 : 5.41 : 5.12 : 7.50 : 6.77 : 6.15					
July-September-----	5.56 : 5.84 : 5.23 : 7.48 : 7.16 : 6.24					
October-December-----	5.72 : 5.96 : 5.71 : 7.68 : 7.29 : 6.43					
1975:						
January-March-----	6.10 : 6.06 : 5.63 : 8.06 : 7.62 : 6.71					
April-June-----	6.25 : 6.09 : 5.67 : 8.27 : 7.98 : 6.70					
July-September-----	6.18 : 6.07 : 5.71 : 8.17 : 7.70 : 7.57					
October-December-----	6.39 : 6.15 : 5.91 : 8.28 : 7.61 : 7.03					
1976:						
January-March-----	6.77 : 6.32 : 6.04 : 8.83 : 7.34 : 7.36					
April-June-----	8.33 : 7.06 : 6.65 : 10.19 : 9.35 : 8.25					
July-September-----	8.76 : 7.70 : 7.71 : 10.72 : 9.43 : 9.58					
October-December <u>4/</u> -----	9.44 : 8.47 : 8.30 : 11.32 : 10.04 : 9.89					
	9.37 : 9.22 : 9.01 : 11.54 : 11.45 : 10.61					

1/ Not available.

2/ Computed during investigation No. 332-72.

3/ Computed during investigation No. TA-201-10.

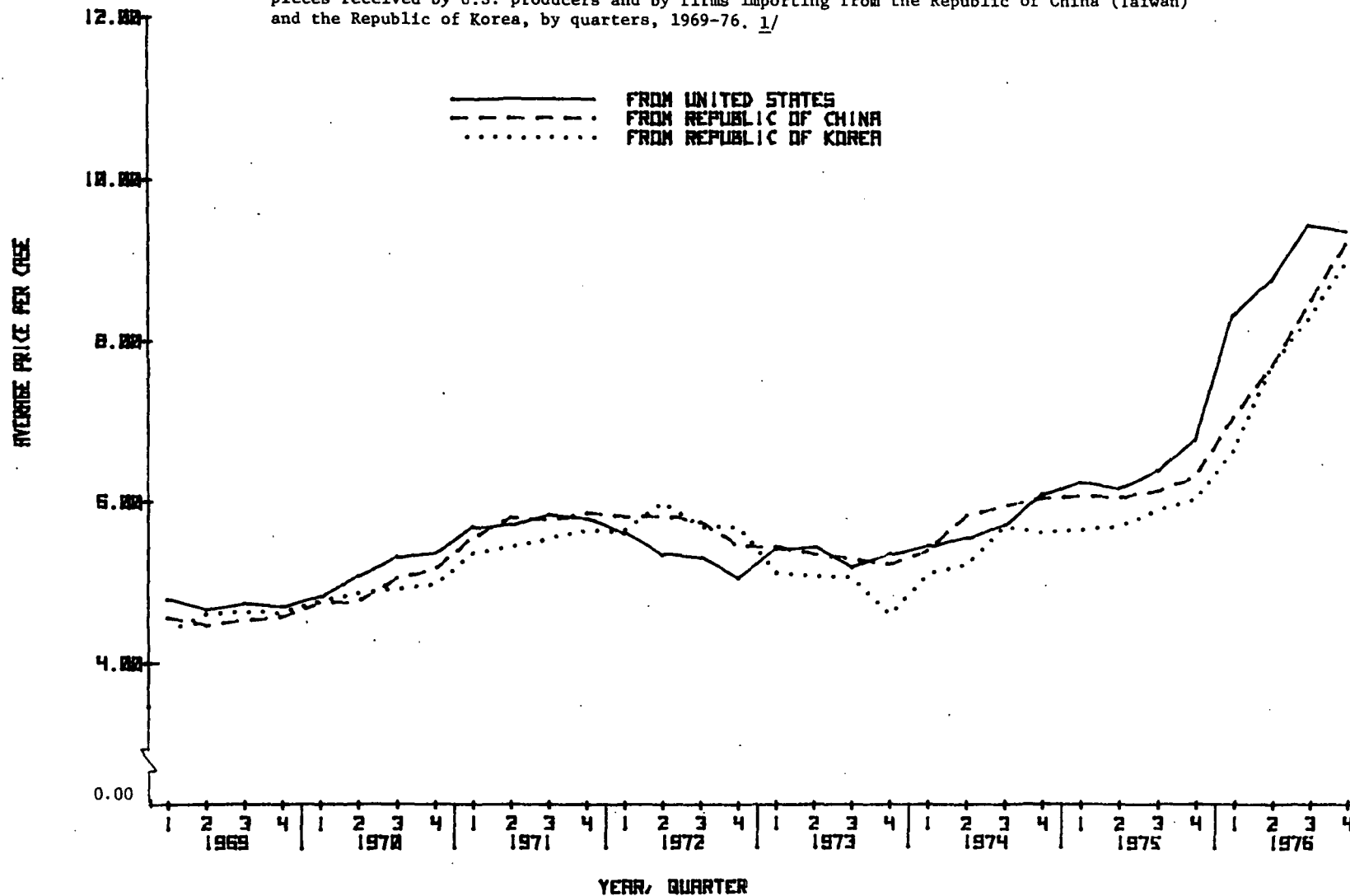
4/ Data for the fourth quarter of 1976 represent October prices only.

Source: Compiled from data submitted to the U.S. International Trade Commission (both under its present name and under its former name--U.S. Tariff Commission) by domestic canners and importers.

Note.--Prices are f.o.b. point of shipment of U.S. canner and U.S. importer and net of all discounts, allowances, brokers' fees, and freight paid by canner or importer.



Figure 2.--Mushrooms, canned: Average prices per case of 24/4-ounce cans of mushroom stems and pieces received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76. 1/



1/ Data for the fourth quarter of 1976 represent October prices only.

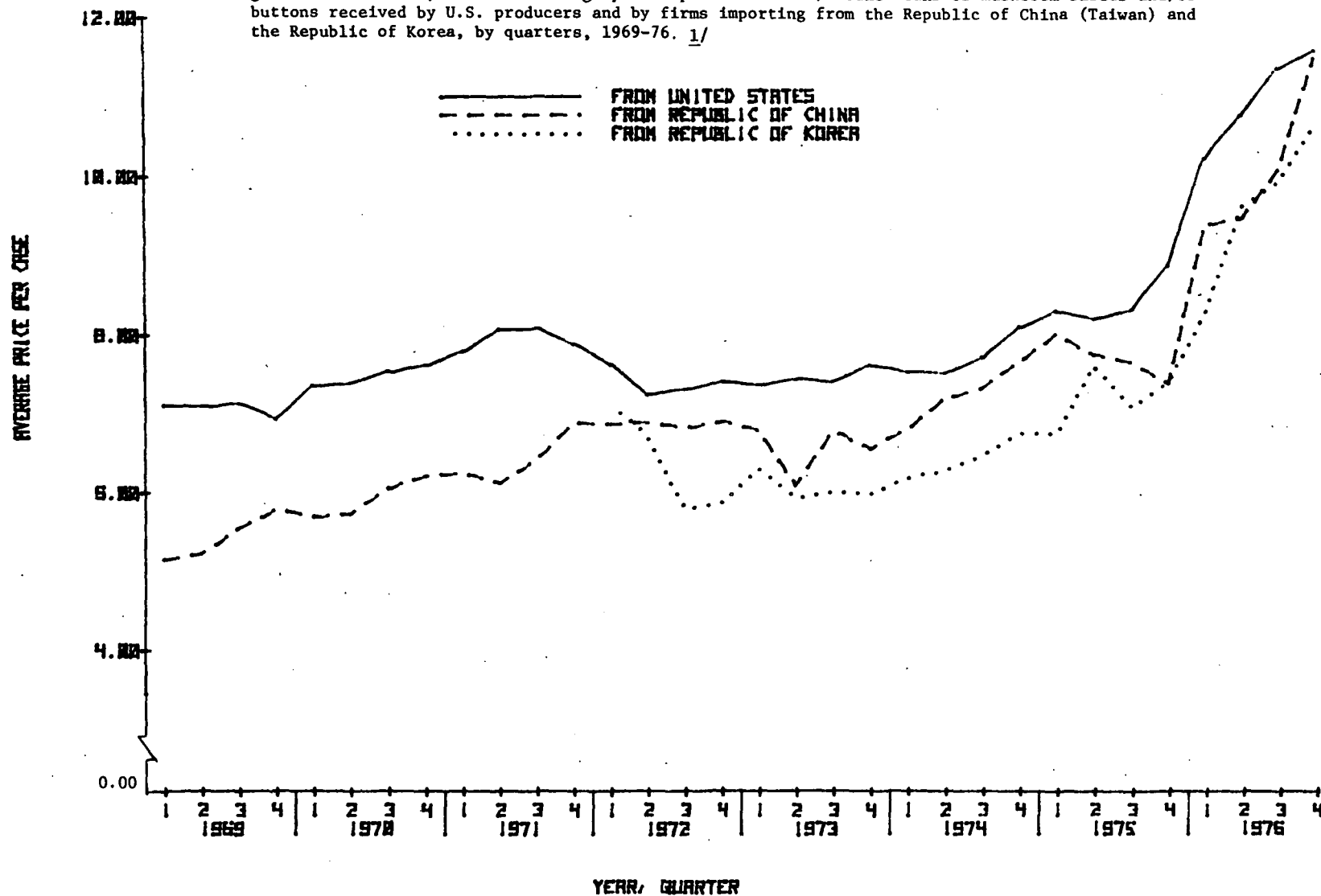
Source: Based on data in table 33.

Slices and/or buttons in 4-ounce cans.--Both domestic and South Korean cans of mushrooms include No. 1 and No. 2 grades, whereas Taiwanese imports consist only of No. 1 grade mushrooms.

In this product category, U.S. prices have been consistently the highest throughout 1969-76. South Korean prices have been the lowest since the second quarter of 1972. However, the substantial price differential between domestic and imported products of the earlier years was somewhat reduced in 1972-74. In 1975 and 1976, the rapid increase in the prices of domestic products was followed with a time lag by increases in the prices of the imported products. In October 1976 U.S. suppliers charged \$11.54 per case, importers from Taiwan, \$11.45, and importers from South Korea, \$10.61 (see table 33 and fig. 3).

Stems and pieces in No. 10 cans.--In 1969-76 both domestic and Taiwanese prices had very pronounced and similar patterns. Prices peaked in the second half of 1971 for both (exceeding \$23 per case); the prior increase of the Taiwanese price followed the increase of the U.S. price with some lag. In the subsequent period of decline, Taiwanese prices dropped significantly below U.S. prices. In July-September of 1973 the Taiwanese price was \$17.11, i.e., 9 percent lower than the domestic price. The gap subsequently dwindled but reappeared in 1975, resulting from sharp increases in the U.S. price. In October 1976, however, prices of the imported cans caught up with the domestic price; in fact the U.S. price (\$35.25 per case) was slightly below those of the imported cans (see table 34 and fig. 4).

Figure 3.--Mushrooms, canned: Average prices per case of 24/4-ounce cans of mushroom slices and/or buttons received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76. 1/



1/ Data for the fourth quarter of 1976 represent October prices only.

Source: Based on data in table 33.

Table 34.--Mushrooms, canned: Average prices per case of 6/No. 10 cans 1/ of mushroom stems and pieces and slices and/or buttons, received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76

Period	Stems and pieces from--			Slices and/or buttons from--		
	United States	Taiwan	Korea	United States	Taiwan	Korea
1969:						
January-March-----	\$15.59	\$16.95	<u>2/</u>	\$17.62	\$19.60	<u>2/</u>
April-June-----	15.71	16.99	<u>2/</u>	17.48	19.87	<u>2/</u>
July-September-----	16.12	16.77	<u>2/</u>	17.68	20.39	<u>2/</u>
October-December---	16.55	17.19	<u>2/</u>	17.87	20.29	<u>2/</u>
1970:						
January-March-----	17.98	17.58	<u>2/</u>	18.51	20.91	<u>2/</u>
April-June-----	18.63	17.70	<u>2/</u>	18.92	21.28	<u>2/</u>
July-September-----	19.14	18.13	<u>2/</u>	19.89	22.42	<u>2/</u>
October-December---	20.72	18.59	<u>2/</u>	19.98	22.29	<u>2/</u>
1971:						
January-March-----	22.29	20.41	<u>2/</u>	20.65	24.44	<u>2/</u>
April-June-----	22.91	21.29	<u>2/</u>	22.06	25.66	<u>2/</u>
July-September-----	23.11	21.59	<u>2/</u>	22.74	26.48	<u>2/</u>
October-December---	22.78	23.07	<u>2/</u>	22.72	26.73	<u>2/</u>
1972:						
January-March-----	22.77	22.39	<u>2/</u>	22.08	25.02	<u>2/</u>
April-June-----	22.09	21.85	<u>2/</u>	21.09	24.55	<u>2/</u>
July-September-----	21.44	21.26	\$19.71	19.15	23.57	<u>2/</u>
October-December---	19.60	19.00	19.85	18.72	22.90	<u>2/</u>
1973:						
January-March-----	<u>3/</u> 19.47 : <u>3/</u> 19.55 : <u>3/</u> 19.07 : <u>3/</u> 20.80 : <u>3/</u> 21.97 : <u>2/</u>					
April-June-----	<u>4/</u> 20.09 : <u>4/</u> 17.83 : <u>4/</u> 19.49 : <u>4/</u> 21.98 : <u>4/</u> 18.77 : <u>4/</u> 22.00					
July-September-----	19.50	17.69	19.37	20.78	21.42	22.52
October-December---	18.81	17.11	19.62	19.59	21.29	23.00
1974:						
January-March-----	19.10	18.27	19.13	20.51	20.88	22.67
January-March-----	19.16	18.17	19.97	22.06	21.41	23.59
April-June-----	19.21	19.95	20.04	19.41	22.56	24.52
July-September-----	20.27	20.07	21.05	21.47	21.30	24.66
October-December---	21.77	21.09	21.54	22.52	21.88	25.01
1975:						
January-March-----	21.23	21.06	21.87	22.39	24.83	25.44
April-June-----	21.74	21.52	21.89	22.94	23.88	26.16
July-September-----	22.24	21.22	22.42	23.96	22.74	26.27
October-December---	24.91	22.39	22.26	26.57	23.57	26.08
1976:						
January-March-----	28.87	26.52	25.64	33.10	30.27	25.39
April-June-----	32.12	28.57	29.63	35.20	34.55	33.12
July-September-----	34.83	32.26	32.86	37.55	34.62	39.00
October-December <u>5/-</u>	35.25	36.42	35.48	38.64	36.14	40.00

1/ A No. 10 can holds 68 ounces of mushrooms.

2/ Not available.

3/ Computed during investigation No. 332-72.

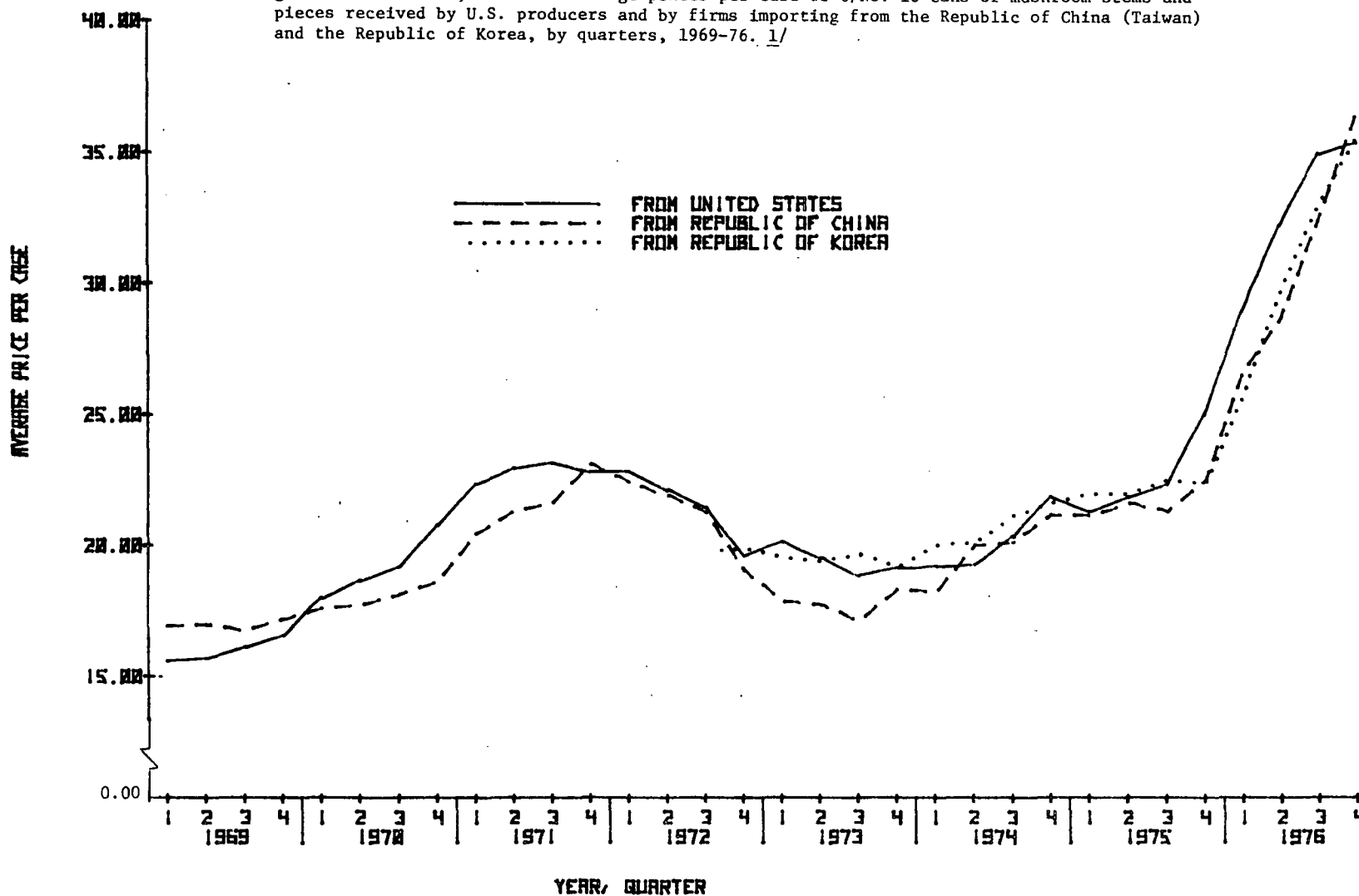
4/ Computed during investigation No. TA-201-10.

5/ Data for the fourth quarter of 1976 represent October prices only.

Source: Compiled from data submitted to the U.S. International Trade Commission (both under its present name and under its former name--U.S. Tariff Commission) by domestic canners and importers.

Note.--Prices are f.o.b. point of shipment of U.S. canners and U.S. importer to customer and net of all discounts, allowances, brokers' fees, and freight paid by canner or importer.

Figure 4.--Mushrooms, canned: Average prices per case of 6/No. 10 cans of mushroom stems and pieces received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76. <sup>1/</sup>



<sup>1/</sup> Data for the fourth quarter of 1976 represents October prices only.

Source: Based on data in table 34.

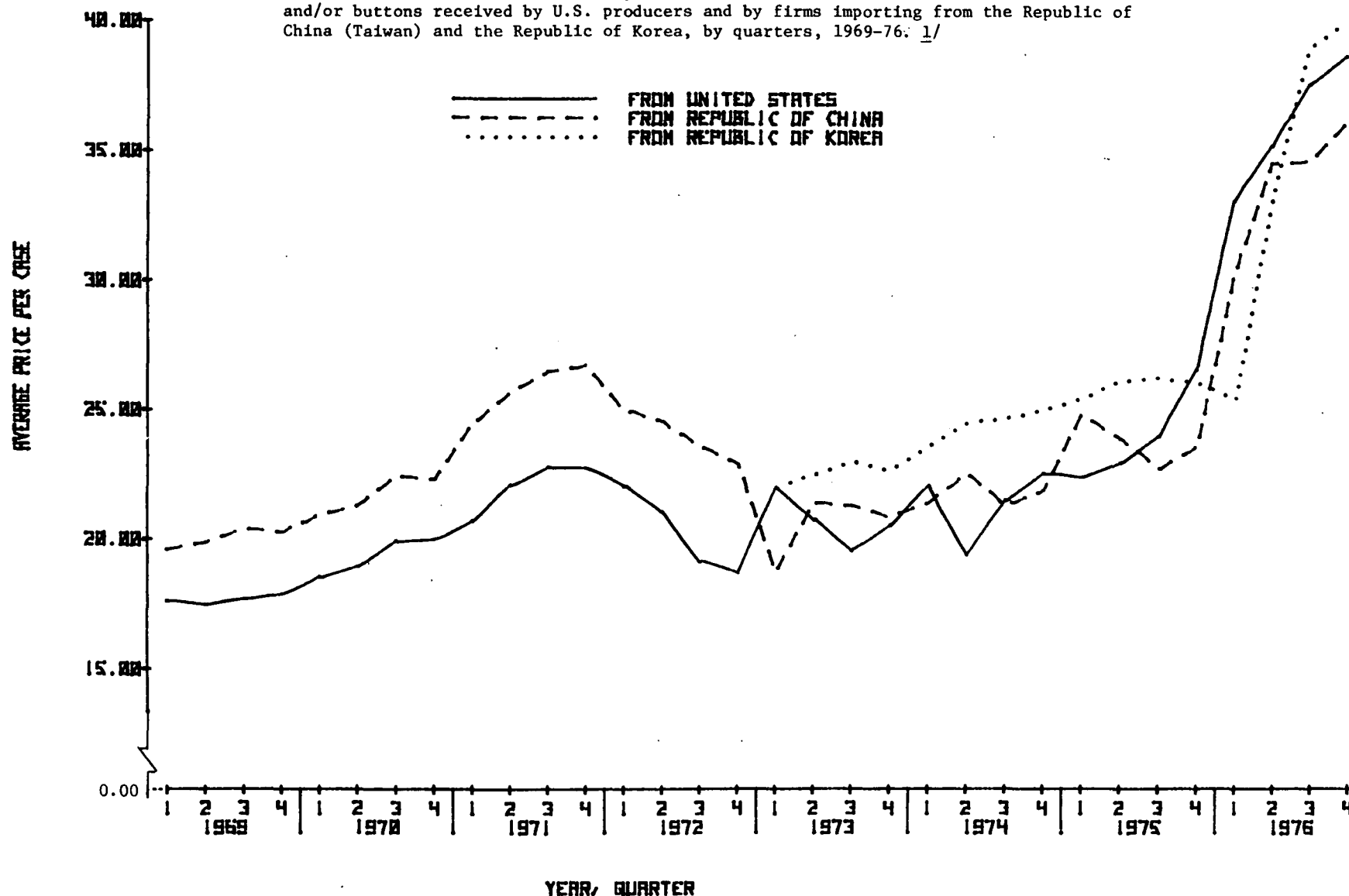
Slices and/or buttons in No. 10 cans.--Prices of domestic cans followed the familiar pattern for all canned mushroom products; they peaked in the third quarter of 1971, declined thereafter generally through 1972, and climbed again subsequently. Taiwanese prices dipped for the first time below U.S. prices in the first quarter of 1973. Thereafter, domestic and Taiwanese prices were alternately lower. From the second half of 1975, however, the U.S. prices consistently exceeded the Taiwanese.

South Korean prices, available only from 1972, were consistently the highest at first, dipped below both domestic and Taiwanese prices in the first half of 1976, and became the highest once more in the second half of the year. In October 1976, the U.S. price was \$38.64 per case, the Taiwanese was \$36.14, and the South Korean was \$40.00 (see table 34 and fig. 5).

Other price relationships and unit values of domestic and imported canned mushrooms

The wholesale price index for mushrooms in 4-ounce cans, as shown in published statistics of the U.S. Department of Labor (see table 35) indicate an almost continuous increase in the prices of canned mushrooms on the U.S. market, except for 1973. Between 1967 and 1974 the increase in the average wholesale price of canned mushrooms (15 percent) lagged significantly behind that for all canned vegetables and juices (42 percent). However, owing to a steep increase in the prices of canned mushrooms in 1976, by October the wholesale prices of canned mushrooms were 72 percent higher than in 1967, whereas the prices of all canned vegetables and juices were only 67 percent higher.

Figure 5.--Mushrooms, canned: Average prices per case of 6/No. 10 cans of mushroom slices and/or buttons received by U.S. producers and by firms importing from the Republic of China (Taiwan) and the Republic of Korea, by quarters, 1969-76: 1/



1/ Data for the fourth quarter of 1976 represents October prices only.

Source: Based on data in table 34.

Table 35.--Indexes of U.S. wholesale prices for canned mushrooms and other selected categories, 1967-75 and January-October 1976

(1967=100.0)				
Period	: All : processed : fruits and : vegetables	: Canned : vegetables : and juices	: Canned : mushrooms : (4-oz. cans)	
1967-----	100.0	100.0	100.0	
1968-----	106.5	101.3	102.2	
1969-----	108.1	100.5	102.9	
1970-----	110.6	105.1	107.0	
1971-----	114.3	107.8	113.7	
1972-----	119.7	110.7	115.1	
1973-----	129.6	117.9	111.8	
1974-----	154.6	142.2	115.3	
1975-----	169.8	163.1	124.4	
1976 (January-October)--	173.7	166.8	171.6	

Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Bureau of Labor Statistics.



The profitability of the U.S. canners' operation depends in large measure on two factors: (1) the prices of fresh mushrooms, and (2) the selling prices of imported canned mushrooms. Price trends of fresh mushrooms and trends of unit values based on sales of all domestic and all imported canned mushrooms (indicators of price trends) are shown in table 36 and figure 6.

In 1972 and marketing year 1972/73 all prices dropped. Fresh mushroom prices remained depressed until their rapid recovery began in marketing year 1975/76 and continued in the fall of 1976 by virtually doubling their previous stagnant level of several years. The prices of domestic canned mushrooms in 1975 showed their first significant increase in several years. The real surge in the price of domestic cans occurred in January-October 1976, reflecting, in large part, the higher prices of fresh mushrooms.

According to a recent trade journal article, <sup>1/</sup> high prices for fresh mushrooms during the current year have proved a boom for growers. Processors, however, experienced reduced profit margins because their raw material costs have increased substantially. This same article states that packers traditionally suffer during years of high prices for fresh mushrooms, especially packers who are not involved in growing operations.

Data indicate that imported cans sold on the average somewhat below domestic cans in all years observed, except in 1971 when prices were the same. In 1972 the margin of underselling exceeded 10 percent, but in the other years it was only 3 to 5 percent.

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<sup>1/</sup> The Packer, Saturday, Nov. 6, 1976, p. 23a.

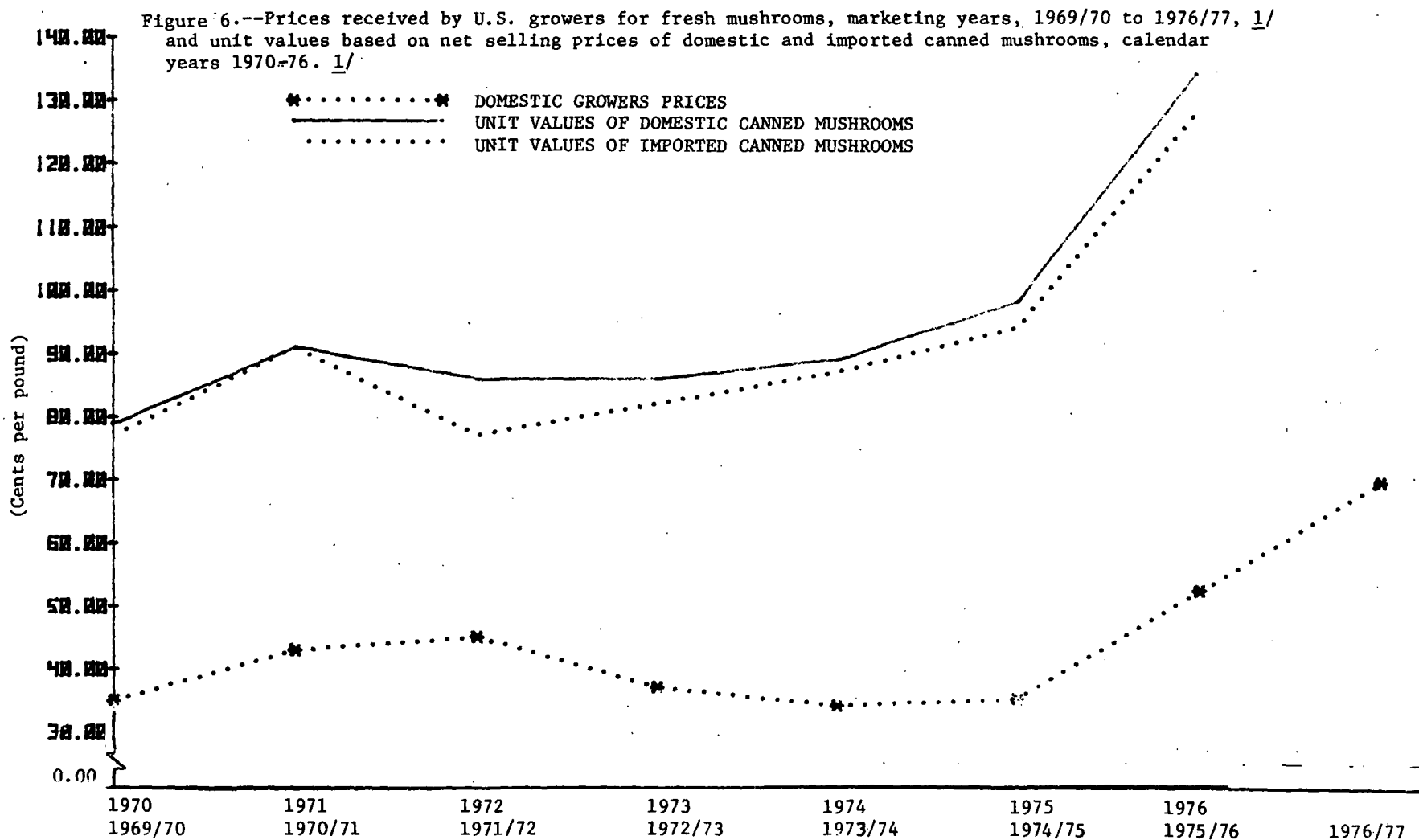
Table 36.--Prices received by U.S. growers for fresh mushrooms, marketing years 1969/70 to 1976/77; and unit values based on net selling prices of domestic and imported canned mushrooms, calendar years 1970-76

(In dollars per pound)					
Marketing year	:Domestic growers':		: Unit values of sales :		Calen- dar year
	: price for	:	: of canned mushrooms :		
	: clean-cut	:	: Domestic : Imported :		
	: fresh mushrooms	:	: for processing :		
1969/70-----:		\$0.35 :	\$0.79 :	\$0.77 :	1970
1970/71-----:		.43 :	.91 :	.91 :	1971
1971/72-----:		.45 :	.86 :	.77 :	1972
1972/73-----:		.37 :	.86 :	.82 :	1973
1973/74-----:		.34 :	.89 :	.87 :	1974
1974/75-----:		.35 :	.98 :	.94 :	1975
1975/76-----:		.52 :	1.34 :	1.28 :	<u>1/</u> 1976
1976/77 <u>2/</u> ----		.69 :	:	:	
:		::	:	:	

1/ January-October 1976.

2/ November 1-5 and 8-12, 1976.

Source: Compiled from data submitted to the U.S. International Trade Commission and from the Mushroom Market News, published by the Pennsylvania Department of Agriculture.



1/ November 1-5 and 8-12, 1976

2/ January-October 1976

Source: Based on data in table 36.



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