MUSHROOMS

Report to the President
on Investigation No. TA-201-43
Under Section 201
of the Trade Act of 1974

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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.--Information which would disclose confidential operations of individual concerns may not be published and therefore has been deleted from this report. Deletions are indicated by asterisks.

REPORT TO THE PRESIDENT
ON INVESTIGATION NO. TA-201-43, MUSHROOMS

United States International Trade Commission
August 14, 1980

Determination of injury

On the basis of the information developed in the course of the investigation, the Commission has determined (Commissioner Bedell not participating) that mushrooms, prepared or preserved, 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, 1/ to the domestic industry producing an article like or directly competitive with the imported article.

Findings and recommendations concerning relief

Commissioners Alberger, Calhoun, and Stern find and recommend that, in order to prevent or remedy serious injury, 2/ it is necessary to impose quantitative restrictions on U.S. imports of mushrooms, prepared or preserved, provided for in item 144.20 of the TSUS, for the 3-year period commencing July 1, 1980. Such quantitative restrictions should be established at 86,000,000 pounds (drained weight) for the first year, to be increased by 9.7 percent in each subsequent year. The actual levels are as follows:

1/ Commissioners Calhoun and Moore found serious injury; Commissioners Alberger and Stern found serious injury, or the threat thereof.

2/ Commissioners Alberger and Stern, having found serious injury or the threat thereof, recommend relief to prevent or remedy such injury. Commissioner Calhoun, having found serious injury, recommends relief to remedy such injury.

(Quantities-drained weight basis)	
July 1, 1980/June 30, 1981	86,000,000
July 1, 1981/June 30, 1982	94,000,000
July 1, 1982/June 30, 1983	103,000,000

They further recommend that the President allocate such quantitative restrictions on a per country basis, as he deems appropriate.

Commissioner Moore finds and recommends that, in order to remedy the serious injury to the domestic industry that he has found to exist, it is necessary to impose a quota on U.S. imports of mushrooms, prepared or preserved, provided for in item 144.20 of the TSUS, for the 5-year period beginning July 1, 1980, as follows--78 million pounds for the first 2 years, to be increased by 10 percent in the third year, 10 percent above the third year level in the fourth year, and 10 percent above the fourth year level in the fifth year. He further recommends that the President allocate the quota on a per country basis as he deems appropriate.

Background

The Commission instituted the investigation on March 24, 1980, following receipt on March 14, 1980, of a petition filed by the American Mushroom Institute, a trade association representing domestic mushroom canners. Notice of the Commission's investigation and the public hearing held with respect thereto was published in the Federal Register of April 2, 1980 (45 F.R. 21753), and copies of the notice were posted at the office of the Secretary to the Commission in Washington, D.C., and at the Commission's office in New York City. A public hearing was held in the Commission's hearing room in

Washington, D.C., on June 9-10, 1980, and all interested parties were afforded an opportunity to be present, to present evidence, and to be heard.

This report is being furnished to the President in accordance with section 201(d)(1) of the Trade Act of 1974 (19 U.S.C. 2251(d)(1)). The information in the report was obtained from fieldwork and interviews by members of the Commission's staff, and from other Federal agencies, responses to Commission questionnaires, information presented at the public hearing, briefs submitted by interested parties, the Commission's files, and other sources.

VIEWS OF CHAIRMAN BILL ALBERGER, VICE CHAIRMAN MICHAEL J. CALHOUN, AND COMMISSIONER PAULA STERN

Section 201(b) of the Trade Act of 1974 requires that each of the following conditions be met before an affirmative determination can be made:

(1) There are increased imports (either actual or relative to domestic production) of an article into the United States;

(2) The domestic industry producing an article like or directly competitive with the imported article is being seriously injured, or threatened with serious injury; and

(3) Such increased imports of an article are 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.

We find that all three conditions have been met and therefore have made an affirmative determination in this investigation.

Increased imports

The statute requires the Commission to consider increases in imports "either actual or relative to domestic production." In this case, imports of the canned mushrooms have increased in both absolute and relative terms. Imports of canned mushrooms 1/ increased from 50 million pounds (drained-weight basis) 2/ in marketing year 1974/75 to 86 million pounds in 1978/79. 3/ In 1979/80 imports reached the record level of 114 million

1/ The subject imports in this case are "mushrooms, otherwise prepared or preserved," provided for in item 144.20 of the TSUS. While this item includes mushrooms in jars and frozen mushrooms, 97 percent of all these imports are in cans. Furthermore, the vast majority of domestic production in these categories is canned as opposed to jarred or frozen.

2/ Drained weight rather than fresh weight basis will be used throughout our views.

3/ A marketing year is July 1-June 30 and is the standard period used throughout this opinion. The Commission's present investigation gathered data from questionnaires covering marketing years since 1976/77. However, significant additional data on many factors were available from the two prior investigations.

pounds. The ratio of imports to domestic production of canned mushrooms increased from 68 percent in 1974/75 to 96 percent in 1978/79. Imports of canned mushrooms continued to increase in recent months, both absolutely and relative to production. Imports totaled approximately 75 million pounds in July-March 1979/80, as opposed to only 50 million pounds in the same period a year earlier.

The domestic industry

We have determined that the appropriate industry against which the impact of the subject imported articles should be weighed consists of all domestic producers of canned mushrooms. In making this determination, we have considered various arguments made in the hearing and offered in submissions that the relevant domestic industry consists of both processors and growers of mushrooms. For the reasons stated below, however, we do not believe such a broad definition of the domestic industry is justified in this case.

In order to understand the basis for our decision, it is necessary to examine the development of the concept of industry under section 201. Section 201(b)(1) requires that we consider the question of serious injury or threat thereof to "the domestic industry producing an article like or directly competitive with the imported article". The phrase "like or directly competitive article" derives from language in Article XIX of GATT 1/--the so-called "escape clause." It has been used in U.S. escape clause legislation since 1951. 2/ Although there is no express definition of this phrase in the

1/ General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. (5), (6), 55 U.N.T.S. 194 (1948), Vol. 14, BISD.

2/ Trade Agreements Extension Act of 1951, sec. 7, 65 Stat. 72 (1951).

statute or in predecessor provisions (except for one aspect of "directly competitive" which is discussed infra), it has a long history of application both in escape clause proceedings and elsewhere in customs administration. 1/

At least two conceptual problems attend the application of this language as it is used under section 201(b). First, there is the fundamental question of differentiating between articles that are "like" and articles that are "directly competitive." Second, there is the difficult problem of deciding whether the disjunctive "or" means that we are to examine two distinct industries, one producing the "like" product and the other producing the "directly competitive" product, as opposed to our examining the single industry comprised of producers of each of these types of articles. The face of the statute offers no clear direction for resolving either of these two questions.

With regard to the difference between products that are "like" and products that are "directly competitive," legislative history and judicial precedent offer guidance. The House and Senate Reports relating to the Trade Act of 1974 address this question directly with virtually identical language:

> The term "like or directly competitive" used in the bill to describe the products of domestic producers that may be adversely affected by imports was used in the same context in section 7 of the 1951 Extension Act and in section 301 of the Trade Expansion Act. The term was derived from the escape-clause provisions in trade agreements, such as article XIX of the GATT. The words "like" and

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1/ The same basic language was used in sec. 301 (a)(2) of the Trade Expansion Act of 1962, governing adjustment assistance petitions 76 Stat. 883 (1962) sec. 301 (a). See infra, p. 8. The term "like" is also used in antidumping and countervailing proceedings under title VII of the Tariff Act of 1930, as amended, 19 U.S.C. sec. 1677 (4)(a); although for that title it has a legislatively defined scope; see, 19 U.S.C. 1677(10). It has been used in various other provisions relating to customs administration; see, e.g. Geo. S. Bush Co., Inc. v. U.S., ARD 140 (U.S. Customs Ct. 1962).

> "directly competitive," as used previously and in this bill, are not to be regarded as synonymous or explanatory of each other, but rather to distinguish between "like" articles and articles which, although not "like", are nevertheless "directly competitive." In such context, "like" articles are those which are substantially identical in inherent or intrinsic characteristics (i.e., materials from which made, appearance, quality, texture, etc.), and "directly competitive" articles are those which, although not substantially identical in their inherent or intrinsic characteristics, are substantially equivalent for commercial purposes, that is, are adapted to the same uses and are essentially interchangeable therefor. 1/ (Emphasis added)

It is plain, therefore, that the intent of the drafting committees was that "like" has to do with the physical identity of the articles themselves, while "directly competitive" relates more to the notion of commercial interchangeability.

While the report language leaves little ambiguity as to Congressional intent regarding the meaning of "like" and "directly competitive," further guidance on the distinction between the two terms can be found in the leading case of United Shoe Workers of America, AFL-CIO v. Bedell. 2/ In that case, the court was faced with the Commission's interpretation of the term "like or directly competitive" in a determination involving a petition for adjustment assistance under the Trade Expansion Act of 1962. 3/ The court gave its view of the phrase, relying almost entirely on legislative history and case law regarding escape clause legislation. The court noted that:

1/ Trade Reform Act of 1974: Report of the Committee on Finance. . .S. Rept. No. 93-1298 (93d Cong., 2d sess 1974) pp. 121-22. (Senate Finance Rept).

2/ 506 F 2d 174 (D.C. Cir. 1974), see also, Trade Reform Act of 1973: Report of the Committee on Ways and Means . . . H. Rept. No. 93-571 (93rd Cong., 1st Sess. 1973) p. 45 (House Ways and Means Report).

3/ 76 Stat. 883 (1962).

> An imported product that is "like" a domestic product will ordinarily be directly competitive with that product. Unless Congress, by using "directly competitive" alternatively, intended to embrace articles not within the scope of "like," the "directly competitive" language is superfluous. From daily experiences, however, we know that many products can be directly competitive without having identical or nearly identical physical characteristics. Normally, the term "directly competitive" invites, in the first instance, a comparison of the commercial uses of the products and not their characteristics; the word "like," in common parlance, does the reverse. 1/

The court added that "one must approach the question whether an imported article is 'like' a domestic article with the knowledge that 'like' is the more restrictive of the two terms." 2/

With respect to the problem of whether the language "like or directly competitive" implies the existence and characteristics of one industry as opposed to two distinct industries, the legislative history and the court's ruling in United Shoe Workers v. Bedell also provide useful guidance here. In observing that "like" and "directly competitive" are two separate items which are neither synonymous with nor explanatory of each other, both the House and the Senate strongly imply that these terms could, indeed, refer to separate groups of producers. The court's decision in United Shoe Workers v. Bedell also suggests that the distinction drawn by the statute could be critical to a Commission determination, and that some decisions may only involve the narrower of the two product scopes.

In previous cases, Commissioners have generally not found it essential to draw meaningful distinctions between the terms "like" and "directly competitive", usually because the distinction was not important to the outcome

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1/ 506 F 2d 174, at pp. 185-86.
2/ Id at p. 186.

of the case or because the facts overwhelmingly indicated a given result. This does not mean, however, that the Commission has always aggregated producers of both "like" and "directly competitive" articles into one industry. In at least one case where the two groups could be clearly distinguished, a majority of the Commission considered them separately, rather than cumulatively, to determine whether one or the other met the criteria for relief. 1/ The majority view regarding industry was perhaps best explained in the views of Commissioners Talbot and Overton, which read in part as follows:

> The term "like" clearly refers to products which are of the same kind, and the term "directly competitive" clearly refers to articles which are not "like", but which nevertheless directly compete with the imported product concerned. It is further our view that, in a case where there is domestic production of both "like" and "directly competitive" products, a basis for invoking the escape clause exists if under the escape-clause criteria it is established that the imports in question are causing or threatening serious injury to the domestic production of the "like" products only, regardless of the effect of the imports on the "directly competitive" products. 2/

It should be noted that the majority view in this case was clearly contrary to a previous decision in which a majority aggregated "like" and "directly competitive" articles. 3/ Both decisions were made under the Trade Agreements Extension Act of 1951, 4/ and in neither instance did the Commission have the benefit of the 1974 legislative history or the judicial precedent discussed above, which seem to reinforce the latter of the two Commission rulings.

1/ Zinc Sheet, Report on Escape Clause Investigation No. 81 under Section 7 of the Trade Agreements Extension Act of 1951, as amended (January 1960).

2/ Id at p. 59.

3/ Chalk Whiting, Report on Escape Clause Investigation No. 15 under Section 7 of the Trade Agreements Extension Act of 1951 (April 1953)

4/ 65 Stat. 72 (1951) at sec. 6(a).

Nevertheless, we find the reasoning of Commissioners Talbot and Overton somewhat incomplete, because it is based solely upon considerations of product differences and does not relate those considerations to the concept of "industry." Therefore, while we concur in principle with their conclusion, we feel compelled to explain how our approach differs.

We believe that in light of the authorities mentioned above the appropriate task for us in cases arising under Section 201 is to draw a distinction between the "like" product and the "directly competitive" product. Then, if the producers of these two articles can clearly be treated as separate and distinct industries, and if such treatment is consistent with practice in the marketplace, we must look to whichever industry presents the most compelling argument for relief. There may be cases where it is impossible or inappropriate to segregate industries on this basis. For example, if the same group of firms used the same productive facilities to produce both "like" and "directly competitive" articles, and if it were impossible to break out statistics on production, consumption, sales, profits, or employment on the basis of the "like" product, then we might be compelled to aggregate. In other words, the industry producing a "like" product must be rationally defined, and it must be a reasonably distinct entity. It should also be reflective of current industrial and marketing practices.

Obviously, our industry concept under Section 201 can be distorted to reach an absurd outcome, and we must avoid industry definitions that are drawn artificially narrow simply to make relief more likely. While producers of the "like" product alone may constitute an industry for the purposes of section 201, this must be a classification which we are capable of analyzing under the

pertinent statutory criteria. We see nothing that would suggest a contrary view of industry in any of the authorities mentioned, nor in previous Commission practice. Moreover, we believe that this is the overall approach most consistent with both the plain language and the underlying purposes of Section 201.

The facts gathered in this investigation clearly show that the "like" product is canned mushrooms and does not include fresh mushrooms. Only canned mushrooms have the same or nearly the same appearance, qualities or characteristics. 1/ There are certain intrinsic differences between the two products. 2/ For example, canned mushrooms may be stored for an indefinite period, while fresh mushrooms must be consumed or preserved within a short time. Restaurants and other institutional users point out that fresh mushrooms have higher preparation costs. 3/ For certain uses, such as salads, fresh mushrooms are clearly preferred. 4/ There are obvious differences in quality, texture and taste 5/, as pointed out in the Commission's survey. 6/

The Commission's survey did reveal that there is a certain degree of interchangeability between the two types of goods, but this merely indicates that the products may be "directly competitive". In fact, Section 601(5) of the Trade Act of 1974 7/ was written specifically to assure among other things

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1/ See, Japan Import Co. v. United States, 86 F. 2d 124, 24 C.C.P.A. 167, 176 (1936). "Like" is commonly defined as "the same or nearly the same (as in appearance, character, or quantity)", Webster's New Collegiate Dictionary (1977).

2/ Intrinsic characteristics was a factor mentioned in the Senate Finance Rept., supra, at p. 122.

3/ See infra, p. A-12.

4/ See infra, p. A-11.

5/ See Senate Finance Rept. supra, at p. 122.

6/ See infra, p. A-10-A-12.

7/ 19 U.S.C. 2481 (5).

that producers of agricultural goods have standing to petition for relief against imports of goods at a different stage of processing on the grounds that such goods are "directly competitive" for the purpose of section 201. The section states:

> An imported article is "directly competitive with" a domestic article at an earlier or later stage of processing, and a domestic article is "directly competitive with" an imported article at an earlier or later stage of processing, if the importation of the article has an economic effect on producers of the domestic article comparable to the effect of importation of articles in the same stage of processing as the domestic article. For purposes of this paragraph, the unprocessed article is at an earlier stage of processing. 1/

As pointed out by the court in United Shoe Workers v. Bedell, the section was enacted after the Commission had refused to consider unprocessed sweet cherries to be "directly competitive" with imports of processed Glace cherries. 2/ Commenting on this fact, the court said:

> . . . after the Commission excluded from the reach of "like or directly competitive," products that were "substantially the same" but at "an earlier or later stage of processing," Congress expanded the definition of "directly competitive," rather than "like," to encompass those products. This evidence, in our view, is persuasive as to the restrictive sense in which Congress used the word "like" 3/

Considering the history behind section 601(5) and the restrictive definition historically given to the term "like", it seems that, at most, fresh mushrooms could only be considered "directly competitive" with a product such as canned mushrooms, which are at a later stage of processing and have been altered in many respects.

Having determined that the "like" product is canned mushrooms, we must also consider whether the domestic producers of this article constitute a

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1/ Id.
2/ 506 F 2d, at pp. 185, note 76.
3/ Id.

separate and distinct industry for which it would be appropriate to invoke section 201. Our investigation revealed that canning and processing are largely distinct from the production and sale of fresh mushrooms. While some firms are engaged in both types of operations, the majority of canners are separate from the growing industry and must purchase fresh mushrooms from growers. Of those canners who do grow their own fresh mushrooms, most devote such production solely to processing rather than sales on the fresh market. Even with respect to those canners who do make some sales to the fresh market, separate accounting records are usually maintained for such sales. In general, the Commission has data exclusively for U.S. canning operations which enable us to analyze all factors relevant to our determination of injury. Production, consumption, sales, employment, profitability, capacity utilization, and other factors can all be examined for canning operations alone.

Clearly then, the canning of mushrooms encompasses a distinct class. We therefore believe that the facts of this case compel us to treat mushroom processors as a separate "industry" for the purpose of section 201. 1/

Serious injury

Section 201(b)(2)(A) of the Trade Act provides guidelines for determining whether a domestic industry is being seriously injured. The Commission must consider, among other economic factors, whether there is a significant idling

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1/ Because our determination with respect to this industry is affirmative, and because the industry producing the "like" product presents the most compelling case for relief, we do not find it necessary to address the question of possible injury to an industry producing "directly competitive" goods in this opinion.

of productive facilities in the industry, the inability of a significant number of firms to operate at a reasonable level of profit, and significant unemployment or underemployment within the industry. Because the Act specifically avoids limiting the Commission to just these criteria, we have also considered all other relevant economic indicators on which the Commission has been able to compile data. These included inventories, exports, and sales.

Many smaller producers have terminated operations in recent years. In late 1979, canned mushrooms were produced by 23 firms, compared with 29 firms in 1976 and 35 firms in 1972. The capacity utilization rate for U.S. producers of canned mushrooms also declined, falling from 43 percent in 1977 to 35 percent in 1979, although there are indications that at least part of this decline is attributable to expansion of facilities by some domestic firms. Inventories of domestically canned mushrooms grew from 10.7 million pounds on June 30, 1976 to a peak of 23.0 million pounds on June 30, 1977. On March 31, 1980, the latest quarter for which such information is available, inventories were 20.0 million pounds, 14 percent greater than one year earlier. The average number of production and related workers employed in mushroom canning operations declined from 1,739 workers in marketing year 1976/77 to 1,593 in 1978/79. Exports of canned mushrooms are not a significant factor as they amounted to only 576 thousand pounds in 1978/79, and appear never to have been more than approximately one percent of production.

Seventeen U.S. canners, representing about 90 percent of domestic production, provided usable financial data to the Commission. Aggregate net

sales of canned mushrooms increased by 4 percentage points from 1976/77 to 1977/78 before falling by an equal amount from 1977/78 to 1978/79, primarily due to a decline in domestic volume of sales rather than a decline in prices. The number of firms reporting a net operating loss on their canned mushroom operations jumped from four in 1977 and 1978 to nine in 1979. Although aggregate data for the canned mushroom industry showed a net operating profit, the aggregate net operating profit fell from $4 million in 1977 to $1.7 million in 1979, a decline of 58 percent. The ratio of net operating profit to net sales dropped from 3.4 percent in 1977 to 1.3 percent in 1979. This net operating margin was far below the 4.9 percent in 1979 recorded by the canned and dried fruits and vegetables industry as a whole. The aggregate situation shows an industry which is either suffering serious injury or is on the threshold of serious injury. 1/ However, the injury does not appear to be spread evenly over all firms. Two of the three largest and most technically advanced canners show every sign of being able to make adequate profits; the third large canner's economic performance was poorer. Under section 201(b)(2)(A), however, it is the inability to make a reasonable profit on the part of "a significant number of firms" that is controlling.

Threat of serious injury 2/

Section 201(b)(2)(B) directs the Commission in determining whether there exists a threat of serious injury to consider, among other factors, "a decline in sales, a higher and growing inventory, and a downward trend in production,

1/ Commissioners Alberger and Stern find serious injury or a threat thereof. Commissioner Calhoun finds only serious injury.
2/ Id.

profits, wages or employment . . . in the domestic industry concerned." Some of these factors have already been discussed.

We have found the domestic canned mushroom industry to be in a period of great difficulty and on the threshhold of serious injury. However, the increase in import penetration of as much as 10 percentage points over the most recent marketing year makes clear that, even if the injury already experienced is not yet definitively serious, the threat of serious injury caused by rapidly increasing imports is real and imminent. The downward turn in domestic sales noted earlier for 1978/79 seems to continue. Figures for July-March 1979/80 are 3.7 percent below those for one year earlier. Inventories are rising slightly. Information on foreign capacity does not diminish this threat. Capacity expansion in mushroom production may be stalled temporarily in Taiwan and Korea--presently the major exporters to the United States--due to an apparent current oversupply in each country. However, this situation is not expected to continue. In addition, the oversupply situation suggests that considerable excess capacity exists which could be the basis for expanded production and export to the U.S. in the immediate future. Taiwan and Korea have been seriously affected by import restrictions imposed by the European Community (EC). Since quality standards in the U.S. are different than those in Europe, it is unclear how much of the product excluded from the EC could enter the United States. It was also reported that the Peoples Republic of China (China) is expanding its mushroom operations, apparently in preparation for using its recently obtained most-favored-nation status with the United States (February 1, 1980). In

fact, China's canned mushrooms exports to the U.S. during 1979/80 were 4.3 million pounds compared to an annual average level of 911,500 pounds over the last four marketing years, 1975/76 to 1978/79.

Substantial cause

The Trade Act contains both a definition of the term "substantial cause" and certain guidelines to be considered by the Commission in determining whether increased imports are a substantial cause of the requisite serious injury or threat thereof. Section 201(b)(4) of the Trade Act defines the term "substantial cause" to mean "a cause which is important and not less than any other cause." The guidelines to be considered by the Commission with regard to substantial cause are contained in section 201(b)(2)(C), which states that in making its determination the Commission shall take into account all economic factors which it considers relevant, including (but not limited to)--

> . . . an increase in imports (either actual or relative to domestic production) and a decline in the proportion of the domestic market supplied by domestic producers.

The report of the Senate Committee on Finance on the bill which was to become the Trade Act states, with respect to the question of substantial cause:

> 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. 1/

We have concluded that the increase in imports is a substantial cause of the serious injury or threat of serious injury which we have found to exist. Increased imports are both an important cause of such injury and not less than any other cause. The ratio of canned mushroom imports to total domestic

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1/ Senate Finance Report, supra, at pp. 120-21.

canned mushroom production increased from 68 percent in 1974/75 to 96 percent in 1978/79, while the share of total domestic canned mushroom consumption taken by canned mushroom imports increased from 40 percent in 1974/75 to 49 percent in 1978/79. Commission estimates prepared on the basis of known imports and projections for fourth-quarter domestic sales indicate that import penetration for 1979/80 is between 55 and 58 percent, significantly higher than that of the previous year.

It is not altogether clear why there has been such a dramatic loss of market share to imports. Analysis of allegations of sales lost by domestic firms to importers yielded no clear answer. Only a few allegations were confirmed. In some instances price and/or quality were given as reasons for choosing foreign sources over domestic sources; in other instances domestic product was chosen for the same reasons. One national firm marketing primarily imported product appears to have a significant advantage due to superior product recognition from large advertising efforts. Price data show no consistent pattern of underselling in most product lines. Domestic canners' prices and importers' prices often move in parallel, albeit with a slight lag on the part of importers. However, the recent loss of market share is so substantial that it outweighs the lack of any clear indications of lost sales and underpricing.

There has been a suggestion that diversion of the raw product to the fresh market is an important cause of injury to the canning industry. Indeed there has been an extraordinary growth in demand for fresh mushrooms as national income has grown and tastes have changed; this may have denied

canners some of the growth in demand they might have otherwise experienced. However, any diversion that has taken place does not appear to have limited unduly opportunities for selling canned mushrooms, as the statistics show that consumption of canned mushrooms has grown in the face of any such diversion. Consumption of canned mushrooms increased from 193 million pounds in 1974/75 to 273 million pounds in 1978/79, with the great majority of this increase being accounted for by increasing imports. Therefore, we cannot say that the shift in consumer demand to fresh mushrooms has been the substantial cause of serious injury to mushroom canners. Rather, their poor performance has been primarily due to import competition. It should be noted that there appear to be few if any problems in the fresh mushrooms industry, where premium prices prevail due to a shift in and growth of demand for this product. Some canners may benefit from consequent price increases for fresh mushrooms.

Conclusion 1/

Our principal dilemna in this case--once we had resolved questions regarding the appropriate scope of the industry--was whether to find serious injury or threat of serious injury. Because of the circumstances of this case, we do not believe it is essential to make a firm choice between the two. If, in fact, the health of the industry has not yet crossed the barrier into a state of "serious injury", it is clear to us that it soon will. Data through March of 1980 show recent declines in capacity utilization, employment, production and profits in the face of rising imports. We know

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1/ See footnote 1, supra, p. 16.

that imports increased significantly from April to June of 1980, and we received testimony that conditions in the industry were deteriorating during that period. Our official data on such conditions extend only through March, 1980, but we can surmise that conditions must have further deteriorated in the past 4 months. We suspect that serious injury exists today, but given the time lag in obtaining data it is not altogether clear whether the clear threat of serious injury has materialized into present injury. We can find no cause of either serious injury or the threat thereof which is as great as the increased imports of canned mushrooms. Thus, we have determined that the domestic industry producing canned mushrooms is entitled to relief.

ADDITIONAL VIEWS ON REMEDY

We recommend that the appropriate remedy in this case is import relief in the form of quantitative restrictions for the 3-year period commencing July 1, 1980. These restrictions should be established (on a drained-weight basis) at the level of 86 million pounds in the first year, 94 million pounds in the second year and 103 million pounds in the third year. We believe that these limitations on imports would enable the domestic industry to adjust to import competition through consolidation of smaller operations and better marketing techniques. We feel that three years should be a sufficient period to allow viable domestic competitors to adopt new technology such as vacuum processing.

Our methodology for arriving at these quota levels was as follows:

(1) We first determined that the most recent period representative of imports (see sec. 203(d)(2)) consists of marketing years 1974/75 through 1979/80. This 6-year period includes both the year of highest import penetration (1979/80) and the last year for which import shares remained constant (40 percent in 1974/75). Moreover, it includes the 3-year period prior to marketing year 1977/78, which was the year that import shares rose sharply to 49 percent. Six years is certainly a representative period, and although it represents a slight departure from the Commission's frequent practice of basing quantitative restrictions on a 5-year period, we feel the facts of the case justify our decision.

Marketing years were used simply because they enabled us to examine import data for 1979/80. Although the 1979/80 data are not included in Table 7 of the report, total imports for 1979/80 were determined by the Commission

to be approximately 113 million pounds through June 30, 1980, the end of the marketing year. The figure would have been similar if we had used calendar years for determining average annual imports, assuming imports for 1980 were pro-rated on the basis of available data.

(2) Average annual imports for this 6-year period were found to be approximately 78 million pounds.

(3) We then estimated the average annual percentage growth in consumption by computing the percentage growth in each of the prior 6 years. Consumption for 1979/80 was estimated on the basis of the first three quarters' statistics, but the estimate is, if anything, conservative. This calculation yielded an annual growth in consumption of 9.7 percent since 1974/75.

(4) Our base figure of 78 million pounds was increased by 9.7 percent in order to obtain the 1980/81 quota level. Since the last year used in calculating the base figure was 1979/80, an increment for consumption growth was deemed appropriate. The 1980/81 figure was increased by an additional 9.7 percent in 1981/82, and an equivalent increase was calculated for 1982/83.

Based on current figures, our recommendations would result in an initial drop in the import share of consumption from approximately 55 percent to about 44 percent. Assuming normal growth of the domestic market, the import share would remain relatively stable over the 3-year period, allowing for absolute growth in both domestic production and imports. This would assure domestic producers a temporary period of sustained profitability in which to become more competitive.

In the course of reaching our decision to recommend quotas in this case, we also considered both temporary tariff increases and adjustment assistance.

Increased rates of duty did not appear to be a viable option for two reasons. First, there is no clear pattern of underpricing, and thus it is virtually impossible to determine what level of increase is necessary to reduce import shares. Price spreads vary greatly according to the sizes of cans and the specific contents (e.g., stems and pieces versus buttons). In some categories, domestic products are even priced lower. A second argument against a tariff remedy is that tariffs might not be fully passed forward. The two leading foreign suppliers in the U.S. market, Taiwan and Korea, which generally account for 75 percent or more of total annual U.S. imports, are presently faced with a significant amount of unused production capacity. It is possible that these suppliers would absorb at least part of any given tariff in order to maintain their existing share of the U.S. market. There is also a possibility that China might absorb any tariff increases in order to increase its small but growing market share.

Adjustment assistance to firms or workers engaged in canning operations would not be a sufficient remedy for the problems currently afflicting the industry. While it could have a positive effect on the industry in light of the important innovations needed to increase efficiency, it would not enable canners to significantly improve their sales or profits for several years.

Furthermore, we considered whether import relief might be directed specifically to just certain segments of the canned mushroom market. However, analysis showed that both the imported and domestically canned mushrooms had substantial presence in all segments of the market--in institutional and consumer sized cans of whole and sliced mushrooms as well as stems and pieces.

VIEWS OF COMMISSIONER GEORGE M. MOORE

I concur with my colleagues who have made an affirmative determination in this proceeding insofar as their views relate to our unanimous finding of present serious injury. This is the third escape-clause investigation on mushrooms in which I have participated. Conditions in the mushroom canning industry have worsened since my affirmative vote in investigation No. TA-201-17, in January 1977.

Since marketing year 1975/76 (the last marketing year for which information was available at the time of my last vote), imports have continued to increase, both absolutely and relative to production. Between 1975/76 and 1978/79, imports of canned mushrooms rose from 88 million pounds (fresh-weight basis) to 133 million pounds and the ratio of imports of canned mushrooms to production of canned mushrooms increased from 85 percent to 96 percent.

While imports of canned mushrooms have been increasing, the serious injury sustained by the domestic mushroom canning industry has been growing more severe. Six canneries have ceased operations since 1976 and the capacity utilization rate for the remaining mushroom canners fell from 43 percent in 1977 to 35 percent in 1979. Of the 17 producers able to provide the Commission with usable profit-and-loss data on their mushroom canning operations, over half operated at a loss in 1979. This was a reversal of the situation in the industry in 1977 when 13 of the firms reported a net operating profit. Although aggregate data for the industry as a whole indicated that there was a net operating profit for canned mushroom operations of $1.7 million in 1979, this was a drop from the $4 million net operating

profit in 1977. The ratio of net operating profit to net sales for canned mushrooms also fell between 1977 and 1979, from 3.4 percent to 1.3 percent. The 1979 ratio for canned mushrooms was far below that reported for all canned and dried fruits and vegetables. The average number of production and related workers employed in mushroom canning operations, as well as the number of hours worked, also declined since my last decision.

Increased imports continue to be a substantial cause of serious injury to the domestic industry. Consumption of canned mushrooms has risen 36 percent since 1975/76 but imports are capturing a larger share of this growing market, accounting for nearly half of U.S. canned mushroom consumption in 1978/79. A comparison of data for July-March 1978/79 and 1979/80 shows that this trend is accelerating. While domestic consumption of canned mushrooms increased by 22 million pounds during the indicated period, imports rose by 26 million pounds and accounted for 53 percent of the market in July-March 1979/80.

As a consequence of the factors discussed above, I determine that mushrooms, prepared or preserved, 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 an article like or directly competitive with the imported article.

ADDITIONAL VIEWS ON REMEDY

The remedy alternative which I propose is a quantitative restriction on imports of mushrooms, prepared or preserved, provided for in item 144.20 of the TSUS, for a period of 5 years beginning July 1, 1980. The quantity of the quota for the first two years should be the average of the amount of imports under this TSUS item during the last six marketing years (1974/75-1979/80) which I determine to be the most recent period which is representative of

imports of this article. The methodology for arriving at this quota level is set forth in the views of Commissioners Alberger, Calhoun, and Stern on remedy earlier in this report. My suggested remedy differs from that of my colleagues, however, in that I believe that the quota should be set at the average annual import level for the 6-year period (78 million pounds, drained weight) and that a quota set at this level must be in effect for at least two years in order for the industry to begin to adjust to the injury it has already experienced.

Section 203(h)(2) of the Trade Act of 1974 provides that, "to the extent feasible, any import relief provided pursuant to this section for a period of more than 3 years shall be phased down during the period of such relief, with the first reduction of relief taking effect no later than the close of the day which is 3 years after the day on which such relief first took effect". Accordingly, I propose that the quantitative restrictions I am recommending be increased (i.e., "phased down") by 10 percent in the third year, 10 percent above the third year level in the fourth year, and 10 percent above the fourth year level in the fifth year. Although I do not believe that the rapid rate of growth which has occurred in domestic consumption of canned mushrooms in the last several years will continue, I believe it is feasible to increase the quotas by 10 percent during the third, fourth, and fifth years of the quantitative restrictions I have recommended.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On March 14, 1980, the American Mushroom Institute, a trade association representing both mushroom canners and growers, filed a petition with the U.S. International Trade Commission, pursuant to section 201 of the Trade Act of 1974, for import relief with respect to imports of canned mushrooms provided for in item 144.20 of the Tariff Schedules of the United States (TSUS). The petition alleged that domestic canners of mushrooms were being seriously injured or threatened with serious injury as a result of increased imports of such mushrooms.

Following receipt of the petition, the U.S. International Trade Commission instituted an investigation on March 24, 1980, to determine whether mushrooms, prepared or preserved, 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. Notice of the Commission's investigation and the place and time of the hearing was published in the Federal Register on April 2, 1980 (45 F.R. 21753). 1/ A public hearing in connection with this investigation was held on June 9 and 10, 1980, in the Commission's Hearing Room in Washington, D.C. The Commission was briefed on the investigation by its staff on July 29, 1980 and voted on the question of injury on the same day. The Commission was briefed on the question of remedy alternatives on August 6, 1980 and voted on a recommended remedy on the same day.

Information contained in the petition

The American Mushroom Institute seeks a recommendation of tariff relief to the President from the Commission pursuant to section 201 of the Trade Act of 1974 in the form of a tariff-rate-quota system. The institute wants a tariff-rate quota designed to give the domestic industry a period of time in which to improve its competitive position and strengthen its financial foundation so it can adjust to international competition. It modified this remedy request at the hearing, alleging that only a system of quotas could aid the domestic industry. The institute's revised recommendation is that an absolute annual quota be established to limit imports to 30 percent of the total U.S. supply. The quota, to be administered on a global basis, would remain in effect for 5 years. In its petition, the institute stated that it does not want to restrict the quantity of canned mushrooms available to U.S. consumers, but rather to regain a share of the market lost to imports. In investigation No. TA-201-17, the Commission found that imports above the average level of imports in the 1972/73 through 1974/75 marketing years were a substantial cause of serious injury to the domestic industry. According to the institute, the tariff-rate quota it sought in its current petition is one which would provide relief from excessive imports, and reduce import penetration to levels comparable with those in existence prior to the period of serious injury.

1/ A copy of the Federal Register notice is included in appendix A.

The domestic mushroom industry is seeking to overcome its problems related to imports through more effective marketing, improved productivity, and product diversification, according to the institute. Grants to the industry from the Economic Development Administration of the U.S. Department of Commerce will be used by The Pennsylvania State University to develop and test more efficient growing, processing, and marketing techniques. Furthermore, institute programs now in existence for cooperative advertising and promotion will be expanded and improved in an effort to increase consumption.

Earlier investigations on mushrooms

There have been several Commission investigations concerning mushrooms in the last 16 years. 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 that 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 exports to the United States. 2/ 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. 3/

In 1968, Taiwan took steps to place a limit on its shipments of canned mushrooms to the United States in that year only. The limitation 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.

1/ The Commission's report, Mushrooms Prepared or Preserved: Report to the President on Investigation No. TEA-I-8 . . ., TC Publication 148, was sent to the President on Jan. 27, 1965.

2/ 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 there. 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 parties to the agreement.

3/ 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.

In 1972, the domestic canners again sought Presidential approval for the initiation of discussions with the Governments of Taiwan and the Republic of Korea under section 204 of the Agricultural Act of 1956 for the purpose of obtaining agreements to limit their exports of canned mushrooms to the United States. Thereupon, the President requested the Commission, under section 332 of the Tariff Act of 1930, to conduct an investigation (No. 332-72) 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 by the United States with Taiwan and Korea concerning unilateral restraints on their mushroom exports to the United States, but no agreements resulted.

On September 17, 1975, the Mushroom Canners Committee of the Pennsylvania Food Processors Association and the Mushroom Processors Tariff Committee filed a petition with the Commission pursuant to section 201 of the Trade Act of 1974 for relief from imports of mushrooms. Upon completion of that 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, and recommended the provision of adjustment assistance to effectively remedy the serious injury or threat thereof found to exist. 2/

In response to the Commission's recommendation of adjustment assistance, the President called for expeditious consideration by the Secretaries of Labor and Commerce of petitions for such assistance. During the period April 1, 1976, to May 31, 1980, 11 firms petitioned the U.S. Department of Commerce for adjustment assistance, with 8 of the firms being certified for such assistance. Assistance totaling $23,000 was provided during the 4-year period. During the same period, worker petitions for adjustment assistance were received by the U.S. Department of Labor from two groups of workers. One of these petitions was certified, resulting in 13 workers' receiving a total of $18,462 in trade adjustment assistance.

On September 20, 1976, the Commission received a letter from the United States Trade Representative (USTR) 3/ requesting an expedited investigation pursuant to section 201(b)(1) of the Trade Act of 1974. 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 (No. TA-201-17) on October 5, 1976.

1/ The Commission's report, Mushrooms: Report to the President on Investigation No. 332-72 . . ., TC Publication 580, was sent to the President on May 30, 1973.

2/ The Commission's report, Mushrooms: Report to the President on Inv. No. TA-201-10 . . ., USITC Publication 761, was sent to the President on March 17, 1976.

3/ At the time, known as the Special Representative for Trade Negotiations.

On the basis of that investigation, 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. 1/ A majority of the Commission (Commissioners Minchew, Parker, and Moore) recommended imposing a tariff-rate-quota system for the ensuing 5-year period, while Commissioners Leonard and Ablondi recommended the provision of adjustment assistance to the domestic industry.

Upon consideration of the Commission's recommendation, the President determined that provision of import relief would not be in the national economic interest. However, on March 10, 1977, the President, pursuant to section 332(g) of the Tariff Act of 1930, (19 U.S.C. 1332(g)), requested the Commission to conduct an investigation (No. 332-84) to obtain certain information necessary for the monitoring of import competition in the domestic market for canned mushrooms. More specifically, the Commission was requested to prepare quarterly statistical reports providing the following information on canned mushrooms: production, sales, and inventories of U.S. producers, according to size and style of pack; U.S. imports for consumption (total, and by country of origin); U.S. exports, to the extent they could be readily determined; and apparent U.S. consumption. The Commission subsequently issued 12 quarterly statistical reports on canned mushrooms. 2/

Description and Uses

The term "mushroom" as used herein refers only to the edible portion (the fruiting body) of the mushroom fungi. There are four varieties of mushrooms commonly marketed in the United States: white, off white, creme, and brown. Traditionally, in the eastern half 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 thoughout the country, however, for increasing supplies of creme and off-white mushrooms are being sold on the fresh market in both regions. Mushrooms are marketed fresh, dried, frozen, or canned. Fresh mushrooms, used primarily as a garnish with meats and other foods, are also served separately or in gravies, sauces, relishes, salads, and soups. Some consumers will freely interchange canned mushrooms, frozen mushrooms, and, to a lesser degree, dried mushrooms with fresh mushrooms.

1/ The Commission's Report, Mushrooms: Report to the President on Investigation No. TA-201-17 . . ., USITC Publication 798, was sent to the President on Jan. 10, 1977.

2/ The Commission's most recent quarterly report, Processed Mushrooms . . .: Report to the President on Investigation No. 332-84 . . ., USITC Publication 1043, went to the President on Feb. 29, 1980. The next two quarterly reports were suspended at the request of the USTR because the Commission was conducting the current investigation on the same product.

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. The domestic mushrooms destined for fresh-market sales are usually sold (with roots trimmed off) in 3-pound or 10-pound baskets either through retail stores or to institutional users (restaurants and other bulk buyers). Handling by consumers of the fresh product in retail stores generally results in many damaged mushrooms, which must be sold at reduced prices or discarded. Although problems have been encountered in prepackaging fresh mushrooms in consumer-size containers (i.e., choosing the right types and sizes of containers and inducing consumers to purchase prepackaged mushrooms), an estimated 50 percent of fresh-market sales are being accounted for by prepackaged mushrooms.

The great bulk of the prepared or preserved mushrooms, except dried, are canned. Canned mushrooms are usually packed in a light brine solution; however, small quantities are also preserved in vinegar (pickled mushrooms), in wine (mushrooms in wine), and in oil (marinated mushrooms). Mushrooms canned in brine are used largely for the same purposes as fresh mushrooms, while those canned in other mediums have limited uses, mainly as appetizers and snacks.

Most of the imported canned mushrooms are of the same species as those canned in the United States and are comparable in flavor and appearance. Virtually all the imports from Taiwan, Korea, Hong Kong, France, and the People's Republic of China, and most of the imports from Japan, are of this species. A small portion, however, consist of either cultivated or wild species not grown commercially in the United States and different from the domestic cultivated mushroom in flavor and appearance. The most important of these is the "shiitake" mushroom from Japan, which is used principally in oriental cuisine. Frequently, because of tradition, fancy packaging, and reputed quality, mushrooms imported from France have a prestige value over the domestic product. They are sold principally to restaurants and gourmet food stores, where consumers are willing to pay a higher price for them. The straw mushroom, primarily from Taiwan, is similar in taste to but different in appearance from the domestic cultivated mushroom; its use is confined largely to industrial and institutional consumers.

Before they are canned, mushrooms are trimmed (roots removed), washed, graded, sometimes sliced, and then blanched. They are then put into containers, covered with a preserving medium, sealed airtight, and pressure cooked. The three main styles of canned mushrooms are stems and pieces (including random-sliced mushrooms), sliced mushrooms, and whole mushrooms (including buttons). The containers range in size from 2 to 68 ounces (drained weight). 1/ Containers holding more than 9 ounces of mushrooms (drained weight) are generally referred to as institutional sizes. A relatively small part of the domestic mushroom crop is marketed frozen for the same uses as are fresh mushrooms.

1/ Drained weight refers to the weight of the mushrooms after removing the liquid.

The only method currently being used in the United States to dry mushrooms commercially is freeze-drying. When moisture is added, such mushrooms (usually diced or sliced) regain approximately the size, shape, texture, and flavor of the original fresh product and can be substituted for fresh or canned mushrooms in most uses. However, freeze-dried mushrooms cost considerably more than fresh or canned mushrooms, and their acceptance has been limited. Freeze-dried mushrooms are used mainly in convenience dehydrated food products such as soup, gravy, and meat-extender mixes.

U.S. Growers and Processors

Mushrooms were first grown commercially in the United States in the latter part of the 19th century. New York City and nearby Long Island constituted the first growing center. By 1890, greenhouse operators in the Kennett Square area 1/ had begun to grow mushrooms in the unused spaces under their greenhouse benches. Soon many farmers in that area were utilizing idle space in barns, sheds, and cellars for growing mushrooms. At the turn of the century, special houses were built solely for growing mushrooms. 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. At present, well-composted horse manure, synthetic compost, and mixtures of the two are used to produce mushrooms commercially.

Growers

In 1979, mushrooms were grown commercially by about 550 growers--about 23 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, such as Ralston Purina Company and Campbell Soup Company.

During marketing years 1970/71 to 1978/79, 2/ the square footage of growing area devoted to mushroom production increased about 69 percent; according to official statistics of the U.S. Department of Agriculture, growers planned to further increase their growing area by about 5 percent in 1979/80, as indicated in the following tabulation:

1/ Composed of southeastern Pennsylvania and nearby portions of Delaware and Maryland.

2/ A marketing year is July 1-June 30 and is the standard period used throughout this report.

Marketing year beginnig July 1—	Area	Yield
	Million square feet	Pounds per square foot
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
1976/77	118	2.95
1977/78	135	2.95
1978/79	147	3.08
1979/80	1/ 155	2/

1/ Grower intentions.
2/ Not available.

During the 1970's, the average yield per square foot rose by nearly one-third as growers continued to adopt new and improved cultural practices.

Commercial production is concentrated in Pennsylvania, although mushrooms are also grown near many of the large U.S. population centers. California, New York, and Delaware are the other principal producing States. Percentage distribution of the area intended for production in principal producing States for the marketing year 1979/80 is as follows: Pennsylvania, 50 percent; California, 14 percent; and all other States, 36 percent.

Most U.S. mushrooms are grown during the period October through May, when climatic conditions favor growth. Most growers raise two crops a year, one in the fall and another in the spring. The use of air-conditioning, however, together with an expansion of the mushroom crop in California, has resulted in an increased share of the total U.S. crop being grown during the summer months. In 1979/80, about 40 percent of the area mushroom growers intended to harvest was to be from additional fills, i.e., over and above their normal fall and spring fills. 1/ By comparison, in 1970/71 only about one-fourth of the total area harvested was from such additional fillings.

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 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.

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

Some producers of mushrooms have installed a tray system in their growing operations, which involves moving a tray holding the growing medium from one controlled environment to another during the period of early growth. 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 improved composting methods, resulting in increased labor efficiency. Tray operations tend to be considerably larger than those with fixed beds, leading to larger houses and greater capital investments in equipment. However, industry sources indicate that because of the high cost of installing the tray system, less than 25 percent of the output is grown by this technique.

Canners

In late 1979, canned mushrooms were produced by 23 firms, compared with 29 firms in 1976 and 35 firms in 1972. Ten of the canners are in Pennsylvania; most of the other firms are located in the Midwest and in California. Two of the firms are grower-owned cooperatives. In 1978/79, nine of the canners each sold more than 3 million pounds of domestically canned mushrooms, but no single firm accounted for more than one-fifth of U.S. sales 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 most, 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 other products.

During the marketing years 1970/71 to 1978/79, some of the domestic canners grew part or all of their fresh mushroom requirements. Some canners may ship part of their 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.

Freezers

In recent years, about 5 percent of the domestically produced prepared or preserved mushrooms, except dried, were frozen. Twelve firms produced frozen mushrooms in late 1979; one of these firms also produced canned mushrooms. The freezers accounting for the bulk of domestic output are located in Pennsylvania, Indiana, and California.

Driers

In recent years, freeze-drying has been the only method used to dry mushrooms in the United States. Four firms, located in California, Oregon, Texas, and Pennsylvania, are reported by industry sources to be the only U.S. producers of freeze-dried mushrooms.

Channels of Distribution

In 1978/79, U.S. mushroom growers sold about equal parts of their output to processors and to the fresh market. The proportion of such output sold to processors was much less than in former years; in 1970/71, for instance, 72 percent of U.S.-grown mushrooms were sold to processors. Generally, the better quality mushrooms are offered first to the fresh market because mushrooms sold to the fresh market demand premium prices compared with those sold for processing.

Fresh mushrooms

Buyers are usually wholesalers at fresh-market fruit and vegetable distribution centers; they 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. Buyers repackage some of the mushrooms; they sell them 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 United States 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 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 domestic product; (2) canner-importers, which market both the domestic and foreign products; and (3) importers, which market only the foreign product. 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 1978/79, 65 percent of domestically canned mushrooms were sold in retail-size containers, and 35 percent were sold in institutional-size containers. During the same marketing year, 38 percent of the imported product was sold in retail-size containers, and 62 percent, in institutional-size containers. The percentage distribution of sales of U.S.-produced and imported canned mushrooms for the marketing years 1970/71 to 1978/79 are shown in the following table.

Mushrooms, canned: Percentage distribution of sales of U.S.-produced and imported mushrooms, by container sizes, marketing years 1970/71 to 1978/79

Marketing year beginning July 1—	U.S. product 1/			Imported product 1/		
	Retail size	Institutional size	Total	Retail size	Institutional 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	42	58	100
1976/77	61	39	100	34	66	100
1977/78	65	35	100	37	63	100
1978/79	65	35	100	38	62	100

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

Source: Sales of U.S. product, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; sales of the imported product, compiled from official statistics of the U.S. Department of Commerce.

Competition between canned and fresh mushrooms

Another consideration in the marketing of mushrooms is the extent to which canned mushrooms compete for sales with fresh mushrooms. The petitioner alleges that canned and fresh mushrooms are not interchangeable products and consequently are not "like" or "directly competitive." Counsel for the Korea Canned Goods Export Association argues that canned and fresh mushrooms are "basically interchangeable in their end uses; one form is selected over the other due to availability and cost."

In order to assess any competitive situation that exists between canned and fresh mushrooms, the Commission staff interviewed buyers for 48 retail and wholesale grocers, restaurants, and pizza chains by telephone. 1/ The outlets were chosen randomly, were located throughout the United States and, for restaurants and pizza chains, included outlets offering food at a wide range of prices. In the interviews the Commission staff addressed three main questions. First, on a theoretical basis, are canned and fresh mushrooms viewed by the consumer as products that can be used interchangeably? Second,

1/ Because of the small number of interviews conducted, it should be emphasized that percentages reported in the text are not statistically precise. Percentages are reported only to avoid excessive use of adjectives such as "most" and should be interpreted as such.

in practice, are the two products used interchangeably for the same end uses by the same consumer? Finally, where the products are not used interchangeably, what factors lead a purchaser to select one type over another?

With reference to the first question, buyers for supermarkets indicated that their customers feel it is possible to use canned and fresh mushrooms interchangeably: more than 90 percent of the buyers stated that "most" of their customers would be willing to substitute one product for the other in cooked foods if one type is unavailable. (Buyers indicated that most of their customers would not use canned mushrooms in salads.)

Most of the buyers for the supermarkets contacted were not certain whether or not individual customers use the products interchangeably for the same end uses. However, it was the opinion of all the buyers that their customers purchase canned and fresh mushrooms for different reasons; two-thirds stated that their customers recognize that canned and fresh mushrooms differ in some characteristics and buy accordingly. (The other one-third of the buyers could not comment.) The buyers were also asked to list some of the key characteristics that led their customers to purchase each product. For those customers buying canned mushrooms, 94 percent of the buyers mentioned "ease of preparation," and 88 percent felt that longer storage times were key factors in their customers' purchasing decisions. The lower price of canned mushrooms was cited by 65 percent; "availability" was cited as a key factor by 59 percent. In order to assess the comparative importance of such economic factors as price and availability, the buyers were asked whether their customers who buy canned mushrooms would continue to do so if fresh mushrooms were comparably priced and always available. Forty-one percent of the buyers stated that "most" of their customers would continue to buy canned mushrooms; 12 percent felt that about half of their customers would do so; 6 percent indicated that "most" of their customers would change to fresh mushrooms; and 41 percent could not respond. For those customers buying fresh mushrooms, taste, appearance, and texture were the key factors most often cited for their purchasing decisions.

Restaurants were asked to describe how they served canned and fresh mushrooms. Buyers reported using mushrooms in salads, stews, casseroles, sautes, and sauces, and on pizza. Of the foods mentioned, each was prepared using canned (and fresh) mushrooms by at least one restaurant with the exception of salads. No restaurants reported serving canned mushrooms in salads. However, individual restaurants did not use the products interchangeably for the same end use. Of the restaurants contacted, only one used both canned and fresh (at different times) when preparing sautes. When asked if they substitute canned mushrooms for fresh mushrooms if fresh are not available at the time or in the quality or quantity desired, the great majority of buyers responded that the availablity of fresh mushrooms has never been a problem. Three buyers had substituted or would substitute canned for fresh mushrooms; four buyers had discontinued or would discontinue the dish rather than use canned mushrooms in place of fresh.

Of all the restaurants contacted, 70 percent purchased only fresh mushrooms, 15 percent purchased only canned mushrooms, and 15 percent purchased both canned and fresh (but for different purposes). Of the restaurants serving pizza, half used only canned and half used only fresh mushrooms.

Buyers for restaurants serving fresh mushrooms reported that they did so because of taste, appearance, and texture. A number of the buyers indicated that their customers expect that only fresh vegetables will be served. Two buyers offered the comment that, for certain dishes, a cook cannot control the flavor of the dish using canned mushrooms because of the liquid in which the mushrooms are packed. One restauranteur stated that using fresh mushrooms was a matter of "personal pride."

Most of the buyers indicated that using fresh mushrooms is more expensive than using canned because the purchase price per pound of fresh mushrooms is higher, additional labor is required to clean and cut fresh mushroooms, and fresh mushrooms must be stored in holding coolers if not used within a relatively short period of time. However, the use of fresh mushrooms appears to be somewhat price insensitive--the image of the product and perceived qualitative differences are important factors in buying decisions.

Of the restaurants using canned mushrooms, 75 percent cited "ease of preparation" and 63 percent mentioned "ability to store indefinitely without refrigeration" as key factors in their decision to purchase canned mushrooms. (Only 13 percent specifically mentioned the lower price of canned mushrooms.) When asked if these factors were so important that they would continue to purchase canned mushrooms even if fresh were comparably priced, 62 percent indicated they "definitely" would; 25 percent said they "probably" would; 13 percent were not sure.

The decision process among restaurants serving pizza to use fresh or canned mushrooms is similar to that among restaurants serving other types of food. The perceived improvement in quality and image derived from using fresh mushrooms is apparently weighted against the lower price, reduction in labor, ease of storage, and convenience of using canned mushrooms.

Because of the small number of interviews conducted, it is not possible to adequately analyze or quantify the variables involved in a buyer decision to select canned or fresh mushrooms. For restaurant buyers, this decision appears to be influenced by the interaction of three sets of variables or factors. The decision depends on (1) economic variables such as price and availability; (2) factors intrinsic to the physical structure of the mushroom (i.e., the ability to store canned mushrooms for a longer period of time than fresh mushrooms); and (3) factors related to the purchaser. Included in the latter factors are the perceived expectations of the clientele of the restaurant, the prices the restaurant can charge, local labor costs, and the restaurant's corporate structure (i.e., chains with central buying services and shipping centers may have more difficulty handling purchases of fresh mushrooms than chains with restaurants which handle their own sourcing locally). However, at some point, on the basis of the relevant factors, the decision is made to use either canned or fresh mushrooms for a specific end use (as described above, only one of the restaurants contacted used fresh and canned mushrooms interchangeably in the same food).

U.S. Importers

Fresh mushrooms

In 1978/79, 15 firms accounted for the great bulk of the imports of fresh mushrooms. This commodity is extremely perishable in the fresh condition and, as such, has been insignificant (less than 0.5 percent) in terms of total U.S. imports of all mushrooms. 1/

Canned mushrooms

About 100 concerns imported significant quantities of canned mushrooms into the United States in 1978/79. Several importers 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 total have their principal U.S. offices in New York City.

In addition, there are several dozen firms that import a variety of groceries associated with oriental cuisine, together with small quantities of canned mushrooms. 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 subpart D, part 8, schedule 1, of the Tariff Schedules of the United States. The column 1 and column 2 rates of duty currently applicable to imports from all countries are shown in the following tabulation:

TSUS item No.	Commodity	Rates of duty 1/	
		Col. 1	Col. 2
	Mushrooms:		
144.10	Fresh	5¢ per lb + 25% ad val.	10¢ per lb + 45% ad val.
144.12	Dried	2.9¢ per lb + 9.3% ad val.	10¢ per lb + 45% ad val.
144.20	Otherwise prepared or preserved	3.2¢ per lb on drained weight + 10% ad val.	10¢ per lb on drained weight + 45% ad val.

1/ In effect on Jan. 1, 1980.

1/ During 1978/79, the share of total U.S. imports from all countries, other than those designated as being under Communist control, that entered under TSUS item 144.12 (fresh) was 10 percent, while the share that entered under item 144.20 (otherwise prepared or prepared) was 90 percent.

These rates reflect concessions granted by the United States in the General Agreement on Tariffs and Trade. The column 2 (statutory) rate of duty on "otherwise prepared or preserved" mushrooms (i.e., canned mushrooms), 10 cents per pound on the drained weight plus 45 percent ad valorem, has been modified four times for countries entitled to column 1 or most-favored-nation (MFN) status in trade agreements--three times in negotiations with France and once in negotiations with the European Community (EC). The most recent of these reductions became effective in July 1963 (in the Dillon round of trade negotiations) (table 1, app. B). The ad valorem equivalent (AVE) of the present MFN rate averaged 13.1 percent based on the value of imports from all countries in 1978/79 (table 2), whereas the AVE of the 1969/70 rate averaged 15.6 percent.

The column 2 (statutory) rate on dried mushrooms, 10 cents per pound plus 45 percent ad valorem, has been modified four times for countries entitled to MFN treatment in trade agreements—twice in negotiations with Japan and once each in the Kennedy and the Tokyo rounds. As a result of concessions granted by the United States in the Tokyo round, the MFN rate on dried mushrooms is being reduced in eight annual stages; the final (eighth) stage is 1.3 cents per pound plus 4 percent ad valorem.

The column 2 (statutory) rate on fresh mushrooms, 10 cents per pound plus 45 percent ad valorem, has been modified once in an agreement with Canada (1947-Geneva Round). 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 AVE's of the present MFN rates based on the value of imports from all countries in 1978/79 averaged 10.5 percent for dried mushrooms and 32.3 percent for fresh mushrooms, and the AVE's of the 1970 rate averaged 14.5 percent for dried mushrooms and 32.3 percent for fresh mushrooms.

Mushrooms are not among the articles eligible for duty-free entry under the Generalized System of Preferences. Imports of dried mushrooms (item 144.12) from least developed developing countries are dutiable at 1.3 cents per pound plus 4 percent ad valorem.

The Question of Increased Imports

U.S. imports

U.S. imports consist of canned, dried, and fresh or frozen mushrooms. During the marketing years 1970/71 to 1977/78, aggregate U.S. imports of mushrooms in all forms increased irregularly from 53 million to 154 million pounds (fresh-weight basis). 1/ In 1978/79, imports dropped to 147 million pounds (table 3). During July-March 1979/80, imports amounted to 131 million

1/ For convenience in discussion, data on canned products in this report were converted to a fresh-weight equivalent on the basis of 1 pound of drained weight to 1.538 pounds of fresh weight, and 1 pound of dried product to 10 pounds of fresh mushrooms.

pounds, compared with 103 million pounds in the corresponding period of 1978/79. Canned mushrooms increased their share of the total from about 80 percent in 1970/71 to 90 percent in 1978/79. The remainder of the imports has consisted almost entirely of dried mushrooms; imports of fresh mushrooms and frozen mushrooms during the same period were negligible.

Canned mushrooms.--U.S. imports of canned mushrooms (including negligible amounts of frozen mushrooms) increased irregularly from 43 million pounds (fresh-weight basis) in marketing year 1970/71 to 141 million pounds in 1977/78 and then declined to 133 million pounds in 1978/79 (tables 3-6). Imports were valued at $88.1 million in 1978/79. During July-March 1979/80, imports amounted to 116 million pounds, compared with 90 million pounds in the corresponding period of 1978/79. U.S. imports of canned mushrooms during 1970/71 through 1979/80 are shown in table 8 by months.

Before the 1960's, France had been the principal supplier of U.S. imports of canned mushrooms. In the 1960's, Taiwan and Korea became the leading suppliers. Imports from Taiwan began in 1960/61, and those from Korea, in 1963/64. In the marketing year 1978/79, Taiwan supplied 49 percent of the canned mushrooms imported from all supplying countries (table 9). In the same marketing year, Korea was the second largest source, supplying 31 percent, and Hong Kong was third, with 15 percent. Other suppliers included Costa Rica and the Dominican Republic. China, an important world exporter of canned mushrooms, has supplied less than 1 percent of the total U.S. imports in recent years. During January-May 1980, however, imports from China rose sharply to 2.6 million pounds, compared with only 46,900 pounds in the corresponding period of 1979. China's share of total imports amounted to 5.2 percent through May 1980. Tables 9 and 10 show imports, by principal sources, on a drained-weight basis, for recent marketing years and calendar years, respectively.

In recent years about three-fifths of the imports of canned mushrooms have been packed in institutional-size containers (holding more than 9 ounces each) and the remainder, in retail-size containers (holding not more than 9 ounces each). The percentage distribution varies, however, by country. While most of the imports from Korea, France, Japan, and China are generally in institutional-size containers, somewhat more than half of the imports from Taiwan (the major foreign supplier) enter in retail-size containers. Table 11 shows the percentage distribution of canned mushroom imports by container sizes and by principal sources for the marketing years 1974/75 to 1978/79.

Dried, frozen, and fresh mushrooms.--During the marketing years 1970/71 to 1978/79, annual U.S. imports of dried mushrooms increased irregularly from 1.0 million pounds in 1970/71 to 1.4 million pounds in 1978/79 (table 12). Imports were valued at $9.7 million in 1978/79. During July-March 1979/80, imports amounted to 0.9 million pounds, compared with 1.0 million pounds in the corresponding period of 1978/79. In 1978/79, combined imports from Japan, Taiwan, and Chile accounted for 91 percent of total imports (by weight) of dried mushrooms.

In relation to total imports of mushrooms in all forms, imports of fresh or frozen mushrooms (virtually all frozen) have been minor. In 1974/75, there were practically no imports of fresh mushrooms, and the statistics on the

small imports of frozen mushrooms were reported in combination with those on canned mushrooms. During 1975/76 to 1978/79, annual U.S. imports of fresh mushrooms increased steadily from 6,000 to 413,000 pounds; in 1978/79, imports were valued at $283,446 (table 13). Canada accounted for 96 percent of the imports and the Dominican Republic accounted for the remainder in 1978/79.

Since January 1, 1978, imports of frozen mushrooms have been reported under a separate statistical class. Such imports amounted to 2.9 million pounds in 1978 and 3.0 million pounds in 1979, and were valued at $2.2 million in 1979. Taiwan accounted for 81 percent of all imports of such mushrooms and Canada, for 17 percent. Imports of frozen mushrooms in 1978 and 1979 were as follows (in thousands of pounds):

Source	1978	1979
Taiwan	2,347	2,385
Canada	469	501
Japan	38	75
Hong Kong	38	0
All other	1/	0
Total	2,892	2,961

1/ Less than 500 pounds.

U.S. imports of straw mushrooms have been reported under a separate statistical class since January 1, 1979. In 1979, imports of straw mushrooms amounted to 3.3 million pounds, 98 percent of which came from Taiwan; imports were valued at $2.3 million. Imports of straw mushrooms (processed-weight basis) from principal sources during 1979 are shown in the following tabulation:

Source	Quantity (1,000 pounds)
Taiwan	3,211
Hong Kong	22
Japan	21
Korea	11
China	2
All other	8
Total	3,275

The ratio of U.S. imports to domestic production

Ratio based on aggregate mushroom production.--If aggregate U.S. imports of canned, dried, and frozen mushrooms are compared with domestic production of fresh mushrooms for all purposes, the ratio of imports to production increased from 26 percent in 1970/71 to 39 percent in 1977/78, as shown in table 3. In 1978/79, total imports of 147 million pounds were equivalent to 33 percent of the U.S. fresh mushroom production of 452 million pounds. In the latest marketing year, production was the highest on record.

Ratio based on canned mushroom production.--The ratio of U.S. imports of canned mushrooms to domestic production of canned mushrooms increased irregularly from 38 percent in 1970/71 to 96 percent in 1978/79, as shown in the following table.

Mushrooms, canned: U.S. imports and production, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

Period	Production 1/	Imports 1/	Ratio of imports to production
	Million pounds	Million pounds	Percent
Marketing year beginning July 1--			
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
1976/77	156	107	69
1977/78	146	141	97
1978/79	139	133	96
July-March--			
1978/79	103	90	87
1979/80	106	116	109

1/ Fresh-weight basis.

Source: Imports, compiled from official statistics of the U.S. Department of Commerce; production, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The ratio of U.S. imports to domestic consumption

Ratio based on aggregate mushroom consumption.--If apparent consumption is construed to include domestic production of fresh mushrooms (intended for use in both the fresh- and the processed-mushroom markets) less exports of fresh and canned mushrooms from the United States plus U.S. imports of fresh and processed mushrooms (canned, dried, and frozen), the ratio of imports to apparent consumption during the period 1970/71 to 1978/79 ranged from 20 percent in 1970/71 to 28 percent in 1977/78; the ratio was 25 percent in the marketing year 1978/79 (table 3).

Ratio based on canned mushroom consumption.--The ratio of imports of canned mushrooms to apparent U.S. consumption of such mushrooms increased irregularly from 27 percent in 1970/71 to 49 percent in 1978/79. As consumption was increasing during most of the 9-year period, the imports of canned mushrooms were accounting for an increasing share of a generally rising demand, as shown in the following table.

Mushrooms, canned: U.S. imports and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

Period	Imports 1/	Apparent consumption 1/	Ratio of imports to consumption
	Million pounds	Million pounds	Percent
Marketing year beginning July 1—			
1970/71	43	158	27
1971/72	62	189	33
1972/73	74	189	39
1973/74	70	178	39
1974/75	77	193	40
1975/76	88	201	44
1976/77	107	247	43
1977/78	141	287	49
1978/79	133	273	49
July-March—			
1978/79	90	197	46
1979/80	116	219	53

1/ Fresh-weight basis.

Foreign supply and demand

Taiwan, France, the Netherlands, Korea, and China are the major world exporters of canned mushrooms. The principal importing countries are West Germany, the United States, and Canada. Australia, Japan, Sweden, and Switzerland also import significant amounts. An indication of the relative importance of the leading suppliers and importers of canned mushrooms during 1978 is provided in the following tabulation, which is based on data in the Foreign Agricultural Service's Foreign Agriculture Circular, November 1979:

Country	Quantity
	Million pounds, fresh-weight basis
Exporters:	
Taiwan	125.4
France	155.2
Netherlands	114.4
Korea	83.1
China 1/	70.1
Importers:	
West Germany	354.5
United States	136.0
Canada	69.0

1/ Estimated largely on the basis of import statistics from West Germany and Canada, which are believed to be China's 2 largest markets.

Throughout most of 1973-78, Taiwan was the leading world exporter of canned mushrooms as well as the leading source of U.S. canned mushroom imports. However, after reaching a record level of 245.3 million pounds in 1977, Taiwan's exports plummeted to 125.4 million pounds in 1978, largely as a result of severe trade-restricting measures that were imposed in major consuming nations. The other four major exporting countries have experienced a moderate but steady growth in mushroom exports in recent years. The combined exports of France, the Netherlands, Korea, and China increased at a rate of about 7 percent annually during 1973-78. Among these four suppliers, only Korea has been exporting significant amounts of canned mushrooms to the United States.

West Germany is the world's leading importer of canned mushrooms. During 1978, West German imports amounted to 355 million pounds, roughly 2 1/2 times the quantity imported by the United States, the world's second largest importer. Well over half of the West German imports generally come from France and the Netherlands. However, West Germany has often imported significant amounts of mushrooms from Korea, Taiwan, and China in recent years, as shown in the following table.

Mushrooms, canned: Average annual share of imports into West Germany, the United States, and Canada, by major suppliers, 1973-78

(In percent)

Exporters	Importers		
	West Germany	United States	Canada
Taiwan	15.0	62.3	37.2
France	32.1	1/	4.0
Netherlands	28.3	1/	1/
Korea	4.6	27.5	31.4
China	15.1	1/	16.9
All other	4.9	10.2	10.5
Total	100.0	100.0	100.0

1/ Negligible; included in "all other".

Source: Foreign Agricultural Service, Foreign Agriculture Circular, November 1979. The data are the reported official trade statistics of the individual importing countries.

The United States and Canada, the second and third largest importers of canned mushrooms, respectively, both rely heavily on Taiwan and Korea as their chief sources of imports. In addition, Canada has turned increasingly to China as a supplier in recent years, and, although U.S. imports from China had been insignificant through 1979, averaging 196,900 pounds (fresh-weight basis) annually since 1973, import volumes for the first 6 months of 1980 were up substantially at about 6 percent of total imports of canned mushrooms.

According to U.S. Department of Agriculture (USDA) reports, the quantities of imported canned mushrooms in each of the three leading importing countries—West Germany, the United States, and Canada--were lower in 1978/79 than in 1977/78. EC import restrictions on canned mushrooms that were instituted in mid-1978 were responsible for the drop in imports into West Germany. Lower imports from Taiwan, which resulted from voluntary restraints, more than offset increases from Korea and China and reduced total imports of canned mushrooms into the United States and Canada. 1/

Foreign trade restraints

European Community.—The EC has restricted imports of preserved mushrooms since at least 1975 by a combination of a 23 percent ad valorem tariff and several import-licensing systems with varying degrees of restraint. Between July 1975 and October 1976, the then current import-licensing system was progressively liberalized in steps from 25 percent to 100 percent of the level of imports of preserved mushrooms which entered in the reference period (either 1973 or the annual average of imports during 1971-73).

Beginning in January 1977, a new import-licensing system replaced the previous one; it permitted the issuance of import licenses for preserved

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mushrooms without any quantitative restraints. The ensuing period of more liberalized trade led to an increase in imports of preserved mushrooms, primarily from Taiwan and South Korea. In response to the increase, in 1978 the EC halted imports of preserved mushrooms from third-world countries (nations outside the Community) except for those from China, which agreed to limit its exports to an undisclosed level. (However, the Community did temporarily suspend the issuance of import licenses to China in June and July 1979 because the level of applications exceeded the quantity agreed upon.) This restrictive import policy generally persisted through 1979. As a result of this protection, mushroom prices in Europe have risen and the EC mushroom industry, concentrated in France and the Netherlands, has recovered from the financial losses sustained during the 1977/78 market glut. 1/

Since January 1980 the EC has appeared to be easing its restrictive import policies. In the first two months of 1980, the EC allowed limited imports of preserved mushrooms from Korea and China, which were not to exceed 24 percent of their respective quantities in 1977 and 1978. Beginning on March 1, 1980, the EC instituted its current import-licensing system. Korea and China have agreed to limit their exports of preserved mushrooms to about 11 million and 51 million pounds, respectively. Import licenses will not be issued for preserved mushrooms from Taiwan until an acceptable import level can be negotiated. To date, these negotiations have not been completed. Import licenses for preserved mushrooms from all other non-EC countries will be issued for up to 10 percent of each importer's 1977 and 1978 quantities. Those importers having no 1977 and 1978 quantities will be issued import licenses which collectively will be restricted to 10 percent of each EC importing State's quantities in 1977 and 1978.

The USDA reports that in the foreseeable future, it is likely that the EC market for preserved mushrooms will rely primarily on negotiated import quotas to prevent a surge of imports. The present licensing system will effectively restrict preserved mushroom imports to a negotiated level.

Canada.--Canada currently has no quantitative import restrictions on preserved mushrooms, but in the past has had voluntary export agreements with Taiwan and Korea. Canadian imports of canned mushrooms in 1977 and 1978 were 59.0 million pounds and 49.1 million pounds (fresh-weight basis), respectively. This compares with the 1973-78 annual import average of 37.9 million pounds.

Foreign production

Taiwan.--The Commission's 1977 report on investigation No. TA-201-17 stated that Taiwan's production of canned mushrooms, after declining from a peak in 1971/72, had increased in 1975/76 to a level that was about 27 percent greater by quantity than in the previous season. This uptrend continued through 1977/78, when Taiwan's canned mushroom production reached 112 percent of the 1971/72 level. After 1977/78, canned mushroom production in Taiwan fell in each of the two succeeding marketing years to an estimated level in 1979/80 of about 3 percent less than the average for the preceding 4 years or about 12 percent less than the peak production level of 1977/78.

1/ Foreign Agricultural Service, Foreign Agriculture Circular, November 1979.

According to USDA sources, the EC ban on mushroom imports from Taiwan, which was instituted in 1978, has been the major factor causing depressed conditions in Taiwan's canned mushroom industry, which relies on exports for more than 90 percent of its total sales. The 48-percent decline in exports during 1978, which was largely a result of the ban, led to a massive buildup of canned mushroom stocks in Taiwan. In turn, mushroom growers, who supply about 80 percent of their output to the canning industry, were forced to scale back their production targets. Because of the continuing weakness in demand and persistent low prices in the face of rising production costs, a further substantial decline in mushroom output is expected during 1979/80.

The USDA agricultural attache in Taiwan reported in October 1979 that the Taiwan Council for Agriculture Planning and Development has urged mushroom exporters to cope with mounting competition and protectionism by undertaking the following:

1. Fully utilize the U.S. market up to the voluntarily restricted level (about 68 million pounds, fresh-weight basis) as established in 1978. 1/

2. Dispatch trade missions to the Middle East, South America, Africa, and the Far East to explore new markets.

3. Improve mushroom-processing techniques.

4. Consolidate operations and upgrade quality.

Although Taiwan's best hope toward a recovery of the industry in the short term depends upon its success in gaining renewed access to the EC market, discussions between Taiwanese and EC officials have not yet produced agreement on an acceptable level of imports.

Korea.—On the basis of preliminary estimates of mushroom production for 1979/80, it appears that the long-term growth in Korea's mushroom industry has stalled. The slight increase in the area devoted to mushroom production in 1979/80 was more than offset by a decline of about 2 percent in the average yield, resulting in a mushroom production level about 1 percent less than the alltime high achieved in 1978/79. However, USDA sources doubt that the estimated 1979/80 production level will be achieved, because the low grower prices which prevailed in 1978/79 are not expected to increase significantly in 1979/80. USDA sources attribute these low prices in Korea to the shipments of salt-brined mushrooms to the Hong Kong market by some Taiwan mushroom growers.

As in Taiwan, about 80 percent of Korea's output of fresh mushrooms is canned, and about 90 percent of the output of canned mushrooms is exported. In 1978/79, the last full year for which data are available, Korea increased its exports of canned mushrooms by about 18 percent from the preceding year.

1/ The USTR reports that this restriction was neither a formalized quota nor a voluntary agreement. Rather, it was an affirmation of Taiwan's intentions to limit its exports of canned mushrooms to the United States. The limitation as effective through Nov. 30, 1979.

The U.S. agricultural attache in Korea reported that a combination of low prices for mushrooms, high labor costs during the harvesting season, and import quotas established by some major canned-mushroom-importing countries have caused a recession in the Korean mushroom industry. In 1976, there were 67 mushroom-processing plants in Korea. Currently, there are only 58. As a result, the Korean Ministry of Agriculture and Fisheries has planned to extend about $2.9 million in 12.5-percent, 6-month loans to Korean mushroom canneries. In addition, a quasi-governmental organization, the Agriculture and Fishery Development Corporation, is conducting training courses for plant quality-control officers. According to testimony submitted at the hearing, Korea and the EC signed an agreement on mushroom trade on October 19, 1979, with Korea to resume the export of canned mushrooms to the EC shortly thereafter.

China.--While there is little verifiable information on the mushroom industry in China, trade data reported by major importers of canned mushrooms suggest that China's recent annual exports may be comparable in quantity with Korea's annual exports. In its two major markets, West Germany and Canada, China achieved average annual export growth rates of 3.7 percent and 21.7 percent, respectively, for 1975-78. However, exports to West Germany fluctuated widely from year to year. The USDA reports that exports of canned mushrooms from China are expected to increase substantially in the long run. This forecast was based on the past growth performance of China in its two major export markets, its recent imports of significant amounts of canning equipment, and the high degree of labor intensity associated with mushroom production.

While it is estimated that China may have increased its total exports of canned mushrooms in 1978 by about 14 percent, its exports to the United States remained insignificant (believed to be less than 1 percent of China's total exports of canned mushrooms). However, the USDA reports that this may change as a result of the United States extending MFN treatment to China on February 1, 1980. 1/ Imports from China now enter under a column 1 (MFN) rate of duty of 3.2 cents per pound on drained weight plus 10 percent ad valorem. This is substantially less than the column 2 (statutory) rate of 10 cents per pound on drained weight plus 45 percent ad valorem. Indeed, imports from China during January-June 1980 were 4.1 million pounds, compared with 46,923 pounds in the corresponding period of 1979.

The Commission's 1977 report on investigation No. TA-201-17 indicated that some trade sources felt that China posed an indirect threat to the U.S. mushroom industry. Low-price canned mushrooms from China might displace exports from other sources to the principal importing countries, such as West Germany, thereby diverting exports to the U.S. market. Mushrooms from these other sources are already largely excluded from the European market by quantitative restrictions.

1/ Foreign Agricultural Service, Foreign Agriculture Circular, November 1979.

Hong Kong.—Since 1976 Hong Kong has become a significant exporter of canned mushrooms to the United States.

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

U.S. production

Fresh mushrooms.—Annual U.S. production of fresh mushrooms (sold not only in the fresh market but also to canners and other outlets, including soup processors) increased from 207 million pounds in 1970/71 to 452 million pounds in 1978/79, as shown in the following table.

Mushrooms: U.S. producers' sales to fresh market and to processors, marketing years 1970/71 to 1978/79

Marketing year beginning July 1—	Sales to fresh market		Sales to processors 2/		Total production 1/
	Quantity 1/	Percent of total production	Quantity 1/	Percent of total production	
	Million pounds		Million pounds		Million pounds
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
1976/77	151	44	196	56	347
1977/78	191	48	208	52	399
1978/79	228	50	224	50	452

1/ Fresh-weight basis.
2/ Includes sales to all processors (canners, soup manufacturers, driers, and so forth.

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

During the period 1970/71 to 1978/79, mushroom sales to the fresh market nearly quadrupled and sales to processors increased by 50 percent. The share of reported annual production of fresh mushrooms shipped to processors (including canners, soup processors, driers, and others) declined from 72 percent of the total in 1970/71 to 50 percent in 1978/79. In the same period, the share sold to the fresh market increased from 28 to 50 percent of the annual output. The increasing share sold to the fresh market can be attributed, in part, to the establishment of large-scale mushroom-growing operations for the fresh market by some food-processing concerns, such as Ralston Purina Company and Campbell Soup Company.

Canned mushrooms.--U.S. production of canned mushrooms increased irregularly from 113 million to 156 million pounds (fresh-weight basis) from 1970/71 to 1976/77, and then decreased to 139 million pounds in 1978/79 (table 4). During July-March 1978/79 and July-March 1979/80, production of canned mushrooms amounted to 103 million and 106 million pounds, respectively.

To assist its consideration of the question of serious injury or the threat thereof to a domestic industry, the Commission asked U.S. producers of canned mushrooms to report their annual capacities to produce such products in their domestic facilities. Responses to the questionnaires showed that the respondents' rate of capacity utilization declined from 1977 to 1979, as shown in the following tabulation:

Year	Production	Capacity	Capacity utilization
	Million pounds	Million pounds	Percent
1977	70	162	43
1978	61	178	34
1979	62	178	35

* * *. The decline in capacity utilization of the responding firms--which accounted for about 71 percent of the aggregate domestic output in 1979--is attributable, in absolute terms, more to an increase in capacity (16 million pounds) than to a decrease in output (8 million pounds). Although mushroom canners generally operate throughout most of the year, the principal canning season extends from the fall into the following spring.

U.S. sales of domestically canned mushrooms increased irregularly during 1970/71 to 1974/75, from 115 million pounds (fresh-weight basis) to 116 million pounds, respectively (table 6). Sales rose from 113 million pounds in 1975/76 to 140 million pounds in 1978/79. Sales of domestically canned mushrooms in July-March 1978/79 and July-March 1979/80 were 107 million and 103 million pounds, respectively. Table 14 shows sales of canned mushrooms on a processed-weight basis.

Domestic canners' production and sales rose substantially in 1976/77 over those in 1973/74 to 1975/76. It is generally acknowledged in the mushroom industry that the U.S. Food and Drug Administration's botulism investigation

in 1973 and 1974 affected consumers' confidence in canned mushroom products, 1/ and undoubtedly influenced demand and consequently domestic production and sales in those years and shortly thereafter. 2/ Production increased substantially in 1976/77, with canners responding to relatively high prices for their product. Low domestic inventories (canners' inventories were at a 5-year low on June 30, 1976), a general worldwide shortage of canned mushrooms, 3/ and greater demand influenced by renewed consumer confidence in canned mushrooms were all factors which probably contributed to the upward pressure placed on prices in 1976. While most of the canners enjoyed an increase in sales of canned mushrooms in 1976/77, * * *.

In recent years about two-thirds of the domestic canners' sales were of mushrooms packed in retail-size containers; the remainder were packed in institutional-size containers. More than 90 percent of the domestic product is packed in a brine solution, and the remainder consists largely of specialty packs. In 1978/79, 76 percent consisted of stems and pieces, 18 percent were sliced mushrooms, and 5 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 1978/79, sales of domestically produced frozen mushrooms rose from about 1 million to 12 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 less than 1 million pounds (fresh-weight basis) annually in recent years.

U.S. inventories

During the period 1974/75 to 1978/79, inventories of domestically canned mushrooms held by the canners ranged from a low of 16.5 million pounds (fresh-weight basis) on June 30, 1976, to a high of 35.0 million pounds on June 30, 1977, with no discernible trend (table 15). On March 31, 1980, canners' inventories amounted to 30.8 million pounds, up 14 percent from the 27.1 million pounds held on March 31, 1979. Mushrooms packed in retail-size containers accounted for over 75 percent of the inventories held on March 31, 1979 and March 31, 1980.

U.S. exports

Canned mushrooms.--Canada has historically been the principal export market for U.S. canned mushrooms. Canadian import statistics show that during the marketing years 1970/71 through 1977/78, Canadian imports of U.S.-produced

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1/ For more information on the botulism problem, refer to the Commission's report on investigation No. TA-201-10, USITC Publication 761.

2/ On June 2, 1980, the Food and Drug Administration announced the recall of some canned mushrooms produced by a Pennsylvania company after one can was found to contain botulism toxin.

3/ For more information on the foreign industry, refer to the Commission's report on investigation No. TA-201-17, USITC Publication 798.

canned mushrooms ranged from 123,000 pounds (fresh-weight basis) in 1970/71 to 563,000 pounds in 1973/74, and averaged 316,000 pounds a year. In 1978/79, U.S. exports to Canada amounted to 146,000 pounds.

Other large export markets for U.S.-produced canned mushrooms in 1978/79 were Venezuela (161,000 pounds) and Saudi Arabia (153,000 pounds). Total U.S. exports to all markets amounted to 886,000 pounds in that year.

Fresh, frozen, and dried mushrooms.--Canada is also an important export market for U.S. fresh mushrooms. Canadian import statistics show that annual imports of fresh mushrooms from the United States during the marketing years 1970/71 to 1977/78 ranged from 0.6 million pounds (fresh-weight basis) in 1976/77 to 6.5 million pounds in 1973/74 and averaged 2.0 million pounds a year; in 1978/79, about 1.1 million pounds was imported by Canada from the United States (table 16). 1/ Data on U.S. exports of frozen and freeze-dried mushrooms are not available; however, they are believed to be negligible in relation to exports of canned and fresh mushrooms.

U.S. producers' efforts to compete with imports

In its efforts to compete more effectively with imports, the domestic mushroom industry has helped to fund university research projects aimed at improving production efficiency and upgrading the quality of mushrooms. During the past decade, several research projects at The Pennsylvania State University (Penn State), which were financed jointly by the American Mushroom Institute and the U.S. Department of Agriculture, have led to important breakthroughs in production methods. Two major innovations, the plastic net system, an improved materials-handling system which utilizes conveyors, and the mechanical spawn-mixing machine, which automatically adds nutritional supplements and insecticides to mushroom beds, have been adapted for commercial use by the industry. During the past 5 years, these automated methods have reduced the amount of labor required in mixing and loading operations and have contributed to a rise in yields per square foot. At present, work on a unitized ventilation machine aimed at reducing energy costs and improving environmental controls is continuing at Penn State. However, work on a mechanical harvester, which had gone on for several years, has been terminated because of a lack of funds.

Although these industry-supported efforts would appear to give U.S. firms a degree of technological superiority over their counterparts abroad and also allow the substitution of capital for labor, one caveat should be noted. In most cases, the results of the research at Penn State are readily accessible to foreign as well as domestic mushroom canners and growers. Foreign firms have sometimes been able to apply these U.S.-developed techniques to their own

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1/ U.S. exports of fresh mushrooms were not separately reported before July 1, 1978. In the first full marketing year for which U.S. data are available, exports to all markets were reported at 302,000 pounds, of which 231,000 pounds went to Canada. It is believed that some of the exports from the United States were misclassified in late 1978, when the new statistical class was added.

operations not long after U.S. firms have done so. As a result, the advantages enjoyed by U.S. firms may be short lived. A case in point is the vacuum-processing system which was recently developed at Penn State to reduce mushroom shrinkage during canning. Although * * * were probably the first companies to use this process commercially in the United States, evidence indicates that several French firms have also adapted this system for commercial use.

U.S. employment

Mushroom canners.--Employment data were developed from Commission questionnaires covering the marketing years 1976/77 through 1978/79, July-March 1978/79, and July-March 1979/80. The responses of 20 mushroom-processing firms, representing 92 percent of domestic canned mushroom production for calendar year 1979, are shown in the following tabulation:

Item	Marketing year beginning July 1--			July-March--	
	1976/77	1977/78	1978/79	1978/79	1979/80
Average number of production and related workers employed in--					
All operations	2,425	2,434	2,214	2,300	2,148
Mushroom-canning operations	1,739	1,737	1,593	1,660	1,531
Mushroom-growing operations	639	650	584	604	584
Number of hours worked by production and related workers employed in--					
All operations--1,000 hours	1,933	2,081	1,890	1,432	1,211
Mushroom-canning operations--1,000 hours	1,341	1,536	1,412	1,075	931
Mushroom-growing operations--1,000 hours	566	524	445	332	346

Despite minor year-to-year fluctuations, it is evident that employment and hours worked in mushroom-canning operations and in mushroom-growing operations of the respondent firms generally declined throughout the period. The average number of production and related workers employed in mushroom-canning operations during July-March 1979/80 was 8 percent less than during the corresponding period of 1978/79, and the number of hours worked by production and related workers employed in such operations during 1979/80 was 13 percent less. The average number of workers employed in mushroom-growing operations during July-March 1979/80 was about 3 percent less than during July-March 1978/79, but the number of hours worked rose 4 percent.

In response to a petition for import relief filed on behalf of workers and former workers who had been engaged in processing mushrooms at the Losito Mushroom Corporation in Toughkenamon, Pa., the Department of Labor initiated

an investigation on January 30, 1978. On July 26, 1978, the Labor Department determined that because imports had contributed importantly to declines in sales and to the unemployment of canners, workers who were laid off by Losito Mushroom Corporation between January 10, 1977, and July 26, 1978, were eligible to apply for adjustment assistance. By May 1, 1980, thirteen workers' had received a total of $18,462 in trade adjustment assistance.

Mushroom growers.—The Commission also sent questionnaires to a sample of domestic mushroom growers to obtain data on employment. The sample included both large and small growing operations. The number of employees and the hours worked for those mushroom growers which responded to the questionnaire 1/ are shown in the following tabulation:

Item	Marketing year beginning July 1--				July-March--	
	1975/76	1976/77	1977/78	1978/79	1978/79	1979/80
Average number of production and related workers employed in mushroom production	2,812	3,061	3,375	3,941	3,790	3,699
Hours worked by production and related workers employed in mushroom production 1,000 hours	5,875	6,535	7,292	7,638	5,996	5,849

As shown above, over the 4 marketing years 1975/76 to 1978/79, the average number of production and related workers increased 40 percent, with an average annual rate of increase of 12 percent. Over the same 4 years, the number of hours worked by production and related workers increased 30 percent, with an average annual rate of increase of 9 percent. Slight downward trends are noted for both items in the July-March 1979/80 period over the same months in 1978/79.

Examining employment data for Pennsylvania mushroom growers and growers in other States separately shows the same general trends described above. However, from 1977/78 to 1978/79 there was a decrease in the hours worked for all sizes of Pennsylvania growers, in contrast to the increase in hours worked for other U.S. growers. The slight downward trends for both number of employees and hours worked in July-March 1979/80 is accounted for solely by a decrease among Pennsylvania growers--employment data for other U.S. growers continued to increase slightly.

1/ Data are from 44 firms representing approximately 28 percent of total fresh mushroom sales during calendar year 1979.

On the basis of the unadjusted sample data shown in the above tabulation and on an estimate of the total number of domestic growers supplied by the U.S. Department of Agriculture, the staff also estimated the average annual number of production and related workers employed in mushroom production and their hours worked for the total domestic mushroom-growing industry. 1/ As for the unadjusted sample data, both number of employees and hours worked increased from 1975/76 to 1978/79 except for a slight decrease in number of hours worked by Pennsylvania growers from 1977/78 to 1978/79. (Owing to the small number of firms responding, it was not possible to estimate total employment data for July-March 1978/79 and July-March 1979/80.)

Financial experience of U.S. producers

Mushroom canners.—The Commission mailed questionnaires to a total of 23 firms believed to be mushroom canners, requesting profit-and-loss information. Usable data were received from 18 canners on the overall operations of reporting establishments and from 17 canners on their canning operations during 1977-79. These firms represented about 90 percent of total U.S. production of canned mushrooms in 1979.

Aggregate net sales of canned mushrooms increased by 14 percent from $117 million in 1977 to $134 million in 1978, but then decreased to $124 million in 1979, or by 7 percent (table 17). The fluctuation in sales was due primarily to a decline in the volume of sales. The aggregate cost of goods sold, as a percentage of net sales, remained steady at about 89.5 percent during 1977-79. General, selling, and administrative expenses as a percentage of net sales increased from 6.9 percent in 1977 to 9.2 percent in 1979.

Aggregate net operating profit on canned mushroom operations declined by 58 percent from $4.0 million in 1977 to $1.7 million in 1979. The ratio of net operating profit to net sales dipped from 3.4 percent in 1977 to 1.3 percent in 1979, primarily because of the continuous decline in volume of sales due to the fluctuations in average sales price in the face of increasing operating costs. The number of firms reporting a net operating loss increased from 4 in 1977 and 1978 to 9 in 1979.

Aggregate net operating profit for all operations of reporting establishment(s) declined from 3.4 percent in 1977 to 2.0 percent in 1979. Most of the reporting firms were engaged in production of canned mushrooms only. The net operating profit in 1979 for the canned mushrooms under investigation (1.3 percent) was less than that for all establishment operations (2.0 percent) and far below that for the canned and dried fruits and vegetables industry as a whole (4.9 percent).

1/ The distribution of the sizes (by quantity and value of sales) of mushroom growers is skewed with a relatively small number of large growers and many mid-size and smaller growers. Employment data submitted by large, mid-size and smaller growers were weighted by the number of firms (for each size group) to arrive at an estimate of employment for the total industry.

For purposes of this analysis, however, cash flow from operations is defined as net operating profit plus depreciation and amortization. Income taxes paid are not taken into consideration owing to different tax rates which may apply to individual firms. Cash flow from operations of the reporting 13 firms declined by 29 percent from $5.3 million in 1977 to $3.8 million in 1979, as shown in the following tabulation:

Item	1977	1978	1979
Cash flow from operations before taxes----------1,000 dollars---	5,331	5,140	3,782
Capital expenditures----------do----	4,498	4,417	3,853
Ratio of capital expenditures to cash flow from operations--percent---	84.4	85.9	101.9

Capital expenditures by such firms also dropped, from $4.5 million in 1977 to $3.9 million in 1979. Capital expenditures as a percentage of cash flow from operations increased from 84.4 percent in 1977 to 101.9 percent in 1979.

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Calculations of return on investment during 1977-79 using net operating profit or loss and investment data are shown in table 18. Fixed-assets data were provided to the Commission on original-cost, net-book-value, and estimated-replacement-cost bases for 1977-79. Only 10 firms out of the responding 17 firms reported the estimated replacement cost for fixed assets. Hence those amounts presented in table 18 are understated. Usually those amounts are much higher than original cost owing to inflation. Original-cost and book-value calculations are somewhat distorted by the time period during which the investments were made. Regardless of which investment base is used, return on investment declined from 1977 to 1979.

The ratio of net operating profit to fixed assets should not be construed as a return on total investment. Total investment includes, in addition to fixed assets, investment in working capital, nonproductive facilities, and other related joint investments.

Some domestic producers did respond to the Commission's questionnaire requesting information pertaining to actual and potential negative effects, if any, of imports of canned mushrooms on U.S. producers' ability to raise capital and investment. They alleged that investors and lending institutions are very cautious and increasingly reluctant to lend money in the mushroom industry because of poor earnings and an uncertain future due to uncontrolled imports and lower sales. Some producers reported that their capital and investment are limited because of the provisions of Small Business Administration loans.

Mushroom growers.—The Commission received usable profit-and-loss data from 26 Pennsylvania mushroom growers and 13 mushroom growers in other States, accounting for about 18 percent and 10 percent, respectively, of total domestic mushroom sales in 1979. As shown in table 19, aggregate net sales of mushrooms increased by 36 percent from $81.3 million in 1976 to $110.8 million in 1978, and then declined by 9 percent to $100.7 million in 1979.

The Pennsylvania mushroom growers reported a 19-percent decline in sales from 1978 to 1979, while other growers showed an increase of 17 percent. Among the Pennsylvania growers, total sales for the largest growers decreased 20 percent from 1978 to 1979, while sales by mid-size and small growers increased 8 percent and 13 percent, respectively, as shown in the following table.

* * * * * * *

Selected financial data for U.S. mushroom growers, by regions, 1976-79

Items	1976	1977	1978	1979
Pennsylvania growers:				
Net sales----------1,000 dollars--	60,958	74,287	80,358	65,180
Total expenses----------do----	55,336	63,349	71,243	61,570
Net profit (before officers' or partners' salaries and income taxes are paid) 1,000 dollars--	5,622	10,938	9,115	3,610
Ratio of net profit (before officers' or partners' salaries and income taxes are paid) to net sales----------percent--	9.2	14.7	11.3	5.5
Other U.S. growers:				
Net sales----------1,000 dollars--	20,375	24,202	30,400	35,566
Total expenses----------do----	17,758	20,992	27,322	32,175
Net profit (before officers' or partners' salaries and income taxes are paid) 1,000 dollars--				
Ratio of net profit (before officers' or partners' salaries and income taxes are paid) to net sales---------percent--	12.8	13.3	10.1	9.5

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Aggregate net profit (before officers' and partners' salaries and income taxes are paid) from all responding mushroom growers increased by 72 percent from $8.2 million in 1976 to $14.1 million in 1977, but then declined to $12.2 million in 1978 and still further to $7.0 million in 1979 (table 19). The ratio of aggregate net profit (before officers' or partners' salaries and income taxes are paid) to aggregate net sales followed a similar trend.

The average net profit for the Pennsylvania growers showed a trend similar to that for the total domestic mushroom growers. However, the net profit for growers in other parts of the United States declined from 1977 to

1978 and then increased from 1978 to 1979. The trends in the ratio of net profit to net sales for all mushroom growers, Pennsylvania growers, and growers in other States were also similar, but the severe decline in the ratio of net profit to net sales for Pennsylvania growers was more closely in line with that for the industry as a whole.

Not all responding firms reported officers' or partners' salaries because many of them operate under a proprietorship or partnership form of business organization. With the inclusion of those salaries, reported by half of the responding firms, in the total expenses, the aggregate net profit margins for all U.S. mushroom growers during the four years 1976-79 were 8.0 percent, 12.1 percent, 8.9 percent, and 4.1 percent, respectively. If all responding firms had included salaries paid to working partners and owners, the average profit margins (before income taxes were paid) would have been lower still.

Loss of sales

Six domestic mushroom-processing firms provided the Commission with a list of customers which had allegedly ceased purchasing domestically produced mushrooms during 1978 and 1979 and had switched to imported mushrooms.

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The Question of Imports as a Substantial Cause of Serious Injury

U.S. consumption

Apparent U.S. consumption of mushrooms (both fresh and processed) has been expanding for many years. 1/ During marketing years 1970/71 to 1978/79, annual consumption increased steadily from 259 million pounds (fresh-weight basis) to 597 million pounds (table 3). The average annual rate of increase during the period was 10.9 percent. Annual per capita consumption more than doubled during the same period, from 1.27 pounds to 2.71 pounds.

During marketing years 1970/71 to 1972/73, about three-fourths of the domestic and imported mushrooms consumed (fresh-weight basis) in the United States were in the processed form (primarily canned), and about one-fourth were in the fresh form. However, since 1973/74, when processed mushrooms accounted for about 73 percent of total U.S. consumption of mushrooms, the share of consumption made up by processed mushrooms has steadily declined. In 1974/75, the share amounted to 68 percent, and in 1978/79, only 61 percent.

1/ Through June 1978, data on apparent U.S. consumption of mushrooms (including fresh and processed) are 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. Data on exports prior to July 1978 are compiled from official statistics of the Canadian Ministry of Industry, Trade and Commerce. Beginning with July 1978, export data are compiled from official statistics of the U.S. Department of Commerce.

According to industry sources, among the many factors contributing to the decreasing share of total mushroom consumption taken by processed mushrooms in recent years are the extended marketing season for fresh mushrooms; increased promotion of fresh mushrooms as low-calorie foods, ideal for use in salads and gourmet food preparations; consumer preference for the taste of the fresh product over the canned product; the availability of adequate supplies of top-quality fresh mushrooms throughout most of the country; and the fact that many people switched from canned to fresh mushrooms because of the threat of botulism in the early 1970's, and never went back to the canned product.

Canned mushrooms.--Annual U.S. consumption of canned mushrooms increased irregularly from 158 million pounds (fresh-weight basis) in 1970/71 to 273 million pounds in 1978/79, as shown in table 6. The average annual rate of increase from 1970/71 to 1978/79 was 6.8 percent. During July-March 1979/80, consumption amounted to 219 million pounds, compared with 197 million pounds in the corresponding period of 1978/79. During 1970/71 to 1978/79, per capita consumption (fresh-weight basis) is estimated to have increased from 0.77 pound to 1.22 pounds.

U.S. imports of canned mushrooms nearly tripled from 1970/71 to 1978/79, while production of the domestic product increased by less than one-fourth (table 6). Consumption of all canned mushrooms was 115 million pounds higher in 1978/79 than it was in 1970/71, and imports accounted for the bulk of that increase.

Fresh, frozen, and dried mushrooms.--U.S. consumption of mushrooms in the fresh form increased without interruption between 1970/71 and 1978/79 at an average annual rate of 18.8 percent, from 58 million pounds to 228 million pounds (table 16). During the same period, per capita consumption increased from 0.28 pound to 1.04 pounds.

Frozen mushrooms have gained in popularity in recent years. However, 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 freezing after purchase. U.S. consumption of frozen mushrooms is believed to have ranged from 5 million to 12 million pounds annually from 1976/77 to 1978/79.

Annual U.S. consumption of dried mushrooms ranged from 11 million pounds (fresh-weight basis) to 15 million pounds between 1970/71 and 1978/79; consumption increased about one-third during the last decade. Most of the dried product was supplied from foreign sources (table 3). Official annual domestic production data are not available on dried mushrooms, but trade sources indicate that such production has averaged less than 1 million pounds annually (fresh-weight basis) in the last few years.

Prices received by U.S. mushroom growers

Influence of grade on price.--The prices of mushrooms depend upon their official quality grade, whether their roots are still attached, and whether they will be consumed fresh or be processed. The USDA has a three-way quality classification system for establishing mushroom prices. Grade No. 1 has the best appearance and the highest price. Grade No. 2 is intermediate. Grade

No. 3 (also known as utility or culls), the most mature of the three, is the least attractive in appearance and the lowest in price. 1/ While the grades differ in taste, grade No. 1 having the mildest taste, no grade is universally considered the best tasting. Mushrooms are also distinguished by the terms "clean-cut" and "pulled." The former are higher in price because the roots have been cut off by the grower. Lastly, mushrooms for the fresh market, which are solely grade No. 1 mushrooms, carry a price premium because they generally have a more attractive color and also tend to be larger than those sold to processors. Within grade No. 1, therefore, there is a further quality distinction.

Seasonal price fluctuations.--The Pennsylvania Department of Agriculture publishes data series on prices received by growers for clean-cut mushrooms in the Kennett Square and Temple areas of Pennsylvania. 2/ Table 20 shows prices paid for all three grades used for processing and for grade No. 1 fresh mushrooms for the months December through May and the marketing years 1974/75 through 1979/80. 3/ The data show that seasonal average (December-May) prices rose rapidly from 1974/75 to 1976/77, generally peaked at a slightly higher

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

2/ These areas are considered representative of the U.S. industry. Alone they account for upward of 40 percent of U.S. production and a similar share of canning operations.

3/ The price series for clean-cut mushrooms was developed by using the weekly "mostly" price when available and, in its absence, computing the midpoints of the ranges of weekly prices. Monthly averages of those weekly values were then calculated. Prior to calendar year 1979, the Pennsylvania Department of Agriculture reported mushroom prices paid to growers from the middle of October through the first week of June. This period was associated with that part of the year during which the bulk of the mushroom crop produced in the United States was sold to canners. The remaining months were characterized by significantly lighter offerings, and somewhat higher prices. (The less favorable growing climate during the latter period was primarily responsible for reduced mushroom production.) However, in response to requests by mushroom growers to have prices published the entire year, in January 1979 the Pennsylvania Department of Agriculture began quoting weekly grower prices for all months of the year. Since growers and purchasers use this published price information as a market-monitoring tool, pressure to have prices reported in the traditional off-season period as well may reflect increased production during the summer months relative to the rest of the year. This is supported by the fact that much of the summer mushroom production has traditionally been directed to the fresh market, which itself has been growing over the last few years relative to the market for canned mushrooms.

level a year later, and then began a slow decline. With the exception of 1978/79, when the price difference between both types of No. 1 mushrooms on the one hand, and Nos. 2 and 3 on the other, widened, the price differences were fairly constant in absolute amounts. As a consequence, the percentage price changes in the less expensive grades were relatively greater. 1/

Prices drawn from table 20 of No. 1 grade mushrooms both fresh and for processing and the absolute and relative price premiums of the fresh mushrooms over the mushrooms for processing are shown in the following tabulation:

Marketing year beginning July 1—	Fresh	For processing	Absolute premium	Relative premium
	Cents per lb	Cents per lb	Cents per lb	Percent
1974/75	43.1	37.3	5.8	13.4
1975/76	61.3	58.8	2.5	4.0
1976/77	69.7	66.1	3.6	5.1
1977/78	71.6	67.0	4.6	6.3
1978/79	68.9	64.2	4.7	6.8
1979/80	66.9	58.8	8.1	12.0

While the fresh-mushroom premium in both absolute and relative terms expanded from 1975/76 to 1979/80, the relative premium in 1979/80 was less than that in 1974/75. It appears that the premium varies over the course of the business cycle, and that the large premiums in 1974/75 and 1979/80 can be ascribed to cyclical demand factors. This evidence seems to indicate that prices of mushrooms used for canning have not been suppressed relative to fresh mushroom prices.

Long-run price trends--A measure of change in long-run domestic prices received by U.S. mushroom growers is the annual average unit values of U.S. growers' shipments for mushrooms sold to the fresh market and to the processing market, as reported by the U.S. Department of Agriculture and shown in the following tabulation (in cents per pound of fresh weight):

1/ From 1974/75 to 1977/78, prices for No. 1 grade mushrooms sold to the fresh market rose 66 percent, while the price of No. 3 grade for processing rose 104 percent. In 1979/80, the No. 1 mushrooms fell 6 percent in price, while the No. 3 mushrooms fell 18 percent.

Item	1970/71	1971/72	1972/73	1973/74	1974/75
Fresh	54.3	57.8	55.5	57.0	60.6
Processing	39.0	41.5	38.2	36.7	40.8
Composite 1/	43.3	46.2	43.3	44.1	49.2

	1975/76	1976/77	1977/78	1978/79
Fresh	71.9	82.3	90.0	94.8
Processing	52.9	66.9	65.2	64.1
Composite 1/	61.7	73.7	77.1	79.7

1/ A volume-weighted average of the fresh and processing values.

During the period 1970/71 to 1978/79, the composite unit value for mushrooms generally trended upward, increasing by an average of 7.9 percent annually. The USDA index of prices received by growers for all other vegetables increased 7.8 percent annually over the same period. The composite index increased more rapidly than either of its two component indexes. This reflects the fact that over this period the relatively more expensive fresh mushrooms came to hold a larger share of the composite, that is, part of the 7.9-percent average annual price increase merely reflects a change in the composition of the index.

Unit values of mushrooms for fresh-market sales increased at an average annual rate of 7.2 percent from 1970/71 to 1978/79, compared with only 6.4 percent for mushrooms for processing. The USDA index of prices received by growers for all other vegetables directed exclusively to the fresh market (no such index is available solely for processing) increased at an average of 8.2 percent annually.

In 1978/79, when apparent consumption, imports, and domestic production of canned mushrooms were all less than in the previous marketing year, unit values of mushrooms for the fresh market increased by 5.3 percent, while unit values for mushrooms for processing decreased 1.7 percent from the previous season. The composite index rose 3.4 percent. In comparison, for the corresponding period, the USDA indexes of prices received by growers for all other vegetables increased 2.8 percent for sales to the fresh market, and by 5.5 percent for a composite of sales to both the fresh and the processing markets. The price performance for mushrooms for processing in 1978/79 was significantly below the long-run trend of processing mushroom prices and also below an index of all processing vegetables.

Price relationship between domestic and imported canned mushrooms

In the Commission's 1976 and 1977 investigations, prices were obtained from U.S. producers, U.S. importers, and canner-importers for 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 1973 through the third quarter of 1976. 1/ In the current investigation, the price series were extended through the first quarter of 1980 (except for the fourth quarter of 1976) (tables 21 and 22).

Prices of canned mushrooms rose irregularly from January 1973 through March 1980 in all product categories, with the largest increases occurring between 1973 and 1977. After 1977, prices in some categories continued to rise moderately while in others they declined. During most of the period of rapid price increases (1975 and 1976), the price of the U.S. product exceeded prices of imported canned mushrooms in all four product groups. This appears to have been true simply because U.S. prices began their sharp increases before import prices began theirs. As prices subsequently stabilized, the price gap generally disappeared. There was only one product category, slices and/or buttons in retail (4-ounce) cans, in which prices of U.S. products were almost consistently above prices of imported products throughout the entire period. Tables 21 and 22 and figures 1-4 compare the prices of the principal suppliers for each of the four product groups.

1/ The principal styles of canned mushroom packs 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 the 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 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 of high-volume food consumption. The principal retail size is the 4-ounce can. The principal institutional size is the No. 10 can. 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. Published data sources, which are roughly equivalent to the above four categories, indicate that, for the period 1977-79, stems and pieces in retail size and institutional size containers averaged 33 percent and 40 percent per year, respectively, of the total U.S. supply of canned mushrooms. In addition, whole, slices, and buttons in retail size and institutional size containers averaged 17 percent and 10 percent per year, respectively, of the total U.S. supply of canned mushrooms. Table 23 shows the imported and domestic shares of U.S. supply by these latter categories.

Prices of domestically canned mushrooms compared with those of other domestically canned foods

Figure 5 shows quarterly wholesale price indexes published by the U.S. Department of Labor for domestically canned mushrooms in 4-ounce cans, all processed vegetables and fruits, and all canned vegetables and juices. The data in figure 5 indicate that prices of canned mushrooms increased only slightly from 1970 to 1974, increased rapidly from the latter part of 1974 to 1977, and, despite a brief dip in late 1978, were fairly constant thereafter. In the first quarter of 1980, canned mushroom prices were rising but the index was still below the annual peak reached in 1977, as shown in the following table:

Indexes of U.S. wholesale prices for canned mushrooms 1/ and other selected categories, 1970-79 and January-March 1980

(1975=100.0)

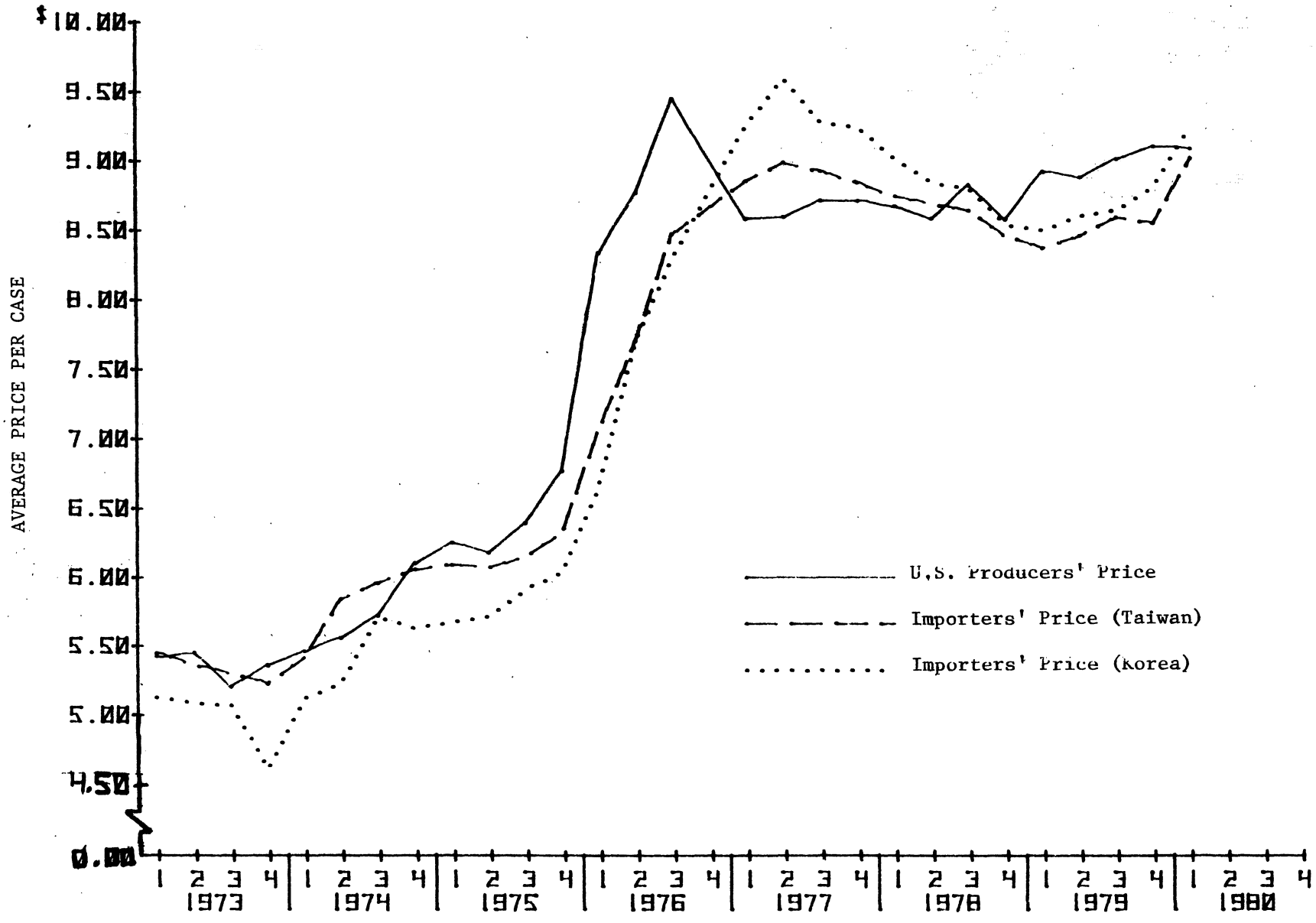
Period	All processed fruits and vegetables	Canned vegetables and juices	Canned mushrooms 1/
1970	65.1	64.4	86.0
1971	67.4	66.2	92.0
1972	70.5	67.9	92.5
1973	76.3	72.3	89.9
1974	91.0	87.2	92.7
1975	100.0	100.0	100.0
1976	100.2	100.4	124.4
1977	110.4	105.3	145.5
1978	119.3	109.6	145.2
1979	130.7	114.5	139.3
1980 (January-March)	131.4	114.5	143.0

1/ 4-ounce cans.

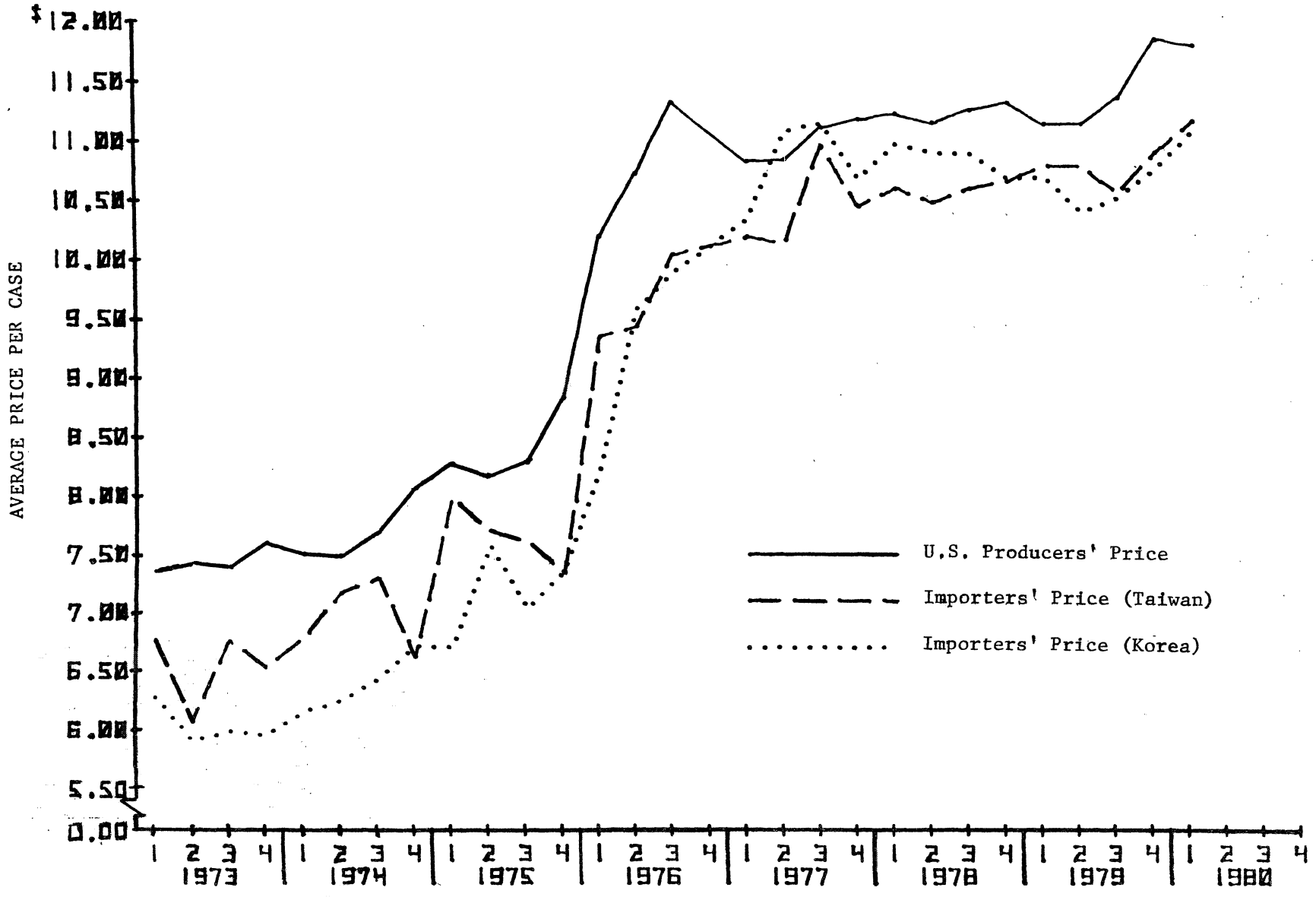
Source: Compiled from official statistics of the U.S. Department of Labor.

Figure 5 shows that from 1970 to 1975, the price index for canned mushrooms increased less rapidly than the broader indexes; after 1975, the mushroom index increased more rapidly. However, since the various price indexes display rapid increases at different times, comparisons of rates of price change are very sensitive to the time period analyzed. Whereas the prices of fruits, vegetables, and juices began rising rapidly in late 1973 and reached a plateau by the beginning of 1975, the rapid increase in mushroom prices did not begin until 1975. And whereas mushroom prices reached a plateau in 1977, the broader price indexes resumed their advance in 1976 and only in late 1979 or in 1980 gave any indication of leveling off. Thus, choosing a base year other than 1975 could give quite a different picture of the relative rates of price change.

Figure 1.--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 Taiwan and Korea, by quarters, 1973-79 and January-March 1980



...per case of 24/4-ounce cans of mushroom slices and/or buttons received by U.S. producers and by firms importing from Taiwan and Korea, by quarters, 1973-79 and January-March 1980



Source: Based on data in table 20.

Figure 3.--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 Taiwan, Korea, and Hong Kong, by quarters, 1973-79 and January-March 1980

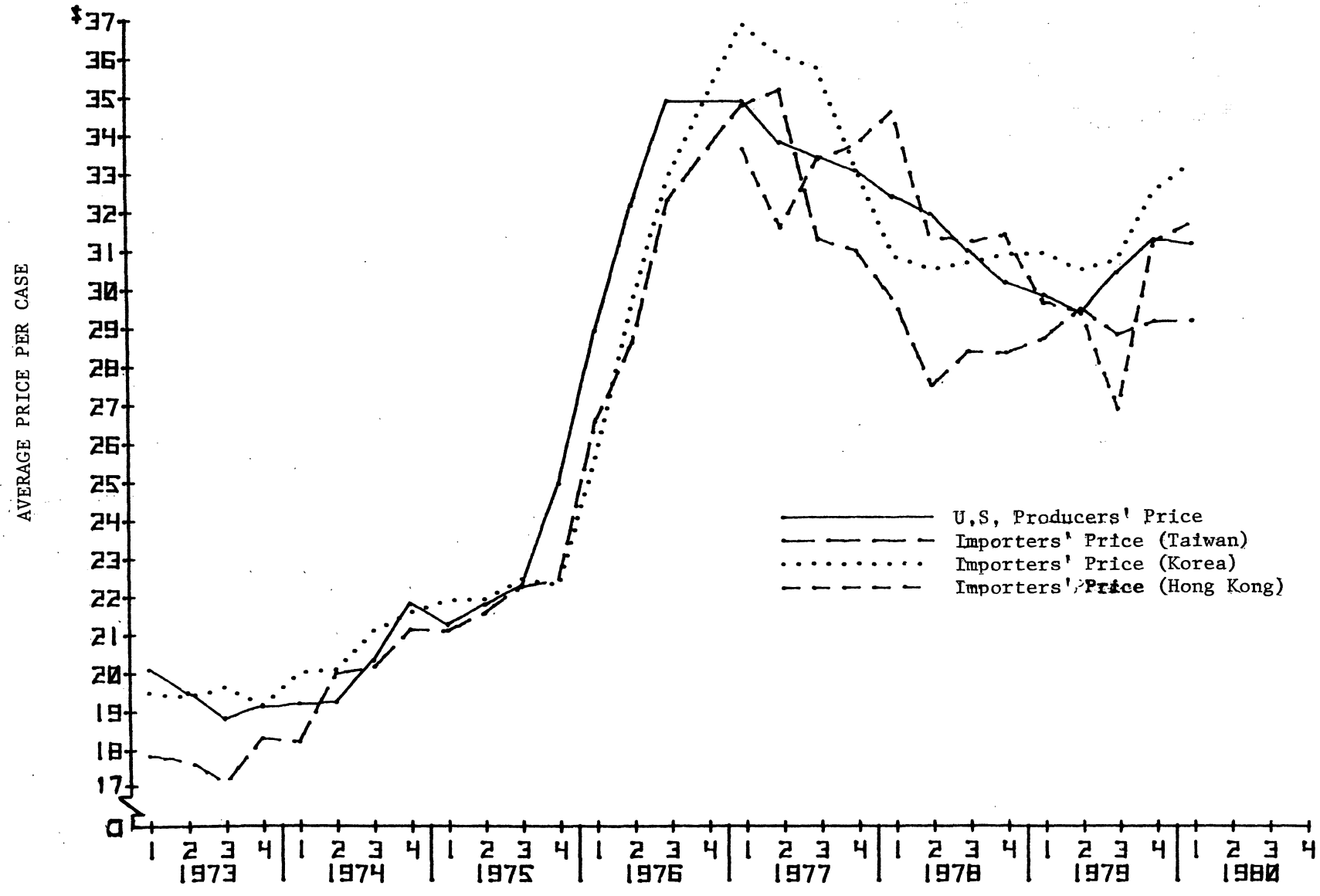
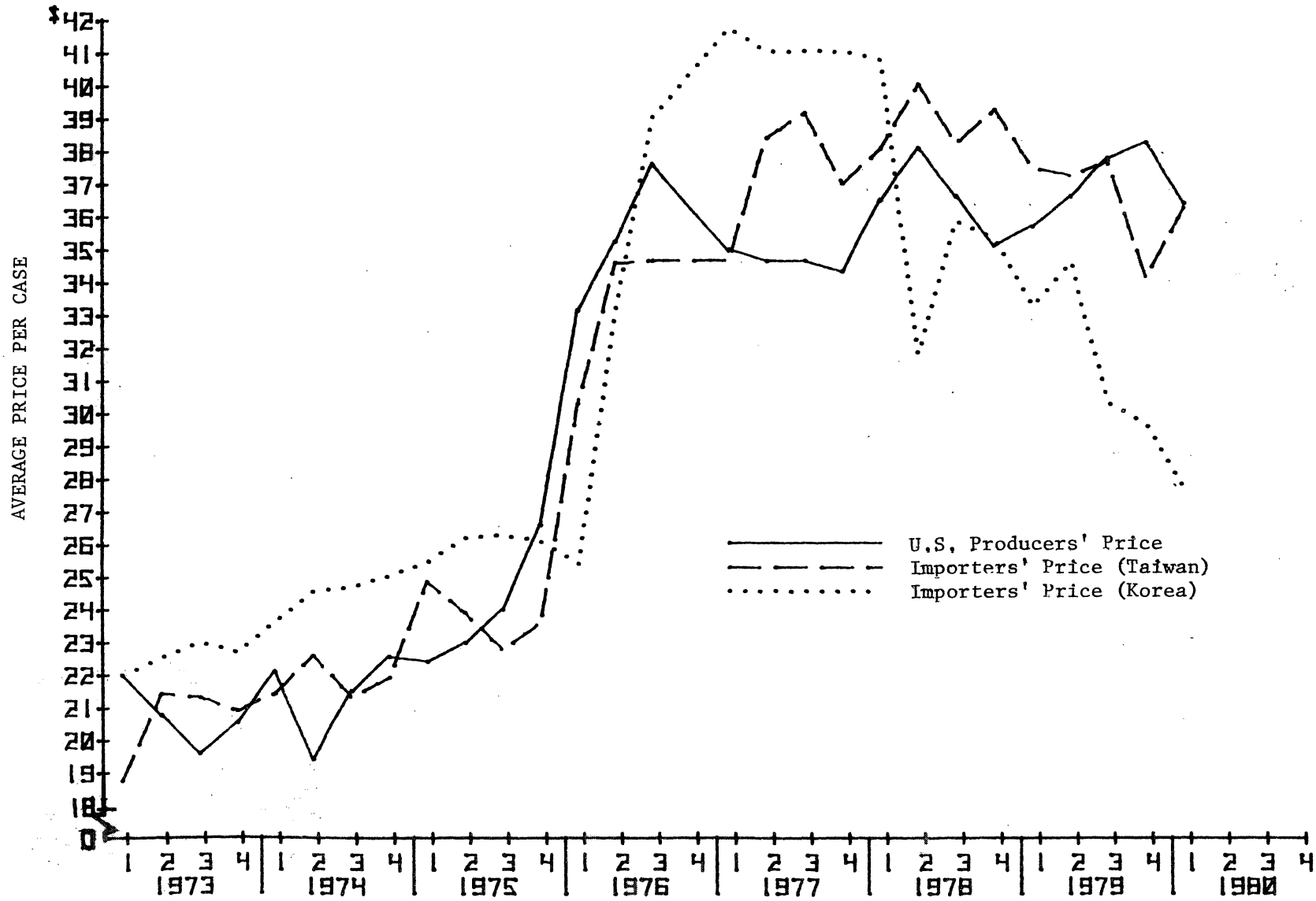
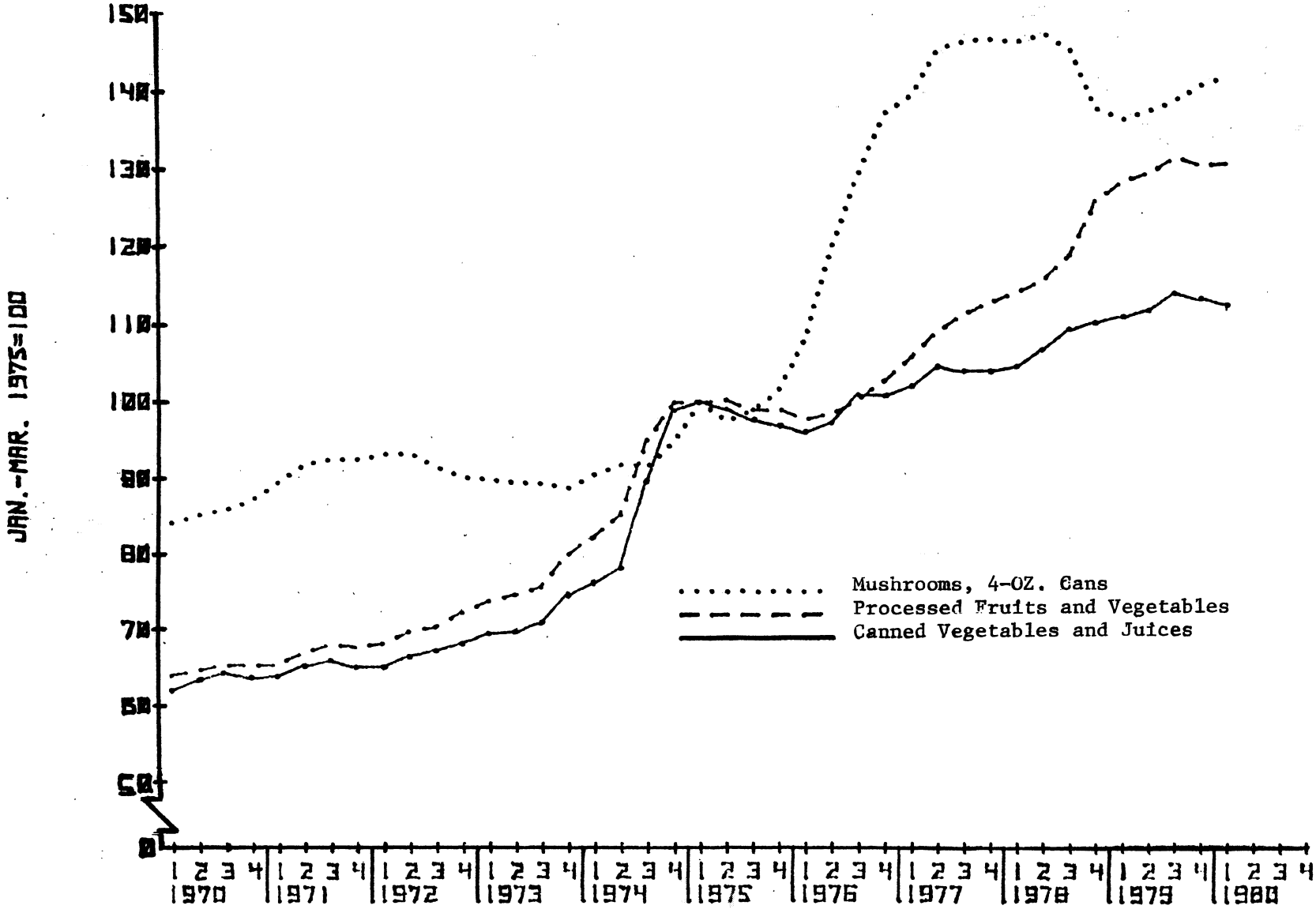


Figure 4.--Mushrooms, canned: Average prices per case of 6/No. 10 cans of mushroom slices and/or buttons received by U.S. producers and by firms importing from Taiwan and Korea, by quarters, 1973-79 and January-March 1980



Source: Based on data in table 21

Figure 5.--Indexes of U.S. wholesale prices for canned mushrooms and other selected categories, by quarters, 1970-79 and January-March 1980



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

APPENDIX A

COMMISSION'S NOTICE OF INVESTIGATION AND HEARING AS PUBLISHED IN THE FEDERAL REGISTER

[TA-201-43]

Mushrooms; Investigation and Hearing

Investigation instituted. Following receipt of a petition on March 14, 1980, filed on behalf of the American Mushroom Institute, a trade association of the U.S. mushroom canning industry, the United States International Trade Commission on March 24, 1980, instituted an investigation under section 201(b) of the Trade Act of 1974 to determine whether mushrooms, prepared or preserved (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.

Public hearing ordered. A public hearing in connection with this investigation will be held in the Commission's Hearing Room, U.S. International Trade Commission Building, 701 E Street, NW., Washington, D.C. 20436 beginning at 10:00 a.m., e.d.t. on Monday, June 9, 1980. Requests for appearances at the hearing should be received in writing by the Secretary of the Commission at his office in Washington, D.C. not later than noon, June 2, 1980.

Suggested prehearing procedures. To facilitate the hearing process, it is requested that persons wishing to appear at the hearing submit prehearing briefs enumerating and discussing the issues which they wish to raise at the hearing. Nineteen copies of such prehearing briefs should be submitted to the Secretary of the Commission no later than the close of business Friday, May 30, 1980. Copies of any prehearing briefs submitted will be made available for public inspection in the Office of the Secretary. While submission of prehearing briefs does not prohibit submission or prepared statements in accordance with section 201.12(d) of the Commission's *Rules of Practice and Procedure* (19 C.F.R. 201.12(d)), it would be unnecessay to submit such a statement if a prehearing brief is submitted instead. Any prepared statements submitted will be made a part of the transcript. Oral presentations, should, to the extent possible, be limited to issues raised in the prehearing briefs.

Prehearing conferences will be held on Friday, May 16, 1980, at 10:00 a.m. e.d.t. and Thursday, June 5, 1980, at 10:00 a.m. e.d.t. in Room 117 of the U.S. International Trade Commission Building.

Persons not represented by counsel or public officials who have relevant matters to present may give testimony without regard to the suggested prehearing procedures outlined above.

Inspection of petition. The petition filed in this case is available for public inspection at the Office of the Secretary, U.S. International Trade Commission and at the New York City Office of the U.S. International Trade Commission, located at 6 World Trade Center.

By order of the Commission.

Issued: March 25, 1980.

Kenneth R. Mason,

Secretary.

[FR Doc. 80-9909 Filed 4-1-80; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX B

STATISTICAL TABLES

Table 1.--Mushrooms, fresh, or dried, or otherwise prepared or preserved: U.S. MFN rates of duty, Jan. 1, 1970, to Jan. 1, 1987, as established through June 30, 1980

TSUS item No.	Description	MFN rate of duty	Effective date
	Mushrooms:		
144.10	Fresh	5¢ per lb + 25% ad val.	1/
144.12	Dried	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.
		2.9¢ per lb + 9.3% ad val.	January 1980.
		2.7¢ per lb + 8.5% ad val.	January 1981.
		2.4¢ per lb + 7.8% ad val.	January 1982.
		2.2¢ per lb + 7% ad val.	January 1983.
		2¢ per lb + 6.3% ad val.	January 1984.
		1.8¢ per lb + 5.5% ad val.	January 1985.
		1.5¢ per lb + 4.8% ad val.	January 1986.
		1.3¢ per lb + 4% ad val.	January 1987.
144.20	Otherwise prepared or preserved	3.2¢ per lb 2/ + 10% ad val.	3/

1/ This rate of duty became effective on January 1, 1948, and has not changed.

2/ On drained weight.

3/ This rate of duty became effective on July 1, 1963, and has not changed.

Table 2.--Mushrooms, canned: U.S. rates of duty, average ad valorem equivalents, and imports for consumption, marketing years 1969/70 to 1979/80

Marketing year beginning July 1--	Rate of duty	Average ad valorem equivalent	Imports	
			Quantity 1/	Value
	Cents per pound; 1/ per-cent ad valorem	Percent	1,000 pounds	1,000 dollars
1969/70	3.2¢ per lb. + 10%	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-------	14.2	50,179	37,561
1975/76	-------do-------	13.9	57,351	46,221
1976/77	-------do-------	13.2	69,432	70,431
1977/78	-------do-------	13.0	91,896	79,838
1978/79	-------do-------	13.1	86,207	88,142
1979/80	-------do-------	2/ 13.1	2/ 89,345	2/ 90,878

1/ Drained weight.
2/ For the period July 1, 1979, to Apr. 30, 1980.

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

Table 3.--Mushrooms: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a fresh-weight basis)

Period	Production	Exports 1/	Imports			Apparent consumption 3/	Ratio of--	
			Canned	Dried	Total 2/		Imports to consumption	Imports to production
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Percent	Percent
Marketing year beginning July 1--								
1970/71	207	1	43	10	53	259	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
1976/77	347	1	107	14	121	467	26	35
1977/78	399	1	141	13	154	552	28	39
1978/79	452	2	133	14	147	597	25	33
July-March--								
1978/79 4/	339	1	90	10	103	441	23	30
1979/80 4/	349	1	116	9	131	479	27	38

1/ Data on exports prior to July 1978 are compiled from official statistics of the Canadian Ministry of Industry, Trade and Commerce. Beginning with July 1978, export data are compiled from official statistics of the U.S. Department of Commerce and represent shipments to more than 25 countries.

2/ Includes small quantities of frozen mushrooms in some periods.

3/ Production plus imports minus exports.

4/ Estimated by the staff of the U.S. International Trade Commission.

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

Table 4.--Mushrooms: U.S. production for fresh-market sales, U.S. production of canned mushrooms, and imports of canned mushrooms, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a fresh-weight basis)

Period	Production			Imports, canned	Ratio of imports to production
	For fresh-market sales	Canned	Total		
	Million pounds	Million pounds	Million pounds	Million pounds	Percent
Marketing year beginning July 1—					
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
1976/77	151	156	307	107	35
1977/78	191	146	337	141	42
1978/79	228	139	367	133	36
July-March—					
1978/79	1/ 171	103	274	90	33
1979/80	1/ 183	106	289	116	40

1/ Estimated by the staff of the U.S. International Trade Commission.

Source: Production of mushrooms for fresh market sales supplied by the U.S. Department of Agriculture, except as noted; production of domestically canned mushrooms, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports, compiled from official statistics of the U.S. Department of Commerce.

Table 5.--Mushrooms: U.S. fresh-market sales, sales of domestically canned mushrooms, exports and imports of canned mushroms, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a fresh-weight basis)

Period	Sales		Exports, canned 1/	Imports, canned	Apparent consumption	Ratio of imports to consumption
	Sales of mushrooms to fresh market	Sales of domestically canned mushrooms				
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Percent
Marketing year beginning July 1—						
1970/71	58	115	0.1	43	216	20
1971/72	66	127	.2	62	255	24
1972/73	77	115	.3	74	266	28
1973/74	102	108	.6	70	279	25
1974/75	126	116	.2	77	319	24
1975/76	142	113	.4	88	343	26
1976/77	151	140	.4	107	398	27
1977/78	191	146	.4	141	478	29
1978/79	228	140	.4	133	501	27
July-March—						
1978/79	2/ 171	107	.7	90	367	25
1979/80	2/ 183	103	.4	116	402	29

1/ Data on exports prior to July 1978 are compiled from official statistics of the Canadian Ministry of Industry, Trade and Commerce. Beginning with July 1978, export data are compiled from official statistics of the U.S. Department of Commerce and represent shipments to more than 25 countries (exports to Canada were 16% of total exports during the 1978/79 period).

2/ Estimated by the staff of the U.S. International Trade Commission.

Source: Sales of mushrooms to the fresh market, compiled from official statistics of the U.S. Department of Agriculture, except as noted; sales of domestically canned mushrooms, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; exports and imports, compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 6.--Mushrooms, canned: Sales of U.S. product, U.S. imports for consumption, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a fresh-weight basis)

Period	Sales of U.S. product 1/	Imports	Apparent consumption 2/	Ratio of imports to consumption
	Million pounds			Percent
Marketing year beginning July 1--				
1970/71	115	43	158	27
1971/72	127	63	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
1976/77	140	107	247	43
1977/78	146	141	287	49
1978/79	140	133	273	49
July-March--				
1978/79	107	90	197	46
1979/80	103	116	219	53

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: Sales of U.S. product, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports, compiled from official statistics of the U.S. Department of Commerce.

Note.--Data on canned product converted to fresh-weight equivalent on the basis of pound of drained weight to 1.538 pounds of fresh-weight.

Table 7.--Mushrooms, canned: Sales of U.S. product, U.S. imports for consumption, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a drained-weight basis)

Period	Sales of U.S. product 1/	Imports	Apparent consumption 2/	Ratio of imports to consumption
	Million pounds			Percent
Marketing year beginning July 1--				
1970/71	75	28	103	
1971/72	83	40	123	
1972/73	75	48	123	
1973/74	70	46	116	
1974/75	75	50	125	
1975/76	73	57	130	
1976/77	91	69	160	
1977/78	95	92	187	
1978/79	91	86	177	
July-March--				
1978/79	70	59	129	
1979/80	67	75	142	

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

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

Source: Sales of U.S. product compiled from data supplied by domestic canners; imports compiled from official statistics of the U.S. Department of Commerce.

Table 8.--Mushrooms, canned: U.S. imports for consumption, by months, marketing years 1970/71 to 1979/80

(In thousands of pounds, drained-weight basis)

Month	Marketing year beginning July 1--									
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
July	1,439	2,586	5,252	4,110	2,944	6,025	11,939	4,649	6,758	12,662
August	2,119	1,525	5,423	4,234	2,815	5,035	10,477	7,207	8,871	9,275
September	1,907	2,738	4,063	3,679	4,869	4,714	5,505	9,000	7,703	8,183
October	1,440	1,705	3,074	4,908	3,868	3,726	2,046	6,536	4,788	7,752
November	1,068	1,039	2,467	4,491	3,582	2,584	1,883	4,930	3,781	7,700
December	784	1,831	3,182	3,616	4,069	3,133	3,361	7,460	7,173	5,902
January	773	1,724	3,568	4,233	5,768	4,903	4,711	7,429	7,361	6,669
February	2,574	1,958	2,400	2,684	2,936	3,405	5,010	6,290	5,430	8,794
March	3,573	5,443	4,243	2,251	4,312	5,351	7,549	8,956	8,580	10,025
April	4,388	5,860	4,403	4,994	4,945	2,841	5,837	9,270	6,324	12,383
May	3,869	8,005	5,296	3,613	5,363	5,243	5,933	10,381	8,003	12,815
June	4,163	5,660	4,846	2,703	4,709	10,391	5,183	9,787	11,434	1/
Total	28,097	40,072	48,217	45,515	50,179	57,351	69,432	91,896	86,207	

1/ Not available.

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

Note.--Because of rounding, figures may not add to the totals shown.

Table 9.--Mushrooms, canned: U.S. imports for consumption, by specified sources, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

Source	Marketing year beginning July 1--									July-March--	
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1978/79	1979/80
	Quantity (1,000 pounds, drained weight)										
Taiwan	24,260	28,169	30,115	30,382	34,227	36,050	42,984	57,218	42,128	28,906	42,468
Korea	717	7,444	12,643	10,307	11,090	18,009	22,212	23,656	27,002	18,191	18,892
Hong Kong	61	49	491	221	183	190	963	7,372	12,613	8,535	10,045
Costa Rica	79	399	344	775	399	186	0	877	1,233	925	185
Dominican Republic	0	0	166	795	685	661	184	96	828	709	176
Japan	966	789	1,447	1,254	1,709	1,227	1,400	1,277	497	273	449
France	940	1,652	1,264	554	531	419	703	455	209	186	155
Romania	7	0	3	0	0	0	106	144	110	65	91
China	0	50	183	248	106	30	107	44	50	26	1,297
All other	1,067	1,520	1,561	979	1,250	579	773	757	1,537	818	1,424
Total	28,097	40,072	48,217	45,515	50,179	57,351	69,432	91,896	86,207	58,634	75,182
	Value (1,000 dollars)										
Taiwan	15,293	18,318	19,513	20,387	26,444	30,211	43,526	62,566	46,231	33,017	46,022
Korea	497	5,139	7,978	6,250	7,286	13,167	22,120	23,718	26,033	17,728	18,835
Hong Kong	36	33	286	139	104	124	955	6,743	10,613	7,175	8,388
Costa Rica	55	295	267	601	347	144	-	1,137	1,782	1,346	240
Dominican Republic	-	-	95	457	396	415	149	89	667	582	144
Japan	699	642	998	784	1,184	919	1,427	1,338	490	286	469
France	922	1,416	1,182	579	667	590	1,120	891	417	350	335
Romania	9	-	4	-	-	-	89	132	108	64	89
China	-	35	84	116	53	15	79	43	48	26	1,052
All other	796	1,049	1,159	829	1,080	635	965	1,181	1,753	866	1,556
Total	18,308	26,927	31,566	30,141	37,561	46,221	70,431	97,838	88,142	61,440	77,131
	Unit value (per pound) 1/										
Taiwan	$0.63	$0.65	$0.65	$0.67	$0.77	$0.84	$1.01	$1.09	$1.10	$1.14	$1.08
Korea	.69	.69	.63	.61	.66	.73	1.00	1.00	.96	.98	1.00
Hong Kong	.59	.66	.58	.63	.57	.65	.99	.91	.84	.84	.84
Costa Rica	.70	.74	.77	.78	.87	.78	-	1.30	1.45	1.45	1.30
Dominican Republic	-	-	.57	.57	.58	.63	.81	.93	.81	.82	.82
Japan	.72	.81	.69	.62	.69	.75	1.02	1.05	.99	1.08	1.04
France	.98	.86	.94	1.04	1.25	1.45	1.59	1.96	2.00	1.88	2.17
Romania	1.26	-	1.36	-	-	-	.84	.92	.98	.99	.98
China	-	.72	.46	.47	.50	.51	73	98	97	1.01	.81
All other	.75	.69	.74	.85	.86	1.11	1.25	1.56	1.14	1.06	1.09
Average	.65	.67	.65	.66	.75	.81	1.01	1.06	1.03	1.05	1.03

1/ Calculated from the unrounded figures.

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

Table 10.--Mushrooms, canned: U.S. imports for consumption, by principal sources, 1970-79, January-March 1979, and January-March 1980

Source	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	January-March--	
											1979	1980
	Quantity (1,000 pounds, drained weight)											
Taiwan	21,893	24,667	36,404	31,070	30,040	35,035	40,225	48,949	51,577	50,853	7,318	12,678
Korea	313	2,660	9,946	14,010	7,771	13,995	23,132	18,764	25,667	28,540	8,157	7,308
Hong Kong	31	34	364	181	219	259	242	3,496	9,670	14,556	3,571	3,138
Costa Rica	4	230	395	513	801	149	90	283	1,285	727	234	0
Japan	782	972	1,236	1,101	1,281	1,709	1,707	1,069	932	626	84	132
Dominican Republic	0	0	29	417	899	689	325	144	496	569	287	13
France	747	990	1,931	926	520	341	742	364	427	197	85	65
Romania	9	3	0	0	0	0	55	51	144	201	64	0
China	0	12	126	201	202	60	111	41	17	265	23	1,079
All other	1,030	1,194	1,682	1,373	893	1,011	716	843	972	2,061	486	486
Total	24,808	30,763	52,111	49,792	42,626	53,248	67,344	74,005	91,187	98,606	20,310	24,900
	Value (1,000 dollars)											
Taiwan	12,684	16,027	23,809	20,050	22,018	28,242	35,907	52,790	58,004	53,693	8,396	14,266
Korea	199	1,851	6,779	8,502	4,931	9,349	19,511	19,927	25,172	27,108	7,743	7,685
Hong Kong	16	24	217	104	137	152	169	3,519	8,282	12,076	2,974	2,724
Costa Rica	2	166	300	398	647	125	71	322	1,820	1,018	341	-
Japan	548	720	915	751	864	1,125	1,482	1,158	972	622	99	150
Dominican Republic	0	0	17	239	522	414	212	130	407	459	243	12
France	680	952	1,644	921	630	444	1,077	662	865	429	160	133
Romania	11	4	-	-	-	-	46	43	132	197	64	-
China	-	11	62	96	86	40	73	44	19	198	21	897
All other	706	832	1,140	1,086	792	936	798	1,079	1,421	2,329	476	515
Total	14,846	20,587	34,883	32,147	30,627	40,825	59,346	79,675	97,095	98,219	20,517	26,383
	Unit value (per pound)											
Taiwan	$0.58	$0.65	$0.65	$0.65	$0.73	$0.81	$0.89	$1.08	$1.12	$1.06	$1.15	$1.13
Korea	.64	.70	.68	.61	.63	.67	.84	1.06	.98	.95	.95	1.05
Hong Kong	.51	.69	.60	.58	.63	.59	.70	1.01	.86	.83	.83	.87
Costa Rica	.50	.72	.76	.78	.81	.84	.79	1.14	1.42	1.40	1.45	-
Japan	.70	.74	.74	.68	.68	.66	.87	1.08	1.04	.99	1.17	1.14
Dominican Republic	0	0	.59	.57	.58	.60	.65	.90	.82	.81	.85	.92
France	.91	.96	.85	.99	1.21	1.30	1.45	1.82	2.03	2.17	1.88	2.04
Romania	1.15	1.36	-	-	-	-	.84	.85	.92	.98	.99	-
China	-	.93	.49	.48	.43	.66	.65	1.07	1.12	.75	.95	.83
All other	.69	.70	.68	.79	.89	.93	1.11	1.28	1.46	1.13	.98	1.06
Average	.60	.67	.67	.65	.72	.77	.88	1.08	1.06	1.00	1.01	1.06

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

Note.--Because of rounding, figures may not add to the totals shown.

Table 11.--Mushrooms, canned: Percentage distribution of U.S. imports, by container sizes, 1/ and by principal sources, marketing years 1974/75 to 1978/79

Item	Taiwan	Republic of Korea	Hong Kong	France	Japan	People's Republic of China	All other	Total
1974/75:								
Retail	50.3	39.4	0	5.5	14.9	29.2	52.4	46.3
Institutional	49.7	60.6	100.0	94.5	85.1	70.8	47.6	53.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1975/76:								
Retail	52.1	26.9	.6	2.0	22.3	54.3	15.4	42.2
Institutional	47.9	73.1	99.4	98.0	77.7	45.7	84.6	57.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1976/77:								
Retail	44.8	15.9	2.9	4.6	28.1	33.5	6.7	33.7
Institutional	55.2	84.1	97.1	95.4	71.9	66.5	93.3	66.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1977/78:								
Retail	50.6	17.1	2.7	2.5	16.3	36.0	13.1	37.2
Institutional	49.4	82.9	97.3	97.5	83.7	64.0	86.9	62.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978/79:								
Retail	55.7	28.2	5.6	5.5	20.7	0	13.5	38.4
Institutional	44.3	71.8	94.4	94.5	79.3	100.0	86.5	61.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Retail-size containers 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.

Table 12.--Mushrooms, dried: U.S. imports for consumption, by principal sources, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

Source	Marketing year beginning July 1--									July-March--	
	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1978/79	1979/80
	Quantity (1,000 pounds, dried weight)										
Japan	545	521	449	420	512	521	467	496	612	498	397
Taiwan	48	239	248	89	117	113	227	373	226	166	124
Chile	286	140	248	469	538	448	542	252	466	255	221
Korea	18	27	133	82	25	13	120	87	84	81	124
All other	145	52	73	114	39	63	66	64	41	33	38
Total	1,042	979	1,151	1,174	1,231	1,158	1,422	1,272	1,429	1,033	904
	Value (1,000 dollars)										
Japan	2,280	2,425	2,352	3,057	2,949	3,294	3,911	4,874	6,228	5,085	3,921
Taiwan	216	883	732	327	322	385	875	1,267	1,327	948	944
Chile	206	214	579	754	512	294	397	232	879	506	415
Korea	59	99	278	451	116	67	744	678	707	681	830
All other	411	269	323	334	226	343	457	520	580	451	574
Total	3,172	3,890	4,264	4,923	4,125	4,383	6,384	7,571	9,721	7,671	6,684
	Unit value (per pound)										
Japan	$4.19	$4.65	$5.23	$7.28	$5.76	$6.32	$8.37	$9.83	$10.17	$10.21	$9.88
Taiwan	4.48	3.69	2.96	3.70	2.74	3.42	3.86	3.40	5.88	5.71	7.61
Chile	.72	1.53	2.33	1.61	.95	.66	.73	.92	1.88	1.98	1.88
Korea	3.28	3.67	2.09	5.50	4.64	5.15	6.18	7.80	8.41	8.41	6.69
All other	2.83	5.17	4.42	2.93	5.79	5.44	6.92	8.12	14.15	13.67	15.11
Average	3.04	3.97	3.70	4.19	3.35	3.79	4.49	5.95	6.80	7.43	7.39

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

Note.--During the period 1970/71 to 1978/79, imports from China ranged from nil in 1970/71 to 15 thousand pounds, valued at 71 thousand dollars, in 1976/77, with a unit value of $5.43 per pound.

Table 13.--Mushrooms, fresh: U.S. imports for consumption, by principal sources, marketing years 1974/75 to 1978/79, July-March 1978/79, and July-March 1979/80

Source	Marketing year beginning July 1--					July-March--	
	1974/75	1975/76	1976/77	1977/78	1978/79	1978/79	1979/80
	Quantity (pounds)						
Canada	0	4,150	4,000	16,900	397,325	210,456	154,931
France	0	0	1,715	306	0	0	0
Japan	66	1,199	3,355	0	0	0	0
All other	0	692	2,790	0	15,687	4,702	6,017
Total	66	6,041	11,860	17,206	413,012	215,158	160,948
	Value						
Canada	-	$3,889	$2,900	$13,481	$272,463	$142,794	$116,467
France	-	-	2,369	1,510	-	-	-
Japan	$994	2,787	5,877	-	-	-	-
All other	-	3,106	1,324	-	10,983	4,902	5,202
Total	994	9,782	12,470	14,991	283,446	147,696	121,669
	Unit value (per pound)						
Canada	-	$0.94	$0.72	$0.80	$0.69	$0.68	$0.75
France	-	-	1.38	4.93	-	-	-
Japan	$15.06	2.99	1.75	-	-	-	-
All other	-	4.49	.47	-	.70	1.04	.86
Average	15.06	1.76	1.05	.87	.69	.69	.76

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

Table 14.--Mushrooms, canned: Sales of U.S. product, U.S. imports for consumption, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(Quantities are on a processed-weight basis)

Period	Sales of U.S. product 1/	Imports	Apparent consumption 2/	Ratio of imports to consumption
	Million pounds			Percent
Marketing year beginning July 1--				
1970/71	75	28	103	27
1971/72	83	40	123	33
1972/73	75	48	123	39
1973/74	70	46	116	39
1974/75	75	50	125	40
1975/76	73	57	130	44
1976/77	91	70	161	43
1977/78	95	92	187	49
1978/79	91	86	177	49
July-March--				
1978/79	70	60	130	46
1979/80	67	79	146	54

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: Sales of U.S. product, compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports, compiled from official statistics of the U.S. Department of Commerce.

Table 15.--Mushrooms, canned: U.S. canners' inventories of the domestically produced product, by container sizes, 1/ on June 30 of 1975-79, Mar. 31, 1979, and Mar. 31, 1980

(In millions of pounds, fresh-weight basis)

Item	June 30--					Mar. 31--	
	1975	1976	1977	1978	1979	1979	1980
Retail-size containers	18.1	13.7	25.0	23.7	24.2	20.9	23.9
Institutional-size containers	7.3	2.8	10.0	9.2	6.6	6.2	6.9
Total	25.4	16.5	35.0	32.9	30.8	27.1	30.8

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

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 16.--Mushrooms, fresh: U.S. production for fresh-market sales, exports, imports, and apparent consumption, marketing years 1970/71 to 1978/79, July-March 1978/79, and July-March 1979/80

(In thousands of pounds)

Period	Production 1/	Exports 2/	Imports 3/	Apparent consumption
Marketing year beginning July 1--				
1970/71	58,269	1,032	316	57,553
1971/72	66,323	626	354	66,051
1972/73	76,728	617	80	76,191
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
1976/77	151,247	608	12	150,651
1977/78	191,080	696	17	190,401
1978/79	228,314	1,132	413	227,595
July-March--				
1978/79	4/ 171,000	944	210	170,266
1979/80	4/ 183,000	1,033	161	182,128

1/ Sold through fresh-market outlets.

2/ Data on exports prior to July 1978 are compiled from official statistics of the Canadian Ministry of Industry, Trade and Commerce. Beginning with July 1978, export data are compiled from official statistics of the U.S. Department of Commerce and represent shipments to more than 25 countries (exports to Canada were 16% of total exports during the 1978/79 period).

3/ In mid-1974, the Court of Customs and Patent 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/ Estimated by the staff of the U.S. International Trade Commission.

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

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

Table 17.--Profit-and-loss experience of 18 U.S. producers of canned mushrooms, by types of operations, accounting years 1977-79 1/

Item	1977	1978	1979
	Operations on canned mushrooms		
Net sales----------1,000 dollars--	117,408	133,747	124,156
Cost of goods sold----------do----	105,368	119,661	111,103
Gross profit----------do----	12,040	14,086	13,053
General, selling, and administrative expenses 1,000 dollars--	8,085	10,673	11,392
Net operating profit----------do----	3,955	3,413	1,661
Ratio of net operating profit to net sales--			
For canned mushrooms----------percent--	3.4	2.6	1.3
For canned and dried fruits and vegetables 2/ do----	4.6	5.0	4.9
Number of firms reporting a net operating profit----	13	13	8
Number of firms reporting a net operating loss------	4	4	9
	All operations of reporting establishments		
Net sales----------1,000 dollars--	141,544	163,741	150,735
Cost of goods sold----------do----	126,709	146,705	134,504
Gross profit----------do----	14,835	17,036	16,231
General, selling, and administrative expenses 1,000 dollars--	9,984	12,519	13,265
Net operating profit----------do----	4,851	4,517	2,966
Ratio of net operating profit to net sales percent--	3.4	2.8	2.0
Number of firms reporting a net operating profit----	16	14	11
Number of firms reporting a net operating loss------	2	4	7

1/ The accounting year for 8 producers ended Dec. 31; the accounting year for each of the other 10 producers ended on Feb. 28 or Sep. 31, or between those dates.
2/ 1979 Annual Statement Studies published by Robert Morris Associates.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 18.—Fixed assets, net sales, and net operating profit of 17 U.S. producers of canned mushrooms, 1977-79

Items	1977	1978	1979
Fixed assets:			
Original cost----------1,000 dollars--	33,338	36,985	40,692
Book value----------do----	19,906	21,212	22,349
Estimated replacement cost 1/----------do----	20,060	23,635	26,456
Net sales----------do----	117,408	133,747	124,156
Net operating profit----------do----	3,955	3,413	1,661
Ratio of net operating profit to--			
Net sales----------percent--	3.4	2.6	1.3
Original cost of fixed assets----------do----	11.9	9.2	4.1
Book value of fixed assets----------do----	19.9	16.1	7.4
Estimated replacement cost of fixed assets percent--	19.7	14.4	6.3

1/ Estimated replacement cost was reported by only 10 firms out of the responding 17 firms, representing about 60 percent of total sales during 1979. Hence the amounts are understated. Usually estimated replacement costs are much higher than original cost owing to inflation.

Source: Compiled from data submitted by 17 U.S. producers of canned mushrooms in response to questionnaires of the U.S. International Trade Commission.

Table 19.--Profit-and-loss experience of 39 U.S. mushroom growers on their mushroom operations, accounting years 1976-79 1/

Item	1976	1977	1978	1979
Net sales----------1,000 dollars--	81,333	98,489	110,758	100,746
Expenses:				
Materials and growing supplies---do----	21,452	21,481	25,759	26,753
Labor, including contract labor--do----	20,993	25,502	29,535	27,757
Packing supplies and shipping----do----	7,359	7,028	7,696	6,200
Energy and utilities----------do----	3,932	4,741	5,639	6,071
Depreciation----------do----	4,476	5,080	6,285	6,759
Other----------do----	14,882	20,509	23,651	20,205
Total----------do----	73,094	84.341	98,565	93,745
Net profit (before officers' or partners' salaries and income taxes are paid)----------1,000 dollars--	8,239	14,148	12,193	7,001
Ratio of net profit (before officers' or partners' salaries and income taxes are paid) to net sales--------percent--	10.1	14.4	11.0	6.9

1/ The accounting year for 20 producers ended Dec. 31; the accounting year for each of the other 19 producers ended June 30 or Sept. 30, or between those dates.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 20.--Mushrooms for processing and for the fresh market: Prices 1/ received by growers for clean-cut mushrooms in the Kennett Square and Temple areas Pennsylvania, by reporting months, marketing years 1974/75 to 1979/80

(In cents per pound)

Month	1974/75				1975/76				1976/77			
	Fresh	Processing			Fresh	Processing			Fresh	Processing		
	No. 1	No. 1	No. 2	No. 3	No. 1	No. 1	No. 2	No. 3	No. 1	No. 1	No. 2	No. 3
December	45.0	41.5	34.5	30.0	55.5	53.4	46.2	37.9	72.5	68.8	58.4	55.6
January	43.6	36.6	31.0	26.6	57.1	54.9	43.8	40.6	69.6	65.8	59.9	54.3
February	42.0	35.0	30.0	25.0	61.1	58.6	51.6	42.9	69.0	65.3	57.8	52.9
March	42.0	36.4	31.5	25.0	62.8	59.5	54.1	44.6	69.0	65.5	56.9	54.0
April	43.1	36.5	31.1	25.8	64.5	62.6	56.8	48.0	69.0	65.6	57.5	54.0
May	43.0	38.0	31.3	26.3	66.6	63.8	56.1	49.3	69.0	65.5	57.5	54.0
Average	43.1	37.3	31.6	26.5	61.3	58.8	51.4	43.9	69.7	66.1	58.0	54.1

Month	1977/78				1978/79				1979/80			
	Fresh	Processing			Fresh	Processing			Fresh	Processing		
	No. 1	No. 1	No. 2	No. 3	No. 1	No. 1	No. 2	No. 3	No. 1	No. 1	No. 2	No. 3
December	69.4	63.9	58.4	53.0	66.0	64.0	50.0	40.0	67.0	62.6	53.5	45.0
January	70.0	66.0	59.0	54.0	66.5	64.0	50.0	40.0	67.5	62.8	53.5	45.5
February	72.5	67.0	59.0	54.0	70.0	64.0	50.0	40.0	67.5	63.9	53.5	46.0
March	72.5	68.2	59.0	54.2	70.0	64.0	54.1	44.9	64.9	58.6	50.5	44.0
April	72.5	68.5	59.0	54.8	70.0	64.1	55.0	47.0	67.7	51.3	43.8	40.2
May	72.5	68.5	59.0	55.0	70.8	64.9	55.0	47.0	66.5	53.6	43.8	40.0
Average	71.6	67.0	58.9	54.2	68.9	64.2	52.4	43.2	66.9	58.8	49.8	43.5

1/ F.O.B. grower's shipping point; they do not include precooling, handling, transportation, containers, or brokerage expenses.

Source: Pennsylvania Department of Agriculture, Mushroom Market News.

Note.--From 1974/75 to 1978/79, the Pennsylvania Department of Agriculture reported a full month of weekly prices only for the months shown. In calendar year 1979, it began reporting weekly prices for all months of the year. However, in the interests of comparability, only the months previously reported were included for 1978/79 and 1979/80. In addition, the Pennsylvania Department of Agriculture reported combined Kennett Square and Temple area prices only through March 1975; thereafter it reported prices for these areas separately. In order to maintain continuity, the Commission staff averaged prices reported separately for these areas after March 1975.

Table 21.--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 Taiwan and Korea, by quarters, 1973-79 and January-March 1980

Period	Stems and pieces from--			Slices and/or buttons from--		
	United States	Taiwan	Korea	United States	Taiwan	Korea
1973:						
January-March	5.42	5.45	5.13	7.35	6.76	6.28
April-June	5.45	5.36	5.09	7.42	6.07	5.90
July-September	5.21	5.30	5.07	7.39	6.75	5.98
October-December	5.36	5.23	4.61	7.59	6.53	5.95
1974:						
January-March	5.46	5.41	5.12	7.50	6.77	6.15
April-June	5.56	5.84	5.23	7.48	7.16	6.24
July-September	5.72	5.96	5.71	7.68	7.29	6.43
October-December	6.10	6.06	5.63	8.06	7.62	6.71
1975:						
January-March	6.25	6.09	5.67	8.27	7.98	6.70
April-June	6.18	6.07	5.71	8.17	7.70	7.57
July-September	6.39	6.15	5.91	8.28	7.61	7.03
October-December	6.77	6.32	6.04	8.83	7.34	7.36
1976: 1/						
January-March	8.33	7.06	6.65	10.19	9.35	8.25
April-June	8.76	7.70	7.71	10.72	9.43	9.58
July-September	9.44	8.47	8.30	11.32	10.04	9.89
1977:						
January-March	8.58	8.85	9.25	10.83	10.19	10.34
April-June	8.59	8.98	9.59	10.84	10.14	11.08
July-September	8.71	8.92	9.27	11.11	10.96	11.15
October-December	8.71	8.84	9.24	11.18	10.45	10.68
1978:						
January-March	8.67	8.74	9.01	11.23	10.60	10.97
April-June	8.58	8.69	8.84	11.15	10.48	10.90
July-September	8.82	8.64	8.80	11.26	10.60	10.89
October-December	8.58	8.46	8.54	11.32	10.66	10.68
1979:						
January-March	8.92	8.37	8.50	11.14	10.79	10.69
April-June	8.88	8.46	8.60	11.14	10.78	10.39
July-September	9.01	8.59	8.64	11.36	10.56	10.52
October-December	9.10	8.55	8.81	11.85	10.90	10.76
1980:						
January-March	9.09	9.02	9.25	11.80	11.16	11.08

1/ Since data for October-December of 1976 represented October prices only, that quarter was excluded from the series.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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

Table 22.--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 Taiwan and Korea, by quarters, 1973-79 and January-March 1980

Period	Stems and pieces from--				Slices and/or buttons from--		
	United States	Taiwan	Korea	Hong Kong	United States	Taiwan	Korea
1973:							
January-March	20.09	17.83	19.49	2/	21.98	18.77	22.00
April-June	19.50	17.69	19.37	2/	20.78	21.42	22.52
July-September	18.81	17.11	19.62	2/	19.59	21.29	23.00
October-December	19.10	18.27	19.13	2/	20.51	20.88	22.67
1974:							
January-March	19.16	18.17	19.97	2/	22.06	21.41	23.59
April-June	19.21	19.95	20.04	2/	19.41	22.56	24.52
July-September	20.27	20.07	21.05	2/	21.47	21.30	24.66
October-December	21.77	21.09	21.54	2/	22.52	21.88	25.01
1975:							
January-March	21.23	21.06	21.87	2/	22.39	24.83	25.44
April-June	21.74	21.52	21.89	2/	22.94	23.88	26.16
July-September	22.24	21.22	22.42	2/	23.96	22.74	26.27
October-December	24.91	22.39	22.26	2/	26.57	23.57	26.08
1976: 3/							
January-March	28.87	26.52	25.64	2/	33.10	30.27	25.39
April-June	32.12	28.57	29.63	2/	35.20	34.55	33.12
July-September	34.83	32.26	32.86	2/	37.55	34.22	39.00
1977:							
January-March	34.83	34.71	36.83	33.57	34.94	34.64	41.72
April-June	33.75	35.11	36.02	31.53	34.61	38.37	41.00
July-September	33.36	31.22	35.68	33.531	34.60	39.13	41.00
October-December	33.01	30.92	33.12	33.65	34.28	36.96	41.00
1978:							
January-March	32.33	29.65	30.78	34.53	36.45	38.03	40.75
April-June	31.88	27.42	30.43	31.30	38.03	39.99	31.76
July-September	30.93	28.29	30.60	31.14	36.58	38.18	35.83
October-December	30.09	28.25	30.82	31.33	35.07	39.21	35.27
1979:							
January-March	29.75	28.62	30.84	29.55	35.64	37.43	33.21
April-June	29.29	29.39	30.40	29.30	36.54	37.17	34.55
July-September	30.32	28.72	30.65	26.79	37.72	37.61	30.26
October-December	31.17	29.04	32.44	31.15	38.19	34.08	29.59
1980:							
January-March	31.06	29.05	33.16	31.59	36.34	36.20	27.56

1/ A No. 10 can holds 68 ounces of mushrooms.
2/ Not available.
3/ Since data for October-December of 1976 represented October prices only, that quarter was excluded from the series.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 23.--Distribution of total U.S. supply of canned mushrooms by container types and styles of pack, for calendar years, 1977-79 1/

(Quantities, thousands of pounds drained weight basis)

Year and item	Retail containers		Institutional containers		Total retail and institutional
	Stems and pieces	Slices, buttons, and/or whole	Stems and pieces	Slices, buttons, and/or whole	
1977:					
Total U.S. supply 1,000 pounds	57,970	30,661	67,513	19,055	174,19
Imports----------percent	24	46	56	44	4
U.S. production--------percent	76	54	44	56	5
1978:					
Total U.S. supply 1,000 pounds	57,386	32,000	70,685	21,594	181,66
Imports----------percent	26	52	62	59	4
U.S. production--------percent	74	48	38	41	5
1979:					
Total U.S. supply 1,000 pounds	64,065	28,653	73,274	13,047	179,03
Imports----------percent	32	58	66	50	5
U.S. production--------percent	68	42	34	50	4
1977-79 Average:					
Total U.S. supply 1,000 pounds	59,473	30,438	70,490	17,898	178,29
Imports----------percent	28	52	62	52	4
U.S. production--------percent	72	48	38	48	5

1/ The four categories shown in this table differ in two respects from the four categories used in the price section to compare domestic and imported prices of canned mushrooms. First the retail containers category includes any containers less than 9 ounces, of which the 4 ounce can predominates. Secondly, whole mushrooms are included with slices and buttons while the slices and buttons category in the price section excludes this style, the absence of which is not thought to significantly alter the relative rankings of the various categories.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from official statistics of the U.S. Department of Commerce.

Note.--Although this table reflects the sum of U.S. production and imports of canned mushrooms, such figures are a close approximation to apparent consumption since U.S. exports of canned mushrooms are insignificant.

APPENDIX C

LETTER FROM THE AMBASSADOR OF THE REPUBLIC OF CHINA TO THE OFFICE OF THE SPECIAL REPRESENTATIVE FOR TRADE NEGOTIATIONS, DATED NOVEMBER 16, 1978, AND A MEMORANDUM OF CONVERSATION BETWEEN REPRESENTATIVES OF THE EMBASSY OF THE REPUBLIC OF KOREA AND THE OFFICE OF THE SPECIAL REPRESENTATIVE FOR TRADE NEGOTIATIONS, DATED FEBRUARY 28, 1977

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APPENDIX D

LETTER FROM THE COMMISSIONER OF CUSTOMS TO THE OFFICE OF THE SPECIAL REPRESENTATIVE FOR TRADE NEGOTIATIONS, DATED MARCH 29, 1979, AND A LETTER FROM THE SUPERVISORY IMPORT SPECIALIST TO THE CUSTOMS INFORMATION EXCHANGE CONCERNING CANNED "MIXED MUSHROOMS" RELABELED FOR QUOTA CIRCUMVENTION FROM TAIWAN

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APPENDIX E

LIST OF WITNESSES APPEARING AT THE COMMISSION'S HEARING

TENTATIVE CALENDAR OF PUBLIC HEARING

Those listed below are scheduled to appear as witnesses at the United States International Trade Commission's hearing on:

Subject : Mushrooms

Inv. No. : TA-201-43

Date and time : June 9, 1980 - 10:00 a.m., e.d.t.

Sessions will be held in the Hearing Room of the United States International Trade Commission, 701 E Street, N.W., in Washington.

Congressional appearances:

Honorable Richard S. Schweiker, United States Senator, State of Pennsylvania

Honorable William Roth, United States Senator, State of Delaware

Honorable John Heinz, United States Senator, State of Pennsylvania

Honorable Richard T. Schulze, United States Congressman, State of Pennsylvania

Honorable Thomas B. Evans, Jr., United States Congressman, State of Delaware

State official:

Honorable Penrose Hallowell, Secretary of Agriculture, State of Pennsylvania, on behalf of the Honorable Richard L. Thornburgh, Governor, State of Pennsylvania

County official:

Honorable Earl M. Baker, Chairman, Board of Commissioners, Chester County, Pennsylvania

In support of the petition:

Pope Ballard and Loos--Counsel
Washington, D.C.
on behalf of

American Mushroom Institute

Joseph Tercha, Jr., Vice President, Oxford Royal Mushroom Products, Inc., Kelton, Pennsylvania

Thomas DiCecco, President/General Manager, The Oxford Corporation, Oxford, Pennsylvania

Harry Roberts, RKR Mushrooms Farms, Inc., Avondale, Pennsylvania

Lewe B. Martin)
Thomas A. Rothwell, Jr.)--OF COUNSEL
Joseph A. Vicario, Jr.)

National Farmers Union, Washington, D.C.

Robert J. Mullins, Assistant Director, Legislative Services

Leonard Zemaitis, Administrative Assistant, Pennsylvania Farmers Union, Harrisburg, Pennsylvania

Pennsylvania Food Processors Association, Harrisburg, Pennsylvania

Rocco V. Pugliese, Executive Director
Nick Mastrippolito, Jr.

Wessel and Carpel--Counsel
Philadelphia, Pennsylvania
on behalf of

Vincent Losito & Sons, Toughkenamon, Pennsylvania

Samuel J. Losito, Secretary

John A. Wetzel--OF COUNSEL

In opposition to the petition:

Bregman, Abell, Solter and Kay--Counsel
Washington, D.C.
on behalf of

Taiwan Mushroom Packers United Export Corporation

S. G. Koo, Taiwan Mailing Canned Goods Factory Co., Ltd.

Myron Solter)
David Simon)--OF COUNSEL

Green Giant Company--Counsel
(a subsidiary of The Pillsbury Company)
on behalf of

Edward L. Hable, Green Giant Company Vice President

Mahlon C. Schneider--OF COUNSEL

Hogan Associates
San Francisco, California

John F. Hogan, Jr., President

Kirkwood, Kaplan, Russin & Vecchi--Counsel
Washington, D.C.
on behalf of

Korea Canned Goods Export Association

K. W. Shin, President, Korea Canned Goods Export Association

Joo Han Kim, Representative of the National Agriculture Cooperative Federation, Korea

Richard Sullivan, Association of Food Distributors

Julius Kaplan)
Kathleen F. Patterson)--OF COUNSEL