UNITED STATES TARIFF COMMISSION

SUMMARIES OF TRADE AND TARIFF INFORMATION

Prepared in Terms of the Tariff Schedules of the United States (TSUS)

Schedule 1

Animal and Vegetable Products
(In 14 volumes)

VOLUME 14

EDIBLE PREPARATIONS, NATURAL RESINS, AND MISCELLANEOUS ARTICLES OF VEGETABLE ORIGIN

TC Publication 308
Washington, D. C.
1969

SUMMARIES OF TRADE AND TARIFF INFORMATION BY SCHEDULES

Schedule 1 - Animal and Vegetable Products
(In 14 volumes)
Schedule 2 - Wood and Paper; Printed Matter
(In 5 volumes)
Schedule 3 - Textile Fibers and Textile Products
(In 6 volumes)
Schedule 4 - Chemicals and Related Products
(In 12 volumes)
Schedule 5 - Nonmetallic Minerals and Products
(In 5 volumes)
Schedule 6 - Metals and Metal Products
(In 11 volumes)
Schedule 7 - Specified Products; Miscellaneous and Nonenumerated Products
(In 8 volumes)
Schedule 8 - Special Classification Provisions
(In 1 volume)

Schedule 1 Volumes

1 - Animals and Meats
2 - Fish, Fresh, Chilled, Frozen, or Cured
3 - Fish Products, Shellfish, and Shellfish Products
4 - Dairy Products and Birds' Eggs
5 - Live Plants and Seeds
6 - Cereal Grains, Malts, Starches, and Animal Feeds
7 - Vegetables and Edible Nuts
8 - Edible Fruits and Fruit Products
9 - Sugar, Cocoa, Confectionery, Coffee, Tea, and Spices
10 - Beverages
11 - Tobacco and Tobacco Products
12 - Animal and Vegetable Oils
13 - Hides, Skins, Leather, Feathers, and Miscellaneous Articles of Animal Origin
14 - Edible Preparations, Natural Resins, and Miscellaneous Articles of Vegetable Origin

FOREWORD

In an address delivered in Boston on May 18, 1917, Frank W. Taussig, distinguished first chairman of the Tariff Commission, delineated the responsibility of the newly established Commission to operate as a source of objective, factual information on tariffs and trade. He stated that the Commission was already preparing a catalog of tariff information--

> designed to have on hand, in compact and simple form, all available data on the growth, development and location of industries affected by the tariff, on the extent of domestic production, on the extent of imports, on the conditions of competition between domestic and foreign products.

The first such report was issued in 1920. Subsequently three series of summaries of tariff information on commodities were published--in 1921, 1929, and 1948-50. The current series, entitled Summaries of Trade and Tariff Information, presents the information in terms of the tariff items provided for in the eight tariff schedules of the Tariff Schedules of the United States (abbreviated to TSUS in these volumes), which on August 31, 1963, replaced the 16 schedules of the Tariff Act of 1930.

Through its professional staff of commodity specialists, economists, lawyers, statisticians, and accountants, the Commission follows the movement of thousands of articles in international commodity trade, and during the years of its existence, has built up a reservoir of knowledge and understanding, not only with respect to imports but also regarding products and their uses, techniques of manufacturing and processing, commercial practices, and markets. Accordingly, the Commission believes that, when completed, the current series of summaries will be the most comprehensive publication of its kind and will present benchmark information that will serve many interests. This project, although encyclopedic, attempts to conform with Chairman Taussig's admonition to be "exhaustive in inquiry, and at the same time brief and discriminating in statement."

This series is being published in 62 volumes of summaries, each volume to be issued as soon as completed. Although the order of publication may not follow the numerical sequence of the items in the TSUS, all items are to be covered. As far as practicable, each volume reflects the most recent developments affecting U.S. foreign trade in the commodities included.

SUMMARIES OF TRADE AND TARIFF INFORMATION

SCHEDULE 1

Volume 14

C O N T E N T S

Numerical List of TSUS Items in This Volume

Included in this volume (identified as volume 1:14) are subparts B, E, and G of part 15 of schedule 1 of the Tariff Schedules of the United States.

Subpart B of part 15 (part 15B) covers all preparations fit for human consumption and not specifically provided for elsewhere in schedule 1 of the tariff schedules. For most of the edible preparations, domestic production supplies the bulk of the consumption with imports consisting mainly of specialty products. Annual data on the production of the edible preparations are not available, but it is known that production is many times larger than the imports, which amounted to about $46 million in 1968. Nearly half of the imports in 1968 consisted of bakery products. Exports of the edible preparations in 1968 are estimated to have been about equal in value to the imports.

The items provided for in part 15E consist primarily of natural, as opposed to synthetic, gums and resins. They are all derived from plants, except lac which is from an insect. They are used in surface coatings, paper and textile sizing, pharmaceuticals, chewing gum, and a wide variety of food and industrial applications. Most of the products are free of duty. There is little or no domestic production of most items. Imports totaled about $30 million in 1968; domestic production of about $120 million and exports of $37 million in that year consisted principally of turpentine and rosin.

Part 15G provides for miscellaneous vegetable products not covered elsewhere in the tariff schedules. Data on production are not available for most of the products. In 1968 the value of U.S. imports amounted to about $50 million; U.S. exports in that year were small and consisted principally of hops.

Appendix A to this volume reproduces pertinent segments of the Tariff Schedules of the United States Annotated (TSUSA-1969) relating to the items covered by this volume. It includes the general headnotes to the TSUS and parts 15B, 15E, and 15G of schedule 1. Appendix A also gives the rates of duty applicable to the individual TSUS items, including the staged annual rate modifications that resulted from concessions granted by the United States in the sixth (Kennedy) round of trade negotiations under the General Agreement on Tariffs and Trade. Notes in the appendix also document changes in the legal text of the tariff schedules and in the statistical annotations of items after these schedules went into effect on August 31, 1963.

Appendix B to this volume provides data on the value of the U.S. imports in 1968 by TSUS items included in the individual summaries of this volume. Appendix B also shows the percentage changes in imports from 1967 and the three principal countries which supplied imports in 1968.

Commodity	TSUS item
Antipasto----------	182.05

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Imports, which averaged $196,000 annually in 1963-68, supply most of the commercially packed antipasto consumed in the United States. Exports have been negligible or nil.

Comment

The prepared product known in domestic and international trade as antipasto is an appetizer or hors d'oeuvre. It is composed of a variety of ingredients, including fish (mostly tuna or sardines or both), vegetables, olives, and condiments and is packed in oil and/or sauces in airtight containers usually of glass or tin plate. The antipasto of commerce is a gourmet item having a limited market inasmuch as its consumption as a food product is confined largely to parties and similar festive occasions. Homemade and restaurant-made antipasto, not being bought and sold in the usual commercial channels, are not within the scope of this summary.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.05	Antipasto----------	10% ad val.	8% ad val.	5% ad val.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). The

rate in effect prior to January 1, 1968 (10 percent ad valorem) became effective July 1, 1963, and also reflected a concession granted by the United States in the GATT. Under the former tariff schedules, antipasto valued not over 9¢ cents per pound, and that valued over 9¢ cents per pound were dutiable at separate rates, but since there was no trade in the lower value category a single rate was provided in the TSUS.

Antipasto is packed commercially by a limited number of concerns in the United States. Data on U.S. production of such antipasto are not available but the output is believed to be small compared to imports. Imports, which came mostly from Italy, averaged about 230,000 pounds annually in the years 1963-68 and their annual value averaged $196,000 (see table). Exports of antipasto are believed to be negligible or nil.

Antipasto: U.S. imports for consumption, by country, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (pounds)					
Italy	212,245	199,226	173,376	208,266	199,927	232,707
Spain	4,020	6,598	10,865	39,963	14,134	34,592
Yugoslavia	7,188	3,593	14,750	7,451	6,562	-
Other	363	1/ 3,519	338	1,584	-	661
Total	223,816	1/ 212,936	199,329	257,264	220,623	267,960
	Value (dollars)					
Italy	206,324	192,177	158,901	184,269	177,509	186,490
Spain	2,155	2,698	5,149	14,354	7,833	19,621
Yugoslavia	1,844	921	3,809	2,743	2,398	-
Other	380	1/ 3,096	340	837	-	475
Total	210,703	1/ 198,892	168,199	202,203	187,740	206,586
	Unit value (cents per pound)					
Italy	97.2	96.5	91.6	88.5	88.8	80.1
Spain	36.1	40.9	47.4	35.9	55.4	56.7
Yugoslavia	25.7	25.6	25.8	36.8	36.5	-
Other	104.7	1/ 88.0	100.6	52.8	-	71.9
Average	94.1	1/ 93.4	84.4	78.6	85.1	77.1

1/ Total does not include a 34,840 pound entry valued at $4,007 from Canada that was misclassified.

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

Commodity	TSUS item
Balls, hash, pastes, and similar forms:	
Corned beef hash	182.10
Other	182.11

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. consumption of hash, principally beef hash, has been supplied almost entirely by domestic production; U.S. imports have been negligible.

Comment

This summary includes a group of miscellaneous food products for human consumption including food pastes, balls, hash, puddings, and similar forms, composed of vegetables, or of vegetables, meat, fish (including shellfish), or any combination thereof. Thus, the products here are in chief value of vegetables, of vegetables and meat or fish, or of vegetables, meat, and fish. In judicial and administrative determinations, it has been held that the quantity of vegetables, meat, or fish necessary for the imported product to be classified under the language of the two provisions here is a "substantial" quantity. Many of the articles under consideration here consist of specialty items principally for food connoisseurs and foreign-born persons, with some of the articles being dishes for persons of Asiatic ancestry.

The balls included in this summary are usually ball-shaped mixtures of ground meat, vegetables, and spices. So-called meat balls or patties are included here if they contain a substantial quantity of vegetables; however, the bulk of the domestic production probably does not contain such a quantity of vegetables and is considered to be a meat product. Hash and pastes differ principally in the size of the ingredient particles, with the pastes being finely ground and hash consisting of more coarsely ground or cut particles. At the present time, the term pudding is not ordinarily used to apply to products made of vegetables or vegetables and meat and/or fish; previously, the term was apparently used to apply to products such as a sausage-like product made of a piece of intestine stuffed with seasoned chopped meat and boiled. The products considered here are usually in the canned or frozen form, but such products in a fresh or cooked form are also included here.

Corned beef hash is the most important product herein considered (from the standpoint of domestic production and consumption). Under Federal meat inspection regulations of the U.S. Department of Agriculture (Sec. 328.2, Consumer and Marketing Service, Service and Regulatory Announcement 188), both domestic and imported corned beef hash must contain a minimum of 35 percent meat (the other ingredients consist mostly of potatoes, with some onion and seasonings). The imported corned beef hash is similar to the domestic product in both type and quality. U.S. imports of roast beef hash (included in item 182.11) have been negligible. Imports of the other articles usually differ in ingredients and flavoring from domestic products and are not generally considered to be competitive with domestic articles.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Balls, hash, pastes, and similar forms:			
182.10	Corned beef hash	20% ad val.	16% ad val.	10% ad val.
182.11	Other	17% ad val.	1/	1/

1/ Rate not affected by the trade conference.

The tabulation above shows the column 1 rates of duty in effect from August 31, 1963 (the effective date of the TSUS) to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

In the period 1963-68, U.S. production and consumption of canned corned beef hash averaged about 78 million pounds annually; the output of beef hash (other than corned beef) is sizable, but considerably smaller than that of corned beef hash. The production and consumption of the products other than beef hash appear to be small. In 1963 about 45 concerns produced beef hash; 12 of these produced nearly

three-fourths of the total output. Generally, domestic producers manufacture a variety of meat products in addition to hash.

U.S. exports have been negligible relative to domestic output; data on annual exports are not separately reported. U.S. imports of beef hash have been insignificant because canned beef (item 107.50) is dutiable at a lower rate than hash. In recent years, imported canned corned beef has been used in substantial quantities to produce corned beef hash in the United States; in 1968 about three-fourths of the corned beef hash produced in the United States was made from imported corned beef. During 1961-66 imports of corned beef hash were negligible; in 1967 and 1968 the imports of corned beef hash were valued at $75,000 and $130,000, respectively. Inasmuch as Argentina, Brazil, Paraguay, and Uruguay have supplied the bulk of the imports of canned beef in recent years, these countries are the potential large foreign sources of beef hash. In the period 1963-68, the value of U.S. imports of the specialty products considered here ranged from only $7,000 to $23,000 annually. The principal suppliers were Spain, Portugal, Japan, and Italy.

Hash, balls, pastes, and similar forms: U.S. imports for consumption, by kinds, 1963-68

Year	Corned beef hash	Other hash, balls, pastes, and similar forms	Total
	Quantity (1,000 pounds)		
1963	1/	1/	1/
1964	2/	1/	1/
1965	-	1/	1/
1966	-	1/	1/
1967	344	1/	1/
1968	539	1/	1/
	Value (1,000 dollars)		
1963	1	13	14
1964	3/	23	23
1965	-	7	7
1966	-	16	16
1967	75	21	96
1968	130	19	149

1/ Not available.
2/ Less than 500 pounds.
3/ Less than $500.

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

Note.--During 1963-67, U.S. production of canned corned beef hash averaged about 78 million pounds annually; U.S. exports have been negligible in recent years.

Commodity	TSUS item
Bean cake, bean stick, miso, and similar products	182.15

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The bulk of the U.S. consumption of bean cake and similar products is supplied by domestic producers; imports supplement the domestic output.

Comment

In the Orient, soybean products serve largely as protein foods in place of milk, cheese, and meat. All of the products herein considered are prepared from soybeans; the most important are bean cake (tofu) and miso. To make bean cake, water-soaked soybeans are ground and diluted with water; the proteins in the resulting emulsion are coagulated and precipitated by adding calcium sulfate. The resulting curd, which has a white color and a soft delicate texture, is cut into cakes for marketing. Its protein content ranges from 6 to 17 percent, depending on the degree of moisture. The fresh product keeps for only a few days without refrigeration, but drying or smoking prolongs storage life. Bean cake imparts a meaty flavor in a variety of dishes, and in both China and Japan it is widely used as a food for young children.

Bean stick is a bean product shaped in the form of spaghetti or noodles. In preparing bean stick, the beans are soaked in water, ground to a paste, sieved to remove the hulls, and kneaded into a dough. The dough is pressed through a sieve into hot water, which coagulates the string-like dough, which is then cooled, cut into lengths, and dried. Bean stick is usually used in soups or with vegetables that are prepared by boiling.

Miso, a soybean and rice product popular in Japan, is prepared by a process of fermentation. With dark miso, which contains from 50 to 90 percent soybean and has a high concentration of salt, fermentation may proceed for several years. White miso, containing more rice and less salt, ferments more rapidly and the process may be completed in 2 weeks. The protein content is about 10 percent. Miso, with its paste-like consistency, is made into soups, or served with rice and other foods as a side dish or a dressing. For cooking

purposes, miso and thin soy sauce are to a certain extent interchangeable. Thin soy sauce (item 182.45) is discussed in the summary on sauces.

Domestic and imported soybean products taste differently, particularly since the former products are generally consumed fresh and the latter have been preserved to retard spoilage.

The column 1 rates of duty (see general headnote 3 in the TSUSA-1969) applicable to bean cake, bean stick, miso, and similar products are shown below:

	Rate of duty
Prior rate (rate at end of 1967)--	28% ad val.
Concession granted by the United States in 1964-67 trade conference (Kennedy Round):	
Second stage, effective January 1, 1969----------	22% ad val.
Final stage, effective January 1, 1972----------	14% ad val.

The prior rate of 28 percent ad valorem had been in effect from July 1, 1963, through the end of 1967, and reflected a concession granted by the United States in the General Agreement on Tariffs and Trade (GATT). As a result of a concession granted by the United States in the sixth round of trade negotiations under the GATT, the duty is being reduced by 50 percent in 5 annual stages (see the TSUSA-1969 for the other stages).

Virtually the entire U.S. consumption of the products herein considered is by persons of Oriental extraction. The bulk of consumption has been supplied by small-scale domestic producers, most of whom are of Chinese and Japanese descent; annual production data are not available.

Although U.S. annual imports were larger in the early 1960's than in most other years following World War II, they were still substantially below those in the 1930's. In the period 1963-68, annual imports ranged from 365,000 pounds to 616,000 pounds (see table). Hong Kong and Japan were the principal sources of imports, the bulk of which entered at west coast ports, New York, and Hawaii.

U.S. exports of bean cake and similar products have been small in recent years and have gone largely to Canada.

Bean cake, bean stick, miso, and similar products: U.S. imports for consumption, 1963-68

Year	Quantity	Foreign value	Unit value
	1,000 pounds	1,000 dollars	Cents per pound
1963	512	169	33.1
1964	519	172	33.2
1965	420	150	35.6
1966	365	126	34.6
1967	428	154	36.0
1968	616	201	32.7

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

Note.--The commercial manufacture of been cake, miso, and similar products has been confined to small scale operation by persons of Chinese and Japanese descent; production data are not available. U.S. exports have been negligible.

Commodity	TSUS item
Biscuits, cake, cakes, wafers, and similar baked products, and puddings, whether or not containing chocolate, fruit, nuts, or confectionery----------	182.20

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States produces most of the baked articles consumed domestically. Most imports are specialty products. Imports and exports are small compared with domestic production.

Description and uses

This summary includes puddings and practically all bakery products fit for human consumption (whether or not containing chocolate, fruit, nuts, or confectionery) made from flour with other ingredients, except for bread products leavened with yeast as the only leavening substance or ingredient (see the summary on item 182.25). Bread-type products leavened with yeast and another substance or ingredient such as baking soda or baking powder are included in this summary. The principal products covered by this summary are cakes, cookies, crackers, doughnuts, pies, other pastries, pretzels, ice cream cones, and puddings. Most are consumed as snack food or as desserts. Frozen baked products are included here if they are fully baked; frozen products which are not fully baked are classifiable as edible preparations under item 182.95.

Many of the terms used for products included in this summary have varying meanings. The term biscuit, as used most frequently by the populace of the United States, refers to a soft bread product leavened with baking powder or soda and molded or cut into small round or square shapes; on the other hand, the term also refers to yeast-leavened products (such as rolls and buns) provided for with other bread products in TSUS item 182.25. Furthermore, in the baking industry in the United States, the term biscuit applies to products more generally known as cookies and crackers. Although the meaning of the terms biscuits, cookies, and crackers overlap to some extent, in general, biscuits are usually used in the manner of bread products at mealtime; crackers, which ordinarily contain little sugar or other sweetening, are generally served with soups or as snacks; and cookies, usually quite sweet, are used as a snack or dessert. Wafer products

are thin, crisp, baked articles. They are often a flat, cookie-type article filled with a sugar icing; other wafers are covered with chocolate and sold as a confection; a third wafer product is shaped into the form of a cone to be filled with ice cream. Such articles as soda crackers are sometimes referred to as wafers.

Many of the products to which the term pudding is applied are not included in this summary. The puddings considered here are usually dessert products generally made from flour or other grain products with sugar, eggs, milk, fruit, and other ingredients and usually baked or boiled. Examples of other products to which the term pudding is applied include flavored starch solutions, used as a dessert; sausage-like meat products, which are usually boiled; fish puddings (provided for in items 113.05-113.15); and puddings of vegetables or vegetables and meat or fish (item 182.11).

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.20	Biscuits, cake, cakes, wafers, and similar baked products, and puddings, all the foregoing by whatever name known, and whether or not containing chocolate, fruit, nuts, or confectionery.	6.5% ad val.	5% ad val.	3% ad val.

The tabulation above shows the column 1 rate of duty in effect from the effective date of the TSUS on August 31, 1963, to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final

(fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

U.S. consumption, producers, and production

U.S. consumption and production of the bakery products included herein have increased gradually for many years. Consumption averaged $2.5 billion annually in the period 1963-66 (table 1), or $0.3 billion larger than in the preceding 4-year period. Consumption increased at an average annual rate of 3.0 percent in the period 1958-66.

In 1966, crackers, cookies, pretzels, and other dry bakery products accounted for about 48 percent of the manufacturer's shipments, soft cakes and pies accounted for about 27 percent, with the remaining 25 percent consisting mostly of sweet yeast goods, doughnuts, and pastries. There were 5,366 establishments producing bakery products in the United States in 1965. (This number does not include small single unit retail bakeries producing baked goods on the premises.) The bakeries included are located throughout the country with particular concentration near the centers of population. For most of these establishments the bakery products discussed herein were virtually the only items produced. Shipments of these bakery products accounted for 97 percent of total shipments from the establishments which produced them in 1965.

U.S. exports and imports

U.S. exports of baked articles, which have been increasing in recent years, averaged $6.9 million annually during the period 1963-68 (table 2). Canada, Sweden, and the Bahamas have been the principal markets in recent years. Exports have consisted principally of products which are not highly perishable, such as: (1) dry baked goods such as cookies, ice cream cones, crackers, pretzels, and corn sticks; and (2) canned or moisture-proof packaged fruitcakes and nut and fruit rolls.

Imports were relatively small, averaging about 0.5 percent of consumption annually for the 4-year period 1963-66. In the period 1963-68, imports averaged about $14.3 million (table 3), or about $6.4 million larger than those in the preceding 5-year period. Canada and the United Kingdom were the principal suppliers in recent years. The imports from Canada, which more than doubled in the period 1964-68, are similar to and compete with domestic products. Such competition is focused in border areas of the Northeast and in Michigan. Imports from Europe have consisted principally of specialty biscuits, cookies, puddings, and wafers which are usually not directly competitive with the bulk of the domestic output.

Table 1.--Biscuits, cakes, wafers, and similar baked products: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1963-68

(In thousands of dollars)

Year	Production 1/	Imports	Exports 2/	Apparent consumption
1963	2,304,477	9,338	5,300	2,308,515
1964	2,398,344	11,230	6,465	2,403,109
1965	2,511,505	11,888	6,387	2,517,006
1966	2,666,214	15,771	8,687	2,673,298
1967	3/	16,805	7,679	3/
1968	3/	20,685	7,097	3/

1/ Quantity data not available. The value shown is value of shipments.

2/ Contains a small quantity of bread and bread-type rolls.

3/ Not available.

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

Table 2.--Bakery products: U.S. exports of domestic merchandise, by specified markets, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	5,028	7,559	5,600	7,273	6,202	7,016
Bahamas	868	1,111	1,832	2,552	2,657	2,524
Sweden	703	1,137	1,257	1,712	2,012	1,212
Netherlands Antilles	737	845	753	808	724	749
Panama	282	388	429	469	393	508
Dominican Republic	1,039	1,200	747	837	593	459
All other	3,825	3,716	3,718	4,428	5,100	5,428
Total	12,482	15,956	14,336	18,079	17,681	17,896
	Value (1,000 dollars)					
Canada	2,249	2,833	2,501	3,474	2,417	2,410
Bahamas	307	375	566	720	782	819
Sweden	387	820	963	1,567	1,399	686
Netherlands Antilles	284	328	295	337	319	322
Panama	120	174	221	209	186	241
Dominican Republic	319	370	228	270	168	155
All other	1,634	1,565	1,613	2,110	2,408	2,464
Total	5,300	6,465	6,387	8,687	7,679	7,097

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

Note.--Data include exports of small quantities of bread and bread-type rolls.

Table 3.--Bakery products, other than bread: U.S. imports for consumption, by major countries, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	1/	8,762	12,105	18,959	21,422	24,935
United Kingdom	1/	7,936	8,979	11,790	12,644	16,250
Denmark	1/	2,653	1,922	1,360	1,483	1,972
Netherlands	1/	2,255	2,041	2,136	3,644	2,528
Switzerland	1/	959	706	851	941	1,579
West Germany	1/	852	907	1,019	1,011	1,298
France	1/	522	399	761	1,027	1,142
All other	1/	5,436	4,796	5,046	3,737	7,622
Total	1/	29,375	31,855	41,922	45,909	57,326
	Value (1,000 dollars)					
Canada	2,563	2,610	3,414	6,071	6,224	7,241
United Kingdom	2,638	3,405	3,702	4,503	4,794	5,733
Denmark	646	1,175	936	770	1,078	1,390
Netherlands	581	935	944	1,040	1,146	1,387
Switzerland	442	408	326	435	457	798
West Germany	699	430	481	531	526	697
France	734	301	252	483	541	691
All other	1,623	1,966	1,833	1,938	2,039	2,748
Total	9,426	11,230	11,888	15,771	16,805	20,685

1/ Not available.

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

Commodity	TSUS item
Bread made with yeast as the leavening substance	182.25

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States produces practically all of the yeast-leavened bread consumed domestically. Exports are negligible. Imports, though small, have had an impact in some areas bordering Canada.

Description and uses

Bread, except for a few items referred to as unleavened bread, is made by baking leavened dough. The bread products included in this summary are made with the use of yeast as the only leavening substance or ingredient. Such products are marketed fresh, dried, toasted, or frozen. The principal types of bread products are loaf bread and bread-type rolls (including brown and serve products); dry, hard, crisp, wafer-like rye bread; and bread cubes, including croutons, and crumbs. The demand in the United States is predominantly for fresh loaf bread, often baked on the same day it reaches the consumer. Daily freshness is not essential for hard-crisp rye bread and bread cubes and crumbs and they remain in saleable condition for a considerable length of time.

The nutritive value, taste, and appearance of bread depends largely on the type of grain from which the flour was milled, and on the milling of the flour. Wheat is the principal grain used in making bread; however, rye is also used in large quantities, and is the preferred grain in certain areas of the world where dark bread is popular. In the United States, white bread made from wheat flour is generally preferred. Other specialty yeast-leavened breads are made with oatmeal, corn, or potato flour, or from a mixture of flours. Some of the different types of bread are named from the non-flour ingredients they contain, such as, nut bread, raisin bread, potato bread and egg bread. Bread cubes and coarse crumbs are used in stuffing poultry and other foods, in puddings, in soups, and in salads. Finely ground bread crumbs are ordinarily used as a coating (breading) or garnish for various cooked or baked foods (e.g. meats, poultry, seafood, noodles, and vegetables).

U.S. tariff treatment

The current column 1 rate of duty applicable to imports (see headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
182.25	Bread made with the use of yeast as the leavening substance----------	Free

This rate is the same as the rate provided under paragraph 1623 of the Tariff Act of 1930 as originally enacted. The free rate was bound in part effective April 30, 1950, under the General Agreement on Tariffs and Trade, i.e., with respect to hard, crisp bread made from rye flour and not more than 5 percent of wheat flour, if any; the free rate for other bread was bound effective August 2, 1951. The duty-free status of bread was not affected by the sixth round of trade negotiations.

Refrigerated or frozen unbaked bread dough, and bread crumbs and cubes mixed with seasonings and other ingredients, are provided for under item 182.95 as edible preparations, not specially provided for, at the rate of 16 percent ad valorem. Breading made from crumbs of bread not made with the use of yeast as the leavening substance and biscuits not made with the use of yeast are provided for as biscuits, cake, cakes, wafers, and similar baked products under item 182.20, and are dutiable at the rate of 5 percent ad valorem.

U.S. consumption

Virtually all of the commercial loaf bread consumed in the United States is produced by domestic industry. Due to consumer demand for fresh bread and the fact that loaf bread stays fresh only a few days at most, bread is consumed close to where it is produced; imported loaf bread is usually consumed at or near the ports of entry. In the period 1963-66, U.S. consumption of commercial bread and bread-type rolls is estimated to have averaged about 14.2 billion pounds annually, only slightly higher than consumption in the preceding 4-year period. Since World War II increases in consumption have not kept pace with the increase in population. This is also true of other starchy foods like potatoes and beans.

Hard-crisp rye bread is consumed principally by people of Scandinavian descent or by the diet-conscious among the general population. On the basis of limited data available, consumption is estimated to have been in the range of 10 million to 15 million pounds annually in recent years. Imports supply an appreciable part of the hard-crisp rye bread consumed in the United States.

It is known that consumption of commercially produced bread crumbs and cubes has risen, but definite data are not available; these products save time and labor in the preparation of foods, both commercially and in the home. Imports have supplied a considerable part of the commercially produced bread crumbs consumed in the United States in recent years.

U.S. producers and production

In the last 3 decades the production of bread has become concentrated in fewer and larger bakeries, with increased output per bakery. In 1963 there were 5,010 establishments producing bread and related products. These bakeries were located throughout the United States, near the centers of population. Of the 5,010 bakeries operating in 1963, 4,287 were wholesale bakeries, 153 were operated by grocery chain store companies, 281 were bakeries selling chiefly through home service routes, and 289 were retail multi-outlet bakeries. The number of bakeries declined from 6,026 in 1958; this is a continuation of a long-time trend. There were 10,300 bakeries in 1939, 6,800 in 1947, and 6,103 in 1954. The changeover from batch to continuous-mix processing which began in about 1953 increased the efficiency of the larger bakeries and made it more difficult for the smaller bakeries to compete.

Commercial production of bread in the United States has been increasing for many years. Manufacturers' shipments of bread and bread-type rolls amounted to 13.7 billion pounds, valued at $2.5 billion, in 1963. In 1966, shipments of bread and bread-type rolls were valued at $2.8 billion. Shipments in 1958 were valued at $2.2 billion.

Data on the production of bread crumbs are not available, but production is believed to be large compared to imports. The production of bread crumbs is centered among the larger bakeries which also produce loaf bread and other baked products.

The baking of bread in the home has become much less important than in the past. Much of the bread that is currently baked in the home is made from ready-to-bake dough purchased in the frozen form.

U.S. exports and imports

While data on U.S. exports of bread are not separately reported, exports are believed to be negligible. Total exports of all bakery products (of which bread accounts for only a small part) averaged 16.1 million pounds with a value of $6.9 million annually in 1963-68.

Imports of bread into the United States have also been very small in relation to domestic production. According to official statistics, the quantity of bread imported into the United States increased irregularly from 13 million pounds in 1963 to 23 million pounds in 1968; the value of the imports increased from $1.5 million in 1963 to $3.2 million in 1968 (table 1). Official data on imports, however, do not include certain low-value shipments which accounted for 43 percent of the total imports of bread in 1964, the last year for which a sample of such entries was made. Much of the border trade is in relatively small truck load quantities which are not recorded in official statistics because of their low value.

Bread crumbs have accounted for most of the bread imported into the United States in recent years. In 1965-68, the only years for which separate data are available, bread crumbs accounted for 80 percent of the total imports of bread, hard crisp rye bread for 8 percent, and loaf bread and bread-type rolls for 12 percent.

The Scandinavian countries have been the principal sources of imported hard-crisp rye bread. Canada has been the principal source of imported bread crumbs and loaf bread (table 2).

Inasmuch as loaf bread is usually not shipped long distances due to consumer demand for fresh bread, imported loaf bread is generally consumed close to the port of entry. Imported bread has, at times, offered serious competition to domestic bakeries at the principal ports of entry in Michigan and the Northeastern States. Recently small quantities of specialty types of loaf bread have been shipped by air from Europe into the Eastern United States.

Table 1.--Bread made with yeast as the leavening substance: U.S. production and imports for consumption, by type, 1963-67

Year	Production 1/	Imports				Ratio of imports to production
		Hard-crisp rye	Bread crumbs 2/	Other	Total	
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	Percent
1963--	13,733,393	1,557	3/	4/ 11,127	12,684	0.1
1964--	5/ 14,019,560	1,585	3/	4/ 13,276	14,861	0.1
1965--	5/ 14,157,802	1,551	14,664	2,149	18,364	0.1
1966--	5/ 15,244,137	1,557	13,279	2,518	17,354	0.1
1967--	6/	1,588	15,604	2,557	19,749	6/
1968--	6/	1,432	19,210	2,418	23,060	6/
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1963--	2,496,642	337	1/	4/ 1,211	1,548	0.1
1964--	2,551,560	348	395	4/ 1,135	1,878	0.1
1965--	2,576,720	321	1,597	230	2,148	0.1
1966--	2,774,433	360	1,579	276	2,215	0.1
1967--	6/	400	2,114	284	2,798	6/
1968--	6/	353	2,536	278	3,167	6/

1/ Shipments of loaf bread and bread-type rolls only; does not include bread cubes and crumbs. Data on cubes and crumbs are not reported separately; they are included in a miscellaneous category of bread and related products valued at an estimated value of over $100 million in 1966.

2/ Includes small quantities of bread cubes, croutons, and other baked goods. 3/ Not separately reported.

4/ Includes bread crumbs.

5/ Estimated, based on average unit value of shipments in 1963.

6/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 2.--Bread made with yeast as the leavening substance: U.S. imports for consumption, by major countries, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (thousand pounds)					
Canada	10,577	12,918	16,214	14,530	16,202	19,287
Sweden	1,225	1,151	1,197	1,019	1,166	1,213
Netherlands	-	29	105	414	975	866
Italy	170	141	133	248	170	232
All other	712	622	715	1,143	1,236	1,462
Total	12,684	14,861	18,364	17,354	19,749	23,060
	Value (thousand dollars)					
Canada	1,087	1,441	1,679	1,540	1,785	2,132
Sweden	267	251	256	225	288	315
Netherlands	-	8	30	121	349	292
Italy	79	160	63	81	88	112
All other	115	18	120	248	288	316
Total	1,548	1,878	2,148	2,215	2,798	3,167
	Unit value (cents per pound)					
Canada	10.3	11.2	10.4	10.6	11.0	11.1
Sweden	21.8	21.8	21.4	22.1	24.7	25.9
Netherlands	-	27.6	28.6	29.2	35.8	33.7
Italy	46.5	113.5	47.4	32.7	51.8	48.5
All other	16.2	2.9	16.6	21.8	23.3	21.6
Average	12.2	12.6	11.7	13.0	14.2	13.7

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

Commodity	TSUS item
Cereal breakfast foods processed further than milling----------	182.30

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Virtually all U.S. consumption of cereal breakfast foods--2.1 billion pounds in 1968--has been supplied by domestic producers. Exports, which averaged about 5 percent of domestic production during the period 1963-68, have been many times larger than imports.

Description and uses

The cereal breakfast foods and similar cereal preparations considered here have all been processed further than milling (oatmeal and rolled oats breakfast foods are included in the summary on items 131.25 and 131.27, vol. 1:6). Cereal breakfast foods, largely made from wheat, corn, rice, or oats but also made from other grains and other food products, are of two types: (1) those that require cooking, and (2) those that are ready-to-serve without cooking. The latter type has been almost exclusively American in use, although its popularity in Europe and elsewhere has been expanding. The cereals herein considered that require cooking are generally granular in form and those of the so-called ready-to-serve type range from granules in baby breakfast foods to flakes, shreds, puffs, and biscuits in the dry cereals. Recently, ready-to-serve cereals that are sweetened or that contain freeze-dried fruit have been introduced. Baby food cereals generally do not require cooking.

U.S. tariff treatment

The column rates of duty applicable to cereal breakfast foods (see general headnote 3 in the TSUSA-1969) are as follows:

	Rate of duty
Prior rate (rate at the end of 1967)--	5% ad val.
Concession granted by the United States in 1964-67 trade conference (Kennedy Round):	
First stage, effective January 1, 1968 1/----------	4% ad val.
Final stage, effective January 1, 1972----------	2.5% ad val.

1/ The first stage rate will be in effect through December 1969.

The prior rate of 5 percent ad valorem had been in effect from June 6, 1951, through the end of 1967. As a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade, the duty is being reduced by 50 percent in 3 stages (see the TSUSA-1969 for the other stage).

Imported cereal breakfast foods that are in chief value of manufactured sugar are subject to an additional duty of 0.53 cent per pound on the total sugar content (item 901.00, appendix to the Tariff Schedules of the United States).

U.S. consumption, producers, and production

During the period 1963-68, annual apparent consumption of cereal breakfast foods (supplied almost entirely by domestic producers) increased from 1.5 billion pounds to 2.1 billion pounds (table 1). This was equivalent to a per capita increase in consumption of nearly 25 percent. The proportionate consumption of ready-to-serve cereals has continued to increase in recent years at the expense of the cereals requiring cooking. The current annual per capita use of ready-to-serve and cooked cereals is estimated at about 6 pounds and 1 pound, respectively. An increase in the consumption of ready-to-serve cereals is likely to continue. Moreover, the numerous new cereals with added ingredients on the market encourage a wider acceptance.

During 1963-68 U.S. production of cereal breakfast foods increased from 1.6 billion to 2.1 billion pounds annually. The most popular cereal breakfast foods have been made of wheat. In 1963, cereals containing wheat accounted for 42 percent of the output, followed by those with corn (25 percent), rice (15 percent), and oats (13 percent); the remaining 5 percent of the output was mostly of baby food cereals and preparations of mixed grains. More than two-thirds of the wheat breakfast foods were of the ready-to-serve type.

Cereal breakfast foods were the primary products of many of the 49 establishments with such production in 1963. However, many of these establishments are affiliated with concerns that have interests in a number of enterprises. Three firms having several plants account for about four-fifths of the domestic output. The bulk of the production has been in the North-central States; Michigan has been the principal producing State.

U.S. exports

The United States is a substantial net exporter of cereal breakfast foods. In the period 1963-68, annual exports averaged 49.2 million pounds compared with 15.3 million pounds in the preceding 5-year period. The bulk of the unusually large exports in recent years has consisted of wheat cereals requiring cooking. U.S. exports go to many countries; generally, Latin America has been the largest market (table 2).

U.S. imports

U.S. imports of cereal breakfast foods have been negligible compared to domestic production. In the period 1963-67, imports increased annually from 888,000 to 3.7 million pounds; in 1968 they amounted to 3.3 million pounds. In recent years the bulk of the imports have come from Switzerland and Canada (table 3). The sharply higher level of imports in 1965-68 over those in earlier years reflected: (1) shipments of a ready-to-serve cereal made in Canada by a branch of a U.S. concern, and (2) imports of distinctive breakfast foods containing dried fruits and nuts, from Switzerland. A large part of the cereals imported in recent years have contained sweeteners or other specialty ingredients and the average unit value of the imports has increased accordingly. The consumption of imports has been limited in a market dominated by a few domestic firms which produce almost every imaginable type of breakfast food.

The United States is, by far, the world's largest producer of cereal breakfast foods. Production in Canada, currently the only potential source of significant imports, has been equivalent to about a tenth of the U.S. output in recent years. A large share of the output in that country has been by affiliates of U.S. producers.

Table 1.--Cereal breakfast foods: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1963-68

Year	Production	Imports	Exports	Apparent consumption
	Quantity (1,000 pounds)			
1963	1,596,841	888	96,849	1,500,880
1964	1/ 1,700,000	969	73,571	1,627,398
1965	1/ 1,800,000	2,388	10,133	1,792,255
1966	1/ 1,900,000	2,641	26,313	1,876,328
1967	1/ 2,000,000	3,682	41,151	1,962,531
1968	1/ 2,100,000	3,287	47,338	2,055,949
	Value (1,000 dollars)			
1963	489,106	258	5,724	2/
1964	608,460	320	6,555	2/
1965	651,903	860	2,010	2/
1966	690,822	792	3,229	2/
1967	3/	1,207	4,753	2/ 3/
1968	3/	875	4,791	2/ 3/

1/ Estimated by the staff of the U.S. Tariff Commission.
2/ Not meaningful.
3/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 2.--Cereal breakfast foods: U.S. exports of domestic merchandise, by principal markets, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
South Vietnam	82,519	44,955	-	8,394	-	27,607
Canada	1,131	929	835	1,053	1,460	3,147
Venezuela	1,557	1,616	302	517	5,682	1,141
United Kingdom	302	258	590	599	1,205	1,301
Dominican Republic	1,284	1,144	391	473	1,625	535
Peru	1,068	2,867	1,532	4,044	3,862	2,385
Brazil	-	4,147	1,213	5,788	16,012	2,822
West Germany	2	66	100	66	679	297
India	19	20	11	-	2,162	5
All other	8,967	17,569	5,159	5,379	8,464	8,098
Total	96,849	73,571	10,133	26,313	41,151	47,338
	Value (1,000 dollars)					
South Vietnam	3,182	2,850	-	516	-	1,077
Canada	242	156	157	262	386	416
Venezuela	478	424	68	92	533	252
United Kingdom	57	73	152	111	234	220
Dominican Republic	84	129	84	98	178	145
Peru	85	226	119	269	213	129
Brazil	-	265	68	417	1,222	129
West Germany	1/	16	24	16	181	78
India	7	7	4	-	96	3
All other	1,589	2,409	1,334	1,448	1,710	2,342
Total	5,724	6,555	2,010	3,229	4,753	4,791

1/ Less than $500.

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

Table 3.--Cereal breakfast foods: U.S. imports for consumption, by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Switzerland	504	576	758	781	917	1,098
Canada	310	258	1,396	1,571	2,297	785
Belgium	-	1	1	5	73	129
United Kingdom	17	14	55	61	52	183
Netherlands	-	-	-	-	60	40
West Germany	20	23	41	53	44	49
Italy	5	59	72	53	52	71
All other	32	38	65	117	187	932
Total	888	969	2,388	2,641	3,682	3,287
	Value (1,000 dollars)					
Switzerland	178	226	298	307	281	396
Canada	67	63	506	418	798	249
Belgium	-	1/	1	2	39	60
United Kingdom	4	4	18	21	21	49
Netherlands	-	-	-	-	23	16
West Germany	4	7	12	18	15	15
Italy	1	11	12	9	9	13
All other	4	9	13	17	21	77
Total	258	320	860	792	1,207	875

1/ Less than $500.

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

Commodity	TSUS item
Chewing gum----------	182.32

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is the world's largest producer and exporter of chewing gum; imports have been equivalent to less than 1 percent of domestic production.

Description and uses

Chewing gum, although not strictly a confection, is usually displayed in retail stores with candy. Generally, it consists of 60 percent sugar, 20 percent gum base, 19 percent corn syrup, and 1 percent flavoring. Since World War II, synthetic gum bases have largely replaced chicle as the basic ingredient in chewing gum. Recently, sugarless gums (made with artificial sweeteners) have been developed. Medicated chewing gum containing aspirin, laxatives, caffein, and other products is classifiable under appropriate provisions of the TSUS depending on the ingredients contained therein.

U.S. tariff treatment

The column 1 (or trade agreement) rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.32	Chewing gum----------	10% ad val.	8% ad val.	5% ad val.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT).

Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). The prior rate of 10 percent ad valorem was derived from the GATT rate applicable to "other" manufactured articles not specially provided for, under paragraph 1558 of the Tariff Act of 1930, which rate became effective originally on June 6, 1951. Imported chewing gum had been classified as a nonenumerated manufactured article, edible, dutiable at 20 percent ad valorem under paragraph 1558 prior to September 1959 when the U.S. Customs Court held that gum was not edible (C.D. 2117).

Imported chewing gum in chief value of sugar is subject to an additional duty of 0.53 cents per pound on the total sugar content (item 901.00, appendix to the Tariff Schedules of the United States).

U.S. consumption, production, and domestic producers

The United States is the world's largest producer and consumer of chewing gum. Virtually all of the domestic consumption is supplied by U.S. producers. The following tabulation shows U.S. shipments 1/ of chewing gum for 1963-67, as compiled from official statistics of the U.S. Department of Commerce:

Year	Quantity	Value
	1,000 pounds	1,000 dollars
1963	282,260	188,835
1964	1/	221,152
1965	1/	234,730
1966	1/	253,525
1967	338,400	271,900

1/ Not available.

In the period 1963-66, the value of producers' shipments of chewing gum rose by 34 percent. In 1963, 16 of the 24 domestic producers were located in the Northeastern and the North Central States; New York, with 7 of them, was the principal producing State. Three manufacturers supply about two-thirds of the domestic output. The sale of chewing gum has provided the major source of income for most concerns; in 1963, chewing gum accounted for about 85 percent of the value of producers' shipments.

1/ U.S. shipments by producers are a reliable indication of domestic production.

U.S. exports

The United States has been on a substantial, though declining, net export basis with regard to chewing gum in recent years. In the period 1963-68, exports fluctuated within a narrow range and averaged 9.6 million pounds with a value of $5.7 million annually (table 1). The share of the domestic output that was exported during this period averaged about 2.5 percent. Exports in the preceding 5-year period 1958-62 averaged about 12.2 million pounds annually. The lower level of exports in recent years in comparison to those in 1958-62 is due largely to 3 factors: (1) The loss of the important Cuban market; (2) an increase in production in foreign countries; and (3) an increase in the price of U.S. gum relative to that in other countries. Although chewing gum is exported to many countries, the consistent principal markets have been Hong Kong, the Philippine Republic, Canada, Switzerland, and countries in Latin America.

Sugar is an important constituent in chewing gum and the domestic manufacturers have used the draw-back provisions of section 313, Tariff Act of 1930, and sections 22.5 and 22.6 of Customs Regulations, with respect to foreign sugar for manufacturing for export. This enables the manufacturer of chewing gum to use imported sugar and, upon export of the chewing gum, to receive a refund of nearly all of the duty paid on the sugar. A provision of the Sugar Act of 1948, as amended, allows the purchase of foreign sugar without being subject to quota if it is to be used for products for export; this also enables chewing gum manufacturers to use sugar purchased at the lower world market prices when they are exporting gum.

U.S. imports

U.S. imports of chewing gum generally have been equivalent to less than 1 percent of domestic production and have consisted principally of bubblegum. In 1964-68, imports increased from 1.6 million pounds, valued at $415,000, to 7.2 million pounds, valued at $1.7 million (table 2). 1/ During that period Canada supplied 75 percent of the total imports. The bulk of the imports from Canada entered at the customs district of Buffalo, New York, while those from other countries entered at New York City.

Foreign production of chewing gum, although expanding in recent years, has been small in relation to that in the United States. Moreover, affiliates of U.S. producers supply an important part of the

1/ Imports of chewing gum were not separately reported prior to August 31, 1963, the effective date of the TSUS.

foreign output. In 1965, 14 concerns in Canada, the principal source of U.S. imports, produced some 23.9 million pounds of chewing gum, equivalent to 7 percent of U.S. production. In recent years, annual exports of gum from Canada to the United States have amounted to about 10 percent of Canadian output.

Table 1.--Chewing gum: U.S. exports of domestic merchandise, by specified markets, 1963-68

Market	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Hong Kong	796	910	882	702	1,002	948
Mexico	464	505	570	551	532	589
Nansei Islands	174	167	183	291	416	437
Japan	178	181	184	153	378	584
Switzerland	336	267	519	580	461	580
Canada	767	795	740	748	889	841
Kuwait	322	234	203	258	235	260
Belgium	379	553	279	427	420	377
Austria	134	211	257	334	839	233
Dominican Republic	426	438	284	383	314	144
All other	5,250	5,305	5,534	5,597	4,420	4,101
Total	9,226	9,566	9,635	10,024	9,906	9,094
	Value (1,000 dollars)					
Hong Kong	651	754	732	578	794	768
Mexico	300	345	379	383	398	421
Nansei Islands	138	130	144	232	335	371
Japan	93	105	127	119	269	371
Switzerland	173	159	263	296	276	344
Canada	369	355	325	327	386	338
Kuwait	218	177	150	197	191	222
Belgium	201	225	128	201	194	190
Austria	62	92	106	127	334	99
Dominican Republic	279	268	187	269	217	77
All other	3,287	2,974	2,957	2,910	2,254	2,115
Total	5,771	5,584	5,498	5,639	6,648	5,316

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

Note.--The table includes only consistent major markets. Some countries have been fairly large export markets but only during part of the period.

Table 2.--Chewing gum: U.S. imports by principal sources, 1963-68

Source	1963 1/	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	156	1,186	2,377	2,293	3,268	5,203
Ireland	21	54	32	167	584	954
Denmark	82	188	156	240	139	275
Netherlands	29	34	44	17	70	104
Guatemala	11	21	3	23	40	101
Italy	-	18	7	-	98	44
All other	33	76	127	65	137	495
Total	332	1,577	2,746	2,805	4,336	7,176
	Value (1,000 dollars)					
Canada	37	276	539	490	754	1,211
Ireland	7	13	10	38	133	200
Denmark	27	71	58	85	51	117
Netherlands	10	13	14	5	22	33
Guatemala	3	6	1	7	12	31
Italy	-	6	3	-	35	16
All other	14	30	38	20	35	109
Total	98	415	663	645	1,042	1,717

1/ Data are for Sept.-Dec. only.

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

Commodity	TSUS item
Marcaroni, noodles, vermicelli, and similar alimentary pastes:	
Not containing egg or egg products	182.35
Containing egg or egg products	182.36

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. production of alimentary pastes, which amounted to 1.1 billion pounds valued at $205 million in 1963, has been increasing in recent years. Despite a doubling of the imports and a 20 percent decline in exports in 1963-68, domestic production supplied virtually all of the U.S. apparent consumption in that period. Imports in 1963-68 were equivalent to less than 2 percent of apparent consumption.

Description and uses

Alimentary pastes are foods which are made by drying formed units of dough usually made from semolina (a coarsely milled product obtained from durum wheat), durum flour, farina, other flour, or any combination thereof, with water. Alimentary pastes are starchy foods usually consumed after being cooked in water, drained, and mixed with other foods such as tomato sauce, meats, fish, or cheese. The principal forms of alimentary pastes are macaroni, spaghetti, vermicelli, and noodles. Macaroni is made in smooth, tubular forms of varying sizes and shapes. Spaghetti and vermicelli are made in solid, cordlike forms, the former having a slightly larger diameter. Noodles are ribbon-shaped.

The Food and Drug Administration Standards of Identity for that class of products referred to as "macaroni and noodles" (21 CFR 16) contain labeling and ingredient requirements for such alimentary pastes. To be labeled as noodles, egg macaroni, egg spaghetti, or egg vermicelli, the product must contain not less than 5.5 percent egg or egg yolk solids by weight of the total solids weight of the product.

Domestically-made alimentary pastes and those imported from such countries as Italy and Canada have been similar in type and quality; those imported from Asian countries, for instance, Hong Kong, Japan, and Taiwan, have consisted largely of specialty items.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Macaroni, noodles, vermicelli, and similar alimentary pastes:			
182.35	Not containing egg or egg products.	1¢ per lb.	0.8¢ per lb.	0.5¢ per lb.
182.36	Containing egg or egg products.	1.5¢ per lb.	1.2¢ per lb.	0.7¢ per lb.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). The rates of duty in effect prior to January 1, 1968, had been in effect since May 30, 1950, and also reflected concessions under the GATT.

The average ad valorem equivalents of the duties in effect during 1968, based on imports in 1968, on alimentary pastes not containing egg and on those containing egg or egg products were 5.5 and 4.3 percent, respectively.

U.S. consumption

In 1963-68, the consumption of alimentary pastes increased slightly, averaging about 1.2 billion pounds annually. Virtually all of the consumption was supplied domestically (table 1). The bulk of the increase in consumption reflected both the rise in population and a slight increase in per capita consumption. Most of the alimentary pastes consumed in recent years have not contained egg or egg products; the other products have consisted largely of egg noodles.

U.S. producers

Alimentary pastes were produced in 222 establishments in 1963, 8 more than in 1958. In 1963, three-fourths of the output was accounted for by about one-fifth of the producers. Many of the smaller concerns distributed their products only in local markets. The manufacture of alimentary pastes was the sole activity for virtually all domestic producers.

Most producers are located in large metropolitan areas. In 1963, the principal producing States were New York, California, New Jersey, Pennsylvania, and Illinois; together, these States supplied nearly two-thirds of the domestic output.

U.S. production

The domestic output of alimentary pastes has increased gradually for a number of years. In the period 1958-63 annual shipments 1/ by domestic producers increased from 996 million pounds, valued at $165 million, to 1,144 million pounds, valued at $205 million. Nearly 85 percent of the shipments consisted of articles without eggs.

In recent years, the quantity of wheat ground into flour for use in the manufacture of alimentary pastes averaged about 25 million bushels annually.

U.S. exports

U.S. exports of alimentary pastes averaged about 50 percent lower in the early 1960's than in the early 1950's largely because Canada, the major U.S. export market, reduced its purchases of alimentary pastes from the United States, and Cuba ceased to be an important market. In addition to Canada, other important markets for U.S. exports in recent years were Panama, the Bahamas, Thailand, and Japan. In the period 1963-68, exports ranged from 1.3 million pounds, valued at $299,000 in 1968, to 2.6 million pounds, valued at $514,000 in 1964 (table 2), and averaged about two-thirds smaller than those in 1958-62. During 1963-68, annual exports were equivalent to less than 1 percent of domestic output and averaged about 10 percent of U.S. imports; prior to the mid-1950's the United States had generally been a net exporter of alimentary pastes.

1/ The shipments of alimentary pastes, as reported in U.S. Department of Commerce statistics, are a reliable indication of domestic output.

U.S. imports

U.S. imports of alimentary pastes increased from 9.7 million pounds, valued at $1.6 million, in 1963 to 18.8 million pounds, valued at $3.3 million, in 1968; average annual imports in 1963-68 were nearly double those in the preceding 5-year period. Although imports have increased substantially, they were still equivalent to less than 2 percent of apparent consumption. Most of the imported alimentary pastes during 1963-68 did not contain eggs; those pastes containing eggs accounted for about 7 percent of the total imports.

The principal suppliers of imports of alimentary pastes without eggs have been Canada, Italy, Hong Kong, and Japan (table 3); the major sources of imports of pastes containing eggs have been Japan, Switzerland, Hong Kong, and Italy (table 4). The bulk of the imported articles from Canada entered at Detroit and Buffalo and those from Italy entered at New York and Philadelphia. Most of the imports of the specialty products from Asiatic sources entered at Los Angeles, New York, and San Francisco.

Alimentary paste manufacturers in Canada, and the larger concerns in Italy, have modern productive facilities; numerous small producers supplied the bulk of the output in Asian countries. Annual production in Canada averaged 60 percent larger in 1960-62 than in 1952-54. In the early 1960's about 3 percent of Canada's production was exported to the United States. Most of the output in Italy and in Asia was consumed locally.

Table 1.--Macaroni, noodles, vermicelli, and similar alimentary pastes: U.S. shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, 1963-68

Year	Shipments	Imports	Exports	Apparent consumption
	Quantity (1,000 pounds)			
1963	1,143,802	9,749	1,930	1,151,623
1964	1/	10,393	2,603	1/
1965	1/	10,386	1,863	1/
1966	1/	13,672	1,706	1/
1967	1/	17,768	1,541	1/
1968	1/	18,840	1,278	1/
	Value (1,000 dollars)			
1963	204,974	1,618	374	2/
1964	233,072	1,803	514	2/
1965	222,333	1,740	385	2/
1966	224,607	2,296	360	2/
1967	1/	2,979	356	1/2/
1968	1/	3,289	299	1/2/

1/ Not available.
2/ Not meaningful.

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

Note.--In 1963-67, imports were equivalent to less than 1 percent of apparent consumption.

Table 2.--Macaroni, noodles, vermicelli, and similar alimentary pastes: U.S. exports of domestic merchandise, by principal markets, 1963-68

Market	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Bahamas	209	255	104	176	227	231
Canada	450	1,057	712	455	377	238
Panama	304	296	292	316	222	134
Thailand	40	71	63	63	111	125
Japan	146	63	74	70	120	96
Nansei Islands	38	48	65	64	56	73
United Kingdom	55	125	14	47	72	47
Liberia	34	22	54	46	78	36
Lebanon	41	54	56	32	38	34
Trust Territory of the Pacific Islands	26	36	21	24	25	18
All other	587	576	408	413	215	246
Total	1,930	2,603	1,863	1,706	1,541	1,278
	Value (1,000 dollars)					
Bahamas	43	57	24	40	63	66
Canada	85	201	148	78	77	45
Panama	57	57	57	68	48	29
Thailand	8	14	12	13	25	28
Japan	26	11	13	15	29	22
Nansei Islands	7	10	12	14	13	17
United Kingdom	11	21	3	12	15	10
Liberia	7	5	12	11	17	8
Lebanon	9	12	12	8	9	8
Trust Territory of the Pacific Islands	5	7	5	6	6	4
All other	116	119	87	95	54	62
Total	374	514	385	360	356	299

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

Table 3.--Macaroni, noodles, vermicelli, and similar alimentary pastes, not containing egg or egg products: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	3,286	3,867	4,062	6,366	8,458	7,800
Italy	4,272	4,098	4,150	4,390	5,866	7,187
Hong Kong	799	933	926	909	980	1,082
Japan	633	773	665	607	802	883
Taiwan	41	51	61	143	204	190
All other	64	71	63	63	128	203
Total	9,095	9,793	9,927	12,478	16,438	17,345
	Value (1,000 dollars)					
Canada	491	572	601	925	1,297	1,277
Italy	558	560	547	575	726	923
Hong Kong	240	279	283	287	318	347
Japan	152	172	148	131	175	196
Taiwan	13	17	20	46	70	66
All other	16	13	17	18	23	32
Total	1,470	1,613	1,616	1,982	2,609	2,841

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

Table 4.--Macaroni, noodles, vermicelli, and similar alimentary pastes, containing egg or egg products: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Japan	6	1	24	235	387	564
Switzerland	8	100	24	145	136	225
Hong Kong	182	174	139	86	153	198
Italy	250	253	217	171	315	255
Canada	200	72	49	538	265	209
All other	8	8	6	19	74	44
Total	654	608	459	1,194	1,330	1,495
	Value (1,000 dollars)					
Japan	2	1	9	80	124	176
Switzerland	4	39	8	59	54	91
Hong Kong	55	56	41	24	47	63
Italy	51	58	50	41	69	58
Canada	33	34	14	105	52	47
All other	3	2	2	5	24	13
Total	148	190	124	314	370	448

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

Commodity	TSUS item
Nonalcoholic preparations of yeast extract (other than sauces) for flavoring or seasoning food----------	182.40

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Yeast extract products for flavoring foods are very minor items of trade. In the period 1963-68, U.S. imports of these products averaged $599,000 annually and supplied about 10 percent of U.S. consumption.

Comment

The articles considered herein are products other than sauces; they do not contain alcohol and are used for flavoring or seasoning foods, including soups, gravies, salad dressings, and sauces. These yeast extract preparations are generally in the form of a brown powder or paste composed of hydrolyzed protein, inorganic salts, and water. The bulk of the domestically produced and imported yeast extract preparations are used by commercial users such as soup manufacturers.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.40	Nonalcoholic preparations of yeast extract (other than sauces) for flavoring or seasoning food.	10% ad val.	8% ad val.	5% ad val.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). The rate of duty in effect prior to January 1, 1968 (10 percent ad valorem) had been in effect since July 1, 1963, and also reflected a concession granted by the United States under the GATT.

Annual data on consumption and production of preparations of yeast extract are not available. In 1963 manufacturers' shipments of yeast extracts, yeast, and other food yeast products amounted to 17.7 million pounds, valued at $5.0 million compared with shipments of 13.3 million pounds in 1958; only a small part of the total shipments consisted of yeast extracts. Annual production of food yeast products since 1963 has probably ranged between 18 and 23 million pounds. The increased production is principally the result of increased use of yeast as such (see the separate summary on yeast, items 437.47 and 437.48) and, to a lesser extent, to the increased use of yeast extracts by soup, sauce, and other food manufacturers. Fewer than 10 firms produce yeast extracts; for most, if not all, of these firms the sale of yeast extracts is small compared with their sales of other products.

Separate data on U.S. exports of preparations of yeast extract are not available; however, it is believed that exports of such products are negligible.

Annual U.S. imports of yeast extract products averaged 1.8 million pounds with a value of $599,000 in the period 1963-68 (see table). Annual imports in the immediately preceding 5-year period averaged 800,000 pounds, valued at $263,000. The United Kingdom, the Netherlands, and France have been the principal sources of imports in recent years.

Nonalcoholic preparations of yeast extract (other than sauces) for flavoring or seasoning food: U.S. imports for consumption, by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
United Kingdom	1,062	1,755	1,958	1,212	1,095	1,163
France	51	98	136	417	327	462
Netherlands	-	-	-	135	426	221
All other	50	15	2	46	85	68
Total	1,163	1,868	2,096	1,810	1,933	1,914
	Value (1,000 dollars)					
United Kingdom	337	560	635	402	372	360
France	17	33	50	160	128	208
Netherlands	-	-	-	50	146	73
All other	5	4	1	5	21	28
Total	359	597	686	617	667	669
	Unit value (per pound)					
United Kingdom	$0.32	$0.32	$0.32	$0.33	$0.34	$0.31
France	.33	.34	.36	.38	.39	.45
Netherlands	-	-	-	.37	.34	.33
All other	.10	.19	.40	.13	.25	.42
Average	.31	.32	.33	.34	.34	.35

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

Note.--Domestic shipments of yeast extracts and other food yeast products in 1963 amounted to 17.7 million pounds valued at 4.0 million dollars. The ratio of imports to production in 1963 was 6.8 percent. Exports are not separately reported but are believed to be negligible.

Commodity	TSUS item
Sauces:	
Thin soy	182.45
Other	182.46

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is a substantial net exporter of sauces; however, trade in sauces is very small in relation to domestic production. During 1963-68, U.S. exports of sauces averaged $5.8 million annually and imports averaged $2.3 million annually. U.S. production of sauces was valued at $468.2 million in 1963.

Description and uses

Sauces are preparations for flavoring such foods as soups, stews, meats, fish, vegetables, and desserts. They are often in liquid or semiliquid form but may also be of a firm consistency such as "hard" sauce, or they may be in the form of powders, tablets, and wafers to which liquid is added. The dehydrated sauces are often packaged with the vegetables, meats, or other foods with which they are used; for tariff purposes, such packaged sauces are separately dutiable articles.

The U.S. Supreme Court in the case of Bogle v. Magone, 152 U.S. 623, in considering the tariff status of anchovy and bloater paste used as a food or as an appetizer with a cracker, and not used as a condiment, stated as to sauces:

> The word "sauce," as commonly used, designates a condiment, generally but not always in liquid form, eaten as an addition to and together with a dish of food, to give it flavor and make it more palatable; and is not applied to anything which is eaten, alone or with a bit of bread, either for its own sake only, or to stimulate the appetite for other food to be eaten afterwards.

The characteristics and uses of the products claimed to be sauces, even where commercial designation has been at issue in the court cases, seems to have been an important criteria in identifying food preparations as sauces (see Julius Wile Sons & Co. v. United States, T.D. 49494).

The sauces included in this summary are substantially finished food preparations and not mere materials used in the manufacture of sauces; some complete sauces, however, are used sometimes in the making of other sauces.

The variety of sauces is almost unlimited and includes, in addition to the named thin soy sauce (item 182.45), such items as gravy mixes, tartar sauce, Worcestershire sauce, chutney, sweet and sour sauces for oriental-type meat and vegetable dishes, catsup, barbecue sauces, spaghetti sauces, chili sauce, mayonnaise, and many salad dressings. Thin soy sauce is produced by a rather involved process of fermentation or hydrolysis of soybeans. It is used particularly for flavoring oriental-type dishes and also as an ingredient or base for other sauces, including Worcestershire sauce and other steak sauces. Cooking sherry and cooking wine containing salt (about 1-1/2 percent salt in the usually marketed products), being unfit for beverage purposes, have been held to be sauces. Catsup (often spelled catchup or ketchup) is a thick sauce of tomatoes seasoned with vinegar, spices, and sugar. Chutney is a hot-tasting or spicy sauce made from various fruits and is ordinarily seasoned with chili, garlic, mustard, and vinegar.

There are various sauces made from fruit which are eaten with desserts or other food but fruit dishes such as applesauce and cranberry sauce, however, are not sauces as provided for by the tariff provisions covered here, but are classifiable as prepared or preserved fruits in subpart B, part 9, schedule 1 of the tariff schedules. Other sauces specifically provided for elsewhere in the tariff schedules include tomato sauce (item 141.65) and fish sauce (item 113.01). Thick soy "sauce," a mixture usually composed of about 98 percent molasses with the remainder of sugar, salt, and sometimes thin soy sauce, is not a sauce and is not included here. Available information indicates that there have been importations of thick soy sauce and that these products apparently have been classified as flavored molasses under item 155.75.

Standards of identity have been established by the Food and Drug Administration for catsup, mayonnaise, French dressing, and salad dressing. Imported and domestic products must conform to the standards in order to be labeled as such. Certain imported sauces that contain sugar are subject to additional duties based on their sugar content (see tariff treatment section).

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Sauces:			
182.45	Thin soy	12% ad val.	9.5% ad val.	6% ad val.
182.46	Other	15% ad val.	12% ad val.	7.5% ad val.

The above tabulation shows the column 1 rates of duty in effect from the effective date of the TSUS on August 31, 1963, to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

Imported sauces in chief value of manufactured sugar are subject to an additional duty of 0.53 cent per pound of the total sugar content (item 901.00, Appendix to the Tariff Schedules of the United States).

U.S. consumption, producers, and production

U.S. consumption of sauces has increased in recent years as a result of population growth and the increased popularity of more highly flavored foods. Annual data on U.S. production and consumption are available for some of the most important sauces, but not for all. Production of catsup averaged 909.0 million pounds annually during 1963-67, or about 40 percent larger than during 1958-62. Catsup production was valued at $119.4 million in 1963 and that of chili sauce at $9.4 million. The production of mayonnaise and salad dressings increased from 141.2 million gallons in 1961 to 174.7 million gallons in 1965 and averaged about 24 percent larger during 1961-65 than in the preceding 5-year period. The mayonnaise and salad dressing produced in 1963 was valued at $278.6 million. The production of sauces for meat (Worcestershire, soy sauce, and many others) amounted to 28.4 million gallons, valued at $60.8 million, in 1963, substantially larger than the 18.5 million gallons, valued at $33.3 million, produced in 1958.

Sauces are produced throughout the United States. In 1963, catsup was produced in 82 establishments, meat sauces in 74 establishments, and salad dressings and mayonnaise in 95 establishments. Most of the sauce producing firms also produce other products; however, the production of sauces is a major source of income for most of them.

U.S. exports

Total U.S. exports of sauces in the period 1963-68 ranged irregularly from 22.2 million pounds, valued at $6.1 million, in 1968 to 30.2 million pounds, valued at $6.0 million in 1965 (table 1). Exports of catsup and chili sauce, which had been increasing irregularly, reached a peak of 19.1 million pounds, valued at $3.1 million in 1965; exports declined to 9.0 million pounds, valued at $1.8 million in 1968 (table 2). The principal destinations of exported catsup and chili sauce in recent years have been Canada, Sweden, Malaysia, and Hong Kong. Exports of mayonnaise and salad dressing increased from 6.4 million pounds, valued at $1.6 million, in 1963 to 11.1 million pounds, valued at $2.9 million, in 1968. Mexico, the Bahamas, Nansei and Nanpo Islands, and Japan have been the principal destinations for exported mayonnaise and salad dressings in recent years.

U.S. imports

U.S. imports of thin soy sauce, which have been increasing irregularly, averaged 10.0 million pounds, valued at $1.3 million, annually during 1963-68, or about double those of the preceding 5-year period. Japan and Hong Kong have been the principal sources of imported thin soy sauce in recent years (table 3).

Imports of sauces other than thin soy sauce increased from 3.1 million pounds, valued at $612,000 in 1963, to 7.2 million pounds, valued at $1.7 million in 1968 (table 4). In that period they averaged 5.0 million pounds, valued at $986,000 annually, or about 50 percent larger than those in 1958-62. Japan, Spain, Mexico, Hong Kong, and India have been the principal import sources in recent years. Imports from Japan have consisted of Worcestershire sauce, barbecue sauce, and various oriental-type sauces. Imports from India have consisted almost entirely of chutney. Those from Hong Kong have consisted of various fruit sauces. Imports from Spain have been almost entirely of cooking wines, principally in bulk shipments. Sauces imported from the United Kingdom in recent years have been principally Worcestershire sauce and various fruit sauces.

Table 1.--Sauces: U.S. imports for consumption and exports of domestic merchandise, 1963-68

Year	Imports			Exports
	Thin soy	Other sauces	Total	
	Quantity (1,000 pounds)			
1963	7,682	3,054	10,736	26,217
1964	9,503	3,544	13,047	29,642
1965	10,300	3,806	14,106	30,167
1966	9,520	6,111	15,631	26,429
1967	10,030	6,215	16,245	23,308
1968	12,699	7,159	19,858	22,183
	Value (1,000 dollars)			
1963	1,099	612	1,711	5,310
1964	1,264	709	1,973	5,726
1965	1,291	756	2,047	5,980
1966	1,278	998	2,276	6,035
1967	1,384	1,123	2,507	5,988
1968	1,495	1,723	3,218	6,056

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

Table 2.--Sauces: U.S. exports of domestic merchandise, by type, 1963-68

Year	Catsup and chili sauce	Mayonnaise and salad dressing	Other sauces	Total
	Quantity (1,000 pounds)			
1963	15,036	6,446	4,735	26,217
1964	16,445	7,743	5,454	29,642
1965	19,091	8,090	2,986	30,167
1966	14,906	9,769	1,754	26,429
1967	10,981	10,330	1,997	23,308
1968	8,959	11,149	2,075	22,183
	Value (1,000 dollars)			
1963	2,440	1,690	1,180	5,310
1964	2,543	1,911	1,272	5,726
1965	3,069	2,140	771	5,980
1966	2,662	2,573	800	6,035
1967	2,221	2,757	1,010	5,988
1968	1,821	2,905	1,330	6,056

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

Table 3.--Thin soy sauce: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Japan	6,312	7,854	8,843	8,259	8,429	10,987
Hong Kong	1,361	1,630	1,456	1,238	1,513	1,642
All other	9	19	1	23	88	70
Total	7,682	9,503	10,300	9,520	10,030	12,699
	Value (1,000 dollars)					
Japan	935	1,063	1,116	1,123	1,183	1,287
Hong Kong	163	198	175	152	186	199
All other	1	3	1/	3	16	9
Total	1,099	1,264	1,291	1,278	1,385	1,495
	Unit value (per pound)					
Japan	$0.15	$0.14	$0.13	$0.14	$0.14	$0.12
Hong Kong	.12	.12	.12	.12	.12	.12
All other	.13	.16	.44	.14	.17	.12
Average	.14	.13	.13	.13	.14	.12

1/ Less than $500.

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

Table 4.--Sauces, other than thin soy sauce: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	43	90	93	120	235	1,408
Spain	765	1,185	1,316	2,130	2,031	2,325
Japan	620	535	688	1,005	1,009	751
Mexico	67	74	161	1,457	1,362	565
Hong Kong	824	952	697	550	736	807
United Kingdom	200	178	163	220	174	357
India	344	338	426	359	427	410
All other	191	192	262	270	241	536
Total	3,054	3,544	3,806	6,111	6,215	7,159
	Value (1,000 dollars)					
Canada	19	20	21	25	117	597
Spain	59	100	112	172	178	216
Japan	118	127	151	213	242	181
Mexico	29	37	57	177	174	164
Hong Kong	167	163	122	99	124	145
United Kingdom	50	86	65	75	65	129
India	93	103	138	114	112	116
All other	77	73	90	123	111	175
Total	612	709	756	998	1,123	1,723
	Unit value (per pound)					
Canada	$0.43	$0.23	$0.22	$0.20	$0.50	$0.42
Spain	.08	.08	.09	.08	.09	.09
Japan	.19	.24	.22	.21	.24	.24
Mexico	.43	.50	.35	.12	.13	.29
Hong Kong	.20	.17	.17	.18	.17	.18
United Kingdom	.25	.48	.40	.34	.37	.36
India	.27	.30	.32	.32	.26	.28
All other	.40	.38	.34	.45	.46	.32
Average	.43	.23	.22	.20	.18	.24

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

Commodity	TSUS item
Seaweeds and other marine plants prepared for use as human food or as an ingredient in such food	182.48
Seaweeds, crude, ground or pulverized	192.05
Carrageenin	192.07

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The U.S. seaweed processing industries consume virtually all of the raw seaweed harvested in the United States and also sizable quantities of imported crude seaweed. Imports supply virtually all of the U.S. consumption of seaweed prepared as food and supply a large share of the U.S. consumption of carrageenin. Exports of crude seaweed are probably nil.

Description and uses

The principal species of seaweed of commercial importance and the products derived from them are listed below. Those products not covered by this summary are identified by an asterisk following the TSUS number.

Principal seaweeds under TSUS 192.05 1/	Further processed products	
	TSUS item number	Description
Carageen	192.07	Carrageenin
Dulse	182.48	Edible dulse
Furcellaria	493.68*	Furcelleran
Gelidium	182.48	Edible gelidium
	455.02*	Agar agar
Kelp	182.48	Edible kelp
	425.09*	Ammonium alginate
	426.88*	Sodium alginate
	480.80*	Kelp ash
Laver	182.48	Edible laver

1/ If crude, ground or pulverized and not prepared for human food or as an ingredient in human food.

The products included under item 182.48 are seaweeds and other marine plants prepared for use as human food or as an ingredient in such food. Gelidium, dulse, and laver are harvested commercially in waters along the coasts of Spain, Portugal, western Mexico, and Japan; dulse is harvested commercially along northern European shores and around the Canadian Maritime Provinces. The principal use for laver is in oriental-type foods. Many other seaweeds--mostly similar to laver--and other marine plants are also used in oriental-type foods. Dulse (a variety of laver) is a food in Europe, the Maritime Provinces, and to a small extent along the New England Coast. Kelp is used for food in oriental dishes on a minor scale.

Of the seaweeds which are processed, kelp, gelidium, and carrageen are important commercially. Kelp abounds throughout the world in various forms. The type utilized most in the United States is harvested off the coast of Southern California and the adjacent coast of Mexico; it is processed into the salts--ammonium alginate (item 425.09) and sodium alginate (item 426.88). Most of the remaining kelp production is dried and ground into kelp meal (TSUS 192.05), which is principally used as an ingredient in animal feeds and in fertilizers. Small quantities of kelp also are used in special-diet foods for humans (TSUS 182.48). In some areas kelp is burned to produce kelp ash (TSUS 480.80), which consists of soda and potash.

Gelidium, in addition to being used directly as human food (TSUS 182.48), is utilized in crude, ground, or pulverized form as a source of agar agar (TSUS 455.02).

Carrageen, or Irish moss, is a bush-type seaweed ranging from yellowish green to blackish purple in color. It is found in abundant quantities in rocky areas along the North Atlantic Coast of the United States and Canada. It also grows off the coast of Ireland, the United Kingdom, and France. The moss is pulled from rocks with a hand rake or is gathered from the beach, and then washed and dried. It takes about 4 pounds of wet moss to make one pound of dry moss. Most of the dried carrageen is used for the extraction of carrageenin. In addition, some pulverized carrageen is used as a clarifying agent in breweries.

Carrageenin (TSUS 192.07), the thickening and gelling extract derived from carrageen and related seaweeds, has about the same consistency as mucilage. The three most important uses of carrageenin are as a stabilizer in chocolate milk to help prevent the cocoa or chocolate particles from settling, a stabilizer in ice cream, and an ingredient in tooth paste. Carrageenin is also used in processed cheese, sherbets, icings, pie-fillings, salad dressings, fruit sirups, and candy, as well as in the manufacture of various pharmaceuticals, oil emulsions, insect sprays, and water-base inks. Carrageenin, sodium alginate made from kelp, and agar agar made from gelidium

compete with each other as well as with the water-soluble gums from trees and seeds provided for in items 188.36 and 188.38.

Furcelleran (item 493.68 pt.) is a seaweed product of minor significance. This item, produced abroad from a seaweed that grows in the Baltic Sea, has unique chemical characteristics similar to carrageenin.

Seaweeds are also eaten directly by farm animals grazing along the shoreline--particularly in Europe. The animals prefer the same types of seaweed used in the production of human food (dulse, laver, and gelidium).

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.48	Seaweeds and other marine plants prepared for use as human food or an ingredient in such food.	Free	1/	1/
192.05	Seaweeds, crude, ground or pulverized.	Free	1/	1/
192.07	Carrageenin----------	10% ad val.	8% ad val.	5% ad val.

1/ Not affected by the trade conference.

The tabulation above shows the column 1 rates in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the 1964-67 trade conference under the General Agreement on Tariffs and Trade (GATT). Only the second (that in effect during 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates).

When the TSUS became effective on August 31, 1963, seaweeds for edible purposes were specially provided for in TSUS item 182.48, "seaweeds and other marine plants prepared for use as human food or as an ingredient in such food," and were duty free. Carrageen, crude,

ground or pulverized was specially provided for free of duty under TSUS item 192.05. Other seaweeds in crude form were free of duty under TSUS item 193.25, as "vegetable substances, crude, not specially provided for" but if they were ground, powdered, or pulverized, they were classifiable, if chiefly used as fertilizers or ingredients in the manufacture of fertilizers, free of duty under TSUS item 480.80 or otherwise as animal feed under TSUS item 184.75 dutiable at that time at 10 percent ad valorem. Effective December 7, 1965, under Public Law No. 89-241, the language of TSUS item 192.05 was changed from "carrageen, crude, ground, or pulverized" to "seaweed, crude, ground or pulverized." Thus, all seaweeds not prepared for human food or as an ingredient in human food are now duty free under TSUS item 192.05.

U.S. consumption

Statistics on U.S. consumption of seaweeds and their derivatives are not available. However, it is believed that consumption of seaweeds increased slightly during recent years, reflecting increased usage of the products manufactured from these seaweeds.

Domestic consumption of edible seaweeds is small and is believed to be supplied almost entirely by imports.

Estimated U.S. consumption of kelp is about 100,000 to 125,000 tons annually (wet weight). Practically all of it is used in the production of sodium alginate and ammonium alginate. Most of the remainder is dried and ground (kelp meal) and used as an ingredient in feed or as a fertilizer. There is no known domestic production of kelp ash. Consumption of kelp in the United States is believed to be increasing slightly. Imports supply a negligible share of total U.S. consumption.

Statistics on consumption of gelidium are not available. One commercial firm produces agar agar from gelidium.

Most of the carrageen consumed in the United States is used to produce carrageenin, and the remainder is ground and utilized as powdered carrageen. Estimated U.S. consumption of carrageen increased from 7 million pounds in 1963 to 13 million pounds in 1968. Domestic output normally supplies only a small part of domestic consumption (table 1).

Based on imports and estimated production of the raw material, carrageen, consumption of carrageenin has increased significantly in recent years. It is supplied predominately by domestic production.

U.S. producers and production

Two of the seaweed types discussed in this summary--carrageen and kelp--are harvested in significant quantities within the territorial waters of the United States. Production of raw carrageen has been variable during recent years (table 1), whereas production of raw kelp is believed to have been steady or somewhat upward.

Data on domestic production of edible seaweeds for use as human food are not available, but any such production is believed to be negligible.

U.S. vessels harvest kelp off the California and Mexican coasts. These boats are specially equipped to cut off the kelp a few feet below the ocean surface. Within a few months the kelp plant replaces that which has been cut. The harvesting operation is quite efficient and employs only a few boats and a small number of employees. The industry estimates that the quantity of kelp harvested ranges from 100,000 to 125,000 tons (wet weight) annually.

There are three firms in California which process kelp products. One firm in California produces agar agar from gelidium. It uses dried gelidium imported from Mexico as well as gelidium-type seaweed imported from Latin America and the Far East.

Between 1,000 and 1,500 individuals harvest carrageen in the United States. For many the work provides supplemental income, especially to students on vacation, as the seaweed is harvested between late May and mid-October. Harvesting of carrageen is concentrated along the Maine and Massachusetts coasts, the annual harvest in Maine being the greater.

During 1963-68, total U.S. production of carrageen averaged about 1.4 million pounds annually (table 1). Processing and collecting facilities have been improved in recent years, but as yet there has been only slight accompanying increases in production.

There are two firms in the United States which manufacture carrageenin from its raw material, carrageen. Each firm has one factory located on the Maine coast. The larger carrageenin firm--a consolidation of two prior companies--produces about 80 to 90 percent of the U.S. output. The small plant is operated as a subsidiary of a national food company to produce carrageenin for use as a stabilizer in processed foods and in other products manufactured by the parent company. Data on production of carrageenin is not available.

It is probable that some seaweeds other than those named herein are harvested from U.S. waters for use as animal feed or fertilizer, but they are of slight commercial importance.

U.S. exports and imports

Exports of seaweeds and the products derived from them are not separately reported; however, it is believed that exports of seaweed and carrageenin are negligible.

Carrageen import statistics have been reported separately from other crude seaweeds since 1965. Imports apparently reached a high in 1968 of 11.2 million pounds, valued at $1.5 million (table 1). Canada supplied 98 percent of the imports. The remainder was reported from the Netherlands and Norway.

In the 5 years that import data on carrageenin has been reported separately, the high year was 1966 with entries of 0.4 million pounds, valued at $0.5 million (table 2). Almost all imports were from Denmark and the United Kingdom.

Imports of crude, ground or pulverized seaweed other than carrageen were at an annual average of about 10 million pounds and 1.1 million dollars in 1967 and 1968 (table 3). Imports consisted of gelidium and other agar agar seaweeds from Latin America, France, and the Far East; carrageenin-type seaweeds from Spain and Portugal; and kelp from Norway, Canada, and the Union of South Africa.

In 1968 imports of seaweed prepared for human food amounted to 0.7 million pounds, valued at $0.7 million (table 4). Imports consisted mainly of dried laver and other seaweeds from Japan and the Korean Republic. Some imports from these 2 countries are in cans or bottles--not dried. Imports from Canada are believed to consist of packaged, dried dulse; imports from Denmark probably consist mainly of seaweed extract powder.

Table 1.--Carrageen: U.S. production, imports for consumption, and apparent consumption, 1963-68

Year	Production	Imports 1/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity (1,000 pounds)			
1963	1,742	5,377	7,119	75.5
1964	1,124	7,505	8,629	87.0
1965	1,161	6,942	8,103	85.7
1966	1,025	6,843	7,868	87.0
1967	1,265	8,844	10,109	87.5
1968	1,825	11,208	13,033	86.0
	Value (1,000 dollars) 2/			
1963	129	514	3/	3/
1964	79	818	3/	3/
1965	86	747	3/	3/
1966	74	762	3/	3/
1967	93	1,211	3/	3/
1968	4/	1,529	3/	3/
	Unit value (cents per pound)			
1963	7.4	9.6	3/	3/
1964	7.0	10.9	3/	3/
1965	7.4	10.8	3/	3/
1966	7.2	11.1	3/	3/
1967	7.4	13.7	3/	3/
1968	4/	13.6	3/	3/

1/ Quantity and value are estimated prior to 1964. May include some imports of seaweed other than carrageen in 1965.

2/ Value of production and imports are not comparable. Production value is for wet seaweed whereas import value is for dried seaweed.

3/ Not meaningful.

4/ Not available.

Source: Compiled or estimated from official statistics of the U.S. Department of the Interior and the U.S. Department of Commerce.

Note.--Production data for carrageenin, kelp, and gelidium are not available. Exports of seaweeds and carrageenin are not separately reported. About 98 percent of the imports entered from Canada.

December 1969
1:14

Table 2.--Carrageenin: U.S. imports for consumption, by principal sources, September-December 1963 and 1964-68

Year	Denmark	United Kingdom	All other	Total
	Quantity (1,000 pounds)			
1963 (September-December)	82	-	-	82
1964	304	37	-	341
1965	336	44	15	395
1966	369	49	7	425
1967	157	52	34	243
1968	243	40	47	330
	Value (1,000 dollars)			
1963 (September-December)	95	-	-	95
1964	347	52	-	399
1965	394	60	15	469
1966	465	73	8	546
1967	219	80	53	352
1968	366	54	61	481
	Unit value (per pound)			
1963 (September-December)	$1.16	-	-	$1.16
1964	1.41	$1.08	-	1.17
1965	1.17	1.36	$1.00	1.19
1966	1.26	1.49	1.14	1.28
1967	1.39	1.54	1.56	1.45
1968	1.51	1.35	1.30	1.46

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

Note.--Imports of carrageenin were not separately reported before Aug. 31, 1963.

Table 3.--Crude, ground or pulverized seaweed, other than carrageen: U.S. imports for consumption, by principal sources, 1967-68 1/

Source	Quantity		Value		Unit value	
	1967	1968	1967	1968	1967	1968
	1,000 pounds	1,000 pounds	1,000 dollars	1,000 dollars	Cents per pound	Cents per pound
Portugal	524	583	165	174	31.5	29.8
Chile	1,376	1,033	189	120	13.7	11.6
Mexico	1,144	819	157	118	13.7	14.4
Philippine Republic	877	1,077	68	100	7.8	9.3
Norway	1,276	2,693	41	99	3.2	3.7
Canada	146	473	23	58	15.8	12.3
Peru	2,355	521	307	45	13.0	8.6
Spain	1,411	-	193	-	13.7	-
All other	1,918	1,063	200	150	10.4	14.1
Total	11,027	8,262	1,343	864	12.2	10.5

1/ Not separately reported until Dec. 7, 1965. In 1966 imports amounted to 10,431 thousand pounds, valued at 877 thousand dollars.

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

Table 4.--Seaweeds and other marine plants, prepared for use as human food or as an ingredient in such food: U.S. imports for consumption, by principal sources, September-December 1963 and 1964-68

Year	Japan	Republic of Korea	Canada	Denmark	All other	Total imports
	Quantity (1,000 pounds)					
1963 1/	123	16	88	8	2/	235
1964	284	49	19	-	161	513
1965	267	48	15	2	33	365
1966	232	35	9	7	55	338
1967	294	130	15	5	26	470
1968	270	62	169	2/	190	691
	Value (1,000 dollars)					
1963 1/	158	19	15	9	3/	201
1964	408	78	8	-	10	504
1965	480	85	9	2	5	581
1966	413	72	6	7	6	504
1967	490	185	9	5	7	696
1968	510	173	36	1	26	746
	Unit value 4/					
1963 1/	$1.30	$1.13	$0.17	$1.18	$1.07	$0.86
1964	1.44	1.59	.45	-	.05	.98
1965	1.80	1.77	.57	1.04	.18	1.59
1966	1.78	2.08	.64	1.06	.12	1.49
1967	1.67	1.42	.60	1.14	.24	1.48
1968	1.89	2.81	.21	1.57	.14	1.08

1/ Last 4 months only.
2/ Less than 500 pounds.
3/ Less than $500.
4/ Calculated on unrounded figures.

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

Commodity	TSUS item
Soups, soup rolls, soup tablets, and other soup preparations:	
Containing oysters or oyster juice	182.50
Other	182.52

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is a substantial net exporter of soups; its foreign trade in soup, however, is small in relation to domestic production of this important food product. In the period 1963-68, imports increased from 1.0 million pounds, valued at $690,000 in 1963 to 6.1 million pounds, valued at $3.1 million in 1968; exports in that period averaged 19.3 million pounds, valued at $4.3 million annually.

Description and uses

Soups are foods made by cooking meat, vegetables, fish, and other ingredients in a liquid such as water or milk. There are many varieties of soup such as chicken noodle, tomato, vegetable, clam chowder, and dozens of other well-known or specialty soups. Canned soups are usually in concentrated liquid form but may also be prepared in ready-to-eat form. In addition, some soups are in a dehydrated form. This summary covers all forms of soup and soup preparations including canned condensed, frozen, and ready-to-eat, as well as dehydrated powders, tablets, and cubes; however, stews (with the exception of oyster stew which is classifiable in item 182.50) are considered to be edible preparations classifiable in item 182.95. Clam juice and oyster juice in airtight containers are separately provided for in items 114.50 and 114.55.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Soups, soup rolls, soup tablets, and other soup preparations:			
182.50	Containing oysters or oyster juice.	6¢ per lb. 1/	4.5¢ per lb. 1/	3¢ per lb. 1/
182.52	Other	14% ad val.	11% ad val.	7% ad val.

1/ Including weight of immediate container.

The tabulation above shows the column 1 rates of duty in effect from the effective date of the TSUS on August 31, 1963, to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

The ad valorem equivalent of the 5.4-cent-per-pound rate of duty on soups containing oysters or oyster juice averaged 20.4 percent in 1968 and ranged from 8.5 percent to 22.3 percent on imports from individual countries.

U.S. consumption, producers, and production

For 1963 the Census of Manufactures reported production of canned seafood soups, stews, and chowders valued at $21.0 million. The value of other canned soups, slightly overstated because it included some production of canned specialty products, was $440.1 million. Shipments of dehydrated soup mixes, the production of which increased rapidly in the early 1960's, were valued at $44.5 million in 1963; more recently, however, some firms have stopped domestic production of dried soups, either withdrawing from the market altogether or relying on imports for their supplies. The production of

frozen soups has increased in recent years but separate data on production are not available.

Annual data on the total production and consumption of soups and soup preparations since 1963 are not available. It is known, however, that the production and consumption of commercial soup products have increased with population growth.

More than 100 establishments, located throughout the country, produce soups. The bulk of the output, however, is produced by a few concerns which market well-known brands. For most producers, the production of soup is an important, but not sole, source of income.

U.S. exports and imports

The United States is a substantial net exporter of soup (table 1). Exports in 1965-68, the only years for which complete data are available, averaged 20.7 million pounds, valued at $5.0 million annually. Exports of canned soup averaged 17.7 million pounds, valued at $3.5 million annually during 1963-68. The principal destinations for U.S. exports of soup in recent years have been Canada, Panama, the Dominican Republic, Hong Kong, Mexico, and Japan (table 2).

U.S. imports of soups containing oysters or oyster juice were not separately reported prior to September 1963; imports of such soups in 1964-67 averaged 36,000 pounds, valued at $23,000 annually and came principally from Hong Kong and Japan. Imports of other soups during the period 1963-68 increased from 1.0 million pounds, valued at $690,000 in 1963 to 5.9 million pounds, valued at $3.1 million in 1968 (table 3). Most of the increase in imports in 1966 and 1967 consisted of dried soup mixes from Switzerland. Most of the large imports from Canada in 1968 (table 3) consisted of canned concentrated soups. The principal sources of imported soups in recent years were Switzerland, Canada, Japan, West Germany, Israel, and France.

Table 1.--Soups and soup preparations: U.S. imports for consumption and exports of domestic merchandise, 1963-68

Year	Imports	Exports 1/
	Quantity (1,000 pounds)	
1963	1,014	15,045
1964	1,134	17,649
1965	1,208	19,383
1966	3,240	21,869
1967	3,184	21,115
1968	6,083	20,462
	Value (1,000 dollars)	
1963	690	2,792
1964	746	3,219
1965	866	4,749
1966	2,459	5,184
1967	2,689	5,193
1968	3,148	4,896

1/ Data for 1963 and 1964 do not include dehydrated soups or oyster stew.

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

Table 2.--Soups and soup preparations: U.S. exports of domestic merchandise, by principal destinations, 1963-68

Destination	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	1,649	2,212	1,949	2,325	2,294	2,014
Panama	1,363	1,227	1,368	1,208	1,017	950
Philippine Republic	685	783	812	1,185	942	1,895
Hong Kong	1,284	1,593	1,553	1,498	468	1,723
Mexico	1,257	1,618	1,807	2,300	410	2,481
Dominican Republic	589	2,582	2,332	2,638	1,858	1,913
Netherlands Antilles	823	855	781	991	803	1,184
Japan	780	803	1,330	2,182	1,538	1,504
United Kingdom	510	387	560	574	608	488
Malaysia	1,295	1,657	1,751	543	525	434
Venezuela	1,007	35	140	-	39	15
All other	3,803	3,897	5,000	6,425	10,613	5,861
Total	15,045	17,649	19,383	21,869	21,115	20,462
	Value (1,000 dollars)					
Canada	289	377	599	662	616	527
Panama	262	237	487	422	480	506
Philippine Republic	140	169	197	239	207	428
Hong Kong	235	290	326	342	468	427
Mexico	213	266	308	352	410	388
Dominican Republic	106	450	549	630	426	365
Netherlands Antilles	153	156	208	274	245	322
Japan	139	146	271	443	346	321
United Kingdom	98	84	115	122	154	113
Malaysia	225	285	338	114	108	78
Venezuela	205	7	46	-	37	4
All other	727	752	1,305	1,584	1,696	1,417
Total	2,792	3,219	4,749	5,184	5,193	4,896

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

Table 3.--Soups and soup preparations, except those containing oysters or oyster juice: U.S. imports for consumption, by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Switzerland	351	406	713	2,615	2,240	1,916
Canada	8	19	19	32	179	3,099
Japan	92	121	105	95	147	198
Israel	82	60	42	71	91	175
West Germany	114	119	127	155	154	174
France	96	107	64	82	65	65
All other	271	274	109	148	264	290
Total	1,014	1,106	1,179	3,198	3,140	5,917
	Value (1,000 dollars)					
Switzerland	344	374	512	2,023	1,977	1,784
Canada	14	26	26	46	145	643
Japan	77	98	90	89	141	203
Israel	61	50	38	62	74	141
West Germany	79	75	86	99	117	126
France	41	37	35	35	28	29
All other	74	67	59	81	179	178
Total	690	727	846	2,435	2,661	3,104

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

Commodity	TSUS item
Vinegar:	
Malt	182.55
Other	182.58

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. producers supply virtually all of the domestic consumption of vinegar; imports have been insignificant ($140,000 in 1968). U.S. exports ($457,000 in 1968) have been small compared with production.

Description and uses

Vinegar is the product resulting from the acetification of certain alcoholic solutions. Inasmuch as the acetification reaction does not go to completion, vinegar, although principally a dilute solution of acetic acid, contains small amounts of alcohol and certain minor products of fermentation such as aldehydes, esters, and glycerol. The chemical product, acetic acid (see summary on item 425.70), is made by destructive distillation of hardwood or by oxidation of acetaldehyde.

Vinegar is produced from a wide variety of raw materials. Consumption in the United States is largely limited to cider vinegar (a fermented vinegar) and distilled vinegar (also known as spirit, grain, or white vinegar). On a quantity basis, other vinegars such as wine, malt, and rice vinegar are of minor importance in the United States. Cider vinegar is the product of controlled fermentation of apple cider (see the summary on item 165.15) with subsequent acetification by oxidative enzymes produced by the acetic acid bacteria. It is yellow or brown in color and has an odor resembling apples. Distilled vinegar, made by acetification of diluted distilled alcohol, is nearly colorless and does not have the characteristic flavor and odor of fruit or malt vinegars. Malt vinegar, made from barley, is dark amber in color and has a distinctive malt flavor. Wine vinegar is light yellow or red, depending on whether it is made from white or red wine; it has a particularly agreeable aroma and taste and is considered the finest vinegar for table use. Rice vinegar is lower in acetic acid content than other vinegars and is used as a sauce with oriental-type foods.

Vinegar is primarily consumed as a condiment and is the manufacture of pickles, tomato catsup, and various sauces.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Vinegar:			
182.55	Malt	1.2¢ per proof gal.	0.7¢ per proof gal.	Free
182.58	Other	4¢ per proof gal.	3.5¢ per proof gal. 1/	3¢ per proof gal. 2/

1/ The rate of duty is being reduced in two stages; the first stage of the reduced rate (3.5 cents per proof gallon) is in effect from Jan. 1, 1968 through 1969.

2/ The full reduction becomes effective Jan. 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). The rates in effect prior to January 1, 1968 also reflected concessions granted by the United States under the GATT; the rate for malt vinegar had been in effect since July 1, 1963, and that for other vinegars, since May 30, 1950. The average ad valorem equivalents of the duties on malt vinegar and other vinegars were 3.2 and 3.5 percent, respectively, based on the imports in 1968.

For tariff purposes, the standard of proof of vinegar is 4 percent by weight of acetic acid.

U.S. consumption, producers, and production

Virtually all U.S. consumption is supplied by domestic production. U.S. production amounted to 129 million gallons (valued at $43 million) in 1963, about 40 percent larger than in 1958. Although the output of both fermented (principally cider) and distilled vinegars has increased in recent years, the share of the total supplied by the fermented type has become larger. In 1963 the production of fermented vinegar accounted for 55 percent of the total, whereas in 1958 it comprised about half, and in 1954, 40 percent of the output. Domestic production of wine vinegar has been small compared to that of cider vinegar; the output of malt and rice vinegar has been negligible or nil for many years.

Some 140 establishments produce vinegar or cider as their primary products. Many of these are affiliated with concerns that have interests in a number of enterprises. The bulk of the vinegar and cider is produced in Michigan, New York, Virginia, California, and the New England States.

U.S. exports and imports

The United States is a net exporter of vinegar. In the period 1963-68 annual exports ranged from 349,000 to 498,000 gallons and averaged 430,000 gallons (see table). Principal markets have been Latin America, Canada, and Saudi Arabia.

The bulk of the imports of vinegar into the United States in recent years has consisted of specialty vinegars, most of which have not been directly competitive with domestic vinegars. In the period 1963-68, annual U.S. imports of malt vinegar ranged from 4,000 to 83,000 gallons and averaged 42,000 gallons or about one-third smaller than average annual imports in 1958-62. Virtually all imports in recent years were from Canada, Italy, Hong Kong, and the United Kingdom. Average annual imports of vinegar other than malt vinegar in 1963-68, at 107,000 gallons, were about the same level as those in 1958-62. The bulk of the imports in recent years consisted of rice vinegar from Japan and wine vinegar from Italy and France. The combined imports of malt and other vinegar have been negligible compared with domestic production; in 1963 imports were equivalent to less than 1 percent of output.

Vinegar: U.S. imports for consumption, by kinds, and exports of domestic merchandise, 1963-68

Year	Imports			Exports
	Malt vinegar	Other vinegar	Total	
	Quantity (1,000 proof gallons)			
1963	83	109	192	422
1964	47	110	157	423
1965	46	105	151	349
1966	4	106	110	476
1967	28	86	114	498
1968	44	128	172	410
	Value (1,000 dollars)			
1963	19	96	115	396
1964	10	100	110	467
1965	14	86	100	378
1966	3	96	99	476
1967	5	89	94	457
1968	12	128	140	457

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

Note.--Shipments of vinegar by U.S. producers in 1963 amounted to 129 million gallons, valued at $43 million.

Commodity	TSUS item
Wild rice, crude or processed	182.70

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Wild rice is a gourmet food produced principally in the United States and Canada. The United States is the world's largest producer and imports a large part of the Canadian crop. Annual U.S. imports of wild rice ranged from $168,000 to $968,000 in the period 1963-68 and supplied from 8 percent to 31 percent of total U.S. consumption in this period.

Description and uses

Wild rice (Zizania aquatica) is not a true rice, but an annual marsh grass which grows wild in shallow, fresh-water lakes and streams east from Manitoba to the Atlantic Coast and south to Florida. Two or more harvests are necessary since the grains ripen unevenly and must be garnered just before becoming fully ripe. The grains fall into the water when ripe and must be harvested prior to that stage. Harvesting is from boats or canoes. The stalks of the plant are bent over the boat and hit with sticks so that the grain falls into the boat. The method of harvesting and difficulty of timing allows most of the otherwise available grain to fall into the water and provide seed for the following crop as well as feed for migrating water fowl.

The wild rice kernels are one-half inch to one inch in length and are enclosed in a firm hull. When ripe, the kernels are soft and rubbery, and greenish brown in color. Wild rice must be dried soon after it is harvested to prevent spoilage. The dried kernels are brittle and dark brown or black in color. For human food, the wild rice is processed--dried, roasted or parched, and dehulled. Parching loosens the hulls and gives the grain a roasted flavor. About 2-1/2 pounds of the damp kernels, as harvested, are required to produce 1 pound of dry, hulled, parched grain.

Wild rice is used principally in the stuffing for fowl or as a separate dish served with meat; it is used alone or in mixtures with brown rice. Other minor uses are as a breakfast cereal and in pancake mixes; it is usually a specialty dish or delicacy.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1968) of crude or processed wild rice (TSUS item 182.70) are as follows:

Rate prior to Jan. 1, 1968----------	5% ad val.
First stage, effective Jan. 1, 1968----------	4% ad val.
Second stage, effective Jan. 1, 1970----------	3% ad val.
Final stage, effective Jan. 1, 1972----------	2.5% ad val.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT).

Item 182.70 was established by Public Law No. 89-241, effective December 7, 1965; the 5 percent rate of duty which that law established was the same rate as that applied to wild rice before the TSUS became effective on August 31, 1963, and reflected a GATT concession effective May 22, 1948. Before the TSUS, wild rice was classified under paragraph 1558 of the previous schedules of the Tariff Act of 1930 as a raw or unmanufactured article not specially provided for (C.D. 751, 1943). Following establishment of the TSUS on August 31, 1963, it was administratively determined that wild rice was classified under TSUS item 130.55 as brown rice (T.D. 56124(9)) with a duty of 1.5 cents per pound, equivalent to 0.8 percent ad valorem in 1964. Establishment of the 5 percent rate of duty on December 7, 1965 under the new provision, item 182.70, restored the duty treatment of wild rice to that applicable before the establishment of the TSUS.

U.S. consumption

U.S. consumption of wild rice varies widely year to year with fluctuations in supply and price. In the period 1963-68, apparent annual consumption of processed wild rice ranged from 0.4 million pounds to 1.5 million pounds. Retail prices have ranged from $2.50 to over $5.00 per pound in recent years. A large part of the wild rice consumed is mixed with brown rice and sold at lower prices than would be possible for wild rice alone, allowing the packer to stretch the limited supply of wild rice over a greater sales volume.

U.S. producers and production

Virtually all of the wild rice harvested in the United States is produced on natural stands in northern Minnesota. Harvesting there is regulated by the State Conservation Department and all harvesters

must be licensed. In the period 1963-68, an annual average of 12,000 wild rice harvester licenses were issued while the number of wild rice dealer licenses issued ranged from 200 to 356. Most of the harvesting is done by Indians. Small amounts are also harvested in Wisconsin and Michigan. Several attempts have been made to domesticate the crop, but thus far all attempts have failed.

U.S. production of wild rice fluctuates widely from year to year with changes in weather conditions. In 1963-68, estimated annual production ranged from 370,000 pounds to 1.3 million pounds (processed weight). The price received by wild rice harvesters has ranged from 20 to 90 cents per pound of unprocessed rice in recent years, with the average being about 35 cents per pound.

The number of processors of wild rice is not known, but is believed to be small. These small plants, located principally in Minnesota, operate seasonally for a few weeks in the fall during the harvest. Wild rice is the only product produced by most of these processors.

U.S. exports and imports

U.S. exports of wild rice are not separately reported but are believed to be negligible. Annual U.S. imports of wild rice from Canada, the only foreign supplier, ranged from 53,000 pounds, valued at $258,000, to 449,000 pounds, valued at $968,000 in the period 1963-68. Approximately 70 percent of the world supply of wild rice is produced in the United States and the remainder in Canada. Imports depend more on the size of the domestic crop and the availability of supplies in Canada than on price.

Most of the wild rice imported into the United States enters in bulk form, usually following drying, roasting, and grading. Some enters in retail packages of a few ounces, and some is imported in the green or unprocessed form.

Wild rice: U.S. production, imports for consumption, and apparent consumption, 1963-68

Year	Production	Imports 1/		Apparent consumption	Ratio of imports to consumption
		Quantity	Value		
	1,000 pounds	1,000 pounds	1,000 dollars	1,000 pounds	Percent
1963	1,286	119	168	1,405	8
1964	514	234	416	748	31
1965	435	67	168	502	13
1966	370	53	258	423	13
1967	1,051	449	968	1,500	30
1968	480	200	469	680	29

1/ U.S. import statistics for years prior to 1966 are not available. Data represent Canadian exports to the United States. Value has been converted to U.S. dollars at the following rates: 1963, $0.927005; 1964, $0.926963; and 1965, $0.92743.

Source: Production estimated; import data for 1963-65 compiled from official export statistics of Canada, and that for 1966-68 from official statistics of the U.S. Department of Commerce.

Note.--U.S. exports are not separately reported, but are believed to be negligible.

Commodity	TSUS item
Edible preparations not elsewhere enumerated:	
Of gelatin	182.90
Other:	
Containing over 5.5 percent by weight of butterfat and not packaged for retail sale	182.92
If products of Cuba	182.93
Other (not including wheat gluten)	182.95 (pt.)

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is a net importer of the edible preparations in the group covered by this summary. In recent years, butterfat-sugar mixtures comprised the bulk of such imports but have now been made subject to import quota limitations proclaimed under section 22 of the Agricultural Adjustment Act and the Sugar Act of 1948. U.S. imports and exports of other edible preparations in the group have been small in relation to domestic production.

Description and uses

This summary includes all edible preparations not provided for under other item numbers in the tariff schedules except for wheat gluten which, though provided for under item 182.95, is discussed in a separate summary. The term "edible preparations" in items 182.90 to 182.95 embraces only substances prepared and chiefly used as a human food or as an ingredient in such food, but the term does not include any substance provided for in schedule 4 (except part 2E thereof) or schedule 5 (except part 1K thereof) of the tariff schedules.

Edible preparations in chief value of gelatin (item 182.90) are principally dessert powders which are dissolved in water before being chilled and served. Most of the gelatin dessert powders contain a fruit flavoring, but some unflavored gelatin powder preparations are also used as food. Edible gelatin as such is provided for under items 455.16, 455.18, and 455.20, and is included in a separate summary.

Butterfat-sugar mixtures, the principal imports under item 182.92, are used to replace part of the cream in the manufacture of ice cream. These mixtures have much the appearance of butter. They are solids at

room temperature but become thick oily liquids at higher temperatures. These mixtures are ordinarily considered to be dairy products but are not such for tariff purposes since there is no provision in the dairy schedule for these products. For tariff purposes they are not butter substitutes (item 116.30) because they contain sugar; nor are these products "malted milk, and articles not specially provided for, of milk or cream" under item 118.30 because milk or cream derivatives and not milk or cream as such are used in their manufacture. The packaging and the labeling itself is not sufficient to establish that a product is "packaged for retail sale" and not within item 182.92; in addition, satisfactory evidence is required showing that the packages are in fact chiefly used in the retail trade (T.D. 69-24).

A wide range of products is covered under item 182.95. Because of the residual character of the class, the following list of products cannot be definitive but is illustrative of the scope of the provision. The principal products in this category include individually packaged prepared meals; rice gluten; canned meat or fish mixed with vegetables; hydrolized vegetable protein used as food flavoring; ingredient mixtures for making various baked foods; crackers with cheese filling; beef bone stock; specialty items such as chocolate-covered ants, bees, and grasshoppers, salted melon and pumpkin seeds, and sugarcane in airtight containers; blended food products such as mixtures of gelatinized cornmeal with soy flour, nonfat dry milk, and vitamins and minerals; frozen unbaked bread dough; unbaked pastry; frozen pizza pies; instant tea mixed with sugar and lemon; instant coffee mixed with sugar and a whitening agent; popsicles; milk sherbet; ice cream sandwiches; ice cream covered with a confectionery coating; confectionery coating made of sugar, skim milk powder, and vegetable fat when the ingredient of chief value is vegetable fat; prefried cereal breading when bread itself does not come into existence in any stage of manufacture; dessert topping in aerosol cans when the ingredient of chief value is not milk or cream; soybean protein concentrate used for enriching other foods; egg rolls; shrimp chop suey; shrimp fried rice; shrimp egg foo yung; and salt flavored with onion, garlic, celery, smoke, or other substances.

Butterfat-sugar mixtures, which usually contain about 44 percent butterfat and 56 percent sugar, are not produced in the United States for commercial sale. As articles of commerce, they are supplied entirely by imports. Trade has developed in such products in part because U.S. prices for butterfat have at times been much higher than prices in other countries, mainly as the result of U.S. price-support programs, and in part because imports of milk, cream, and butterfat as such or in certain combinations have been subject either to import quota limitations or, in effect, an embargo (zero quotas).

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Edible preparations not specially provided for:			
182.90	Of gelatin	12.5% ad val.	10% ad val.	6% ad val.
	Other:			
182.92	Containing over 5.5 percent by weight of butterfat and not packaged for retail sale.	20% ad val.	1/	1/
182.93	If products of Cuba.	16% ad val.	1/	1/
182.95(pt.)	Other	20% ad val.	16% ad val.	10% ad val.

1/ Duty not affected by the trade conference.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

The rate shown for item 182.93, the preferential rate for products of Cuba, was suspended on May 24, 1962. Imports from Cuba have been prohibited since February 7, 1962.

The present items 182.92, 182.93, and 182.95 became effective on January 1, 1968. Prior to that date the present items 182.92 and 182.95 were included in the former item 182.91, which provided for

other edible preparations not specially provided for, and the present item 182.93 was included in the former item 182.92, which provided for such items if products of Cuba.

Imports of edible preparations containing over 5.5 percent by weight of butterfat are subject to restrictions under the authority of section 22 of the Agricultural Adjustment Act, as amended. The present annual restrictions are as follows:

TSUS item	Description	Quota
	Articles containing over 5.5 percent by weight of butterfat, the butterfat of which is commercially extractable, or which are capable of being used for any edible purpose (except articles provided for in subparts A, B, C or item 118.30, of part 4, schedule 1, and except articles which are not suitable for use as ingredients in the commercial production of edible articles):	
950.22	Over 45 percent by weight of butterfat	None
950.23	Over 5.5 percent but not over 45 percent by weight of butterfat and classifiable for tariff purposes under item 182.92 or 182.95:	
	Australia	2,240,000 lbs.
	Belgium and Denmark (aggregate)	340,000 lbs.
	Other	None

Quotas became effective in 1957 for those articles containing over 45 percent of butterfat (T.D. 54345) and on July 1, 1967, for the articles containing over 5.5 percent but not over 45 percent of butterfat (T.D. 67-172). Originally the quota restrictions did not apply to "articles packaged for distribution in the retail trade and ready for use by the purchaser at retail for an edible purpose or in the preparation of an edible article." The retail packages were included under the section 22 quotas, effective January 6, 1969 (T.D. 69-24) (34 F.R. 768).

Under authority of the Sugar Act of 1948, as amended, the Secretary of Agriculture also established import quotas on certain mixtures of sugar and butterfat and/or flour which contained more than 25 percent of sugar for the latter part of 1966 (31 F.R. 9495) and all of 1967 (31 F.R. 16518). The quota amounts for each country except Australia were established on the basis of the annual average of U.S. imports during 1964-66. Australia having limited its exports to the United States in the base period with actual imports therefrom not

being a true measure, the Department of Agriculture established an import quota for Australia equal to that for the country having the largest average annual imports in the base period (Belgium).

For the calendar year 1967 the quotas were as follows:

Country	Quota
Australia	14,090,000 lbs.
Austria	827,000 lbs.
Belgium	14,090,000 lbs.
Canada	11,650,000 lbs.
Denmark	1,926,000 lbs.
Sweden	397,000 lbs.
United Kingdom	2,159,000 lbs.
Other	The quantity containing 200,000 lbs., raw value, of sugar or liquid sugar (187,000 lbs. of refined sugar).

For 1968 and subsequent years, the quotas under the Sugar Act were amended to limit imports of certain products which contain more than 25 percent of sugar if the principal ingredients (other than sugar) singly or in combination are butterfat and/or flour, and the butterfat content is not more than 5.5 percent by weight 1/ (33 F.R. 3423). The quantity of such products permitted to be imported from any country in 1 calendar year is the quantity which contains 100 short tons (200,000 pounds), raw value, of sugar (187,000 pounds of refined sugar).

Imported products that are in chief value of manufactured sugar are subject to an additional duty of 0.53 cent per pound on the total sugar content (item 901.00, appendix to the TSUS).

U.S. consumption, producers, and production

U.S. consumption of gelatin desserts (item 182.90) is approximately equal to production. Factory shipments reported in the Census of Manufactures amounted to 291 million pounds, valued at $116 million, in 1963, compared with 189 million pounds, valued at $58 million, in 1958. The number of producers is small, with two major companies predominating. The largest firms also produce and market a wide variety

1/ TSUS item 950.23 provides quota restrictions for those products in which the butterfat content is over 5.5 percent.

of other products, including yeast and baking powder, coffee, tea, confectionery, breakfast foods, corn sirup, corn starch, distilled alcoholic beverages, and dog food.

U.S. consumption of the particular butterfat-sugar mixtures covered in item 182.92 is limited to imports. There are no domestic producers of these mixtures. Imports compete, however, with domestic milk, cream, and butterfat covered in the summaries dealing with dairy products.

Consumption of articles covered in item 182.95, edible preparations, not specially provided for, is about equal to production. Annual data are not available. For those products reported in the Census of Manufactures in 1963, the value of shipments amounted to approximately $1.2 billion. The number of companies producing the wide range of products covered here is large, and their establishments are widely distributed geographically. Most firms produce other specialty food products as well, but the preparations usually account for a major share of their sales.

U.S. exports and imports

U.S. exports of the products covered in this summary are included with other articles reported in the statistical exports category for "food preparations not elsewhere classified." Certain products, such as ice cream (item 118.25), potato chips (item 141.81), and peanut butter (items 145.48 and 145.49), which this summary does not include, actually make up the bulk of the exports in the category. The aggregate value of the exports, including those products not covered here, averaged $7.9 million annually in the period 1963-68, with Canada, Japan, and the United Kingdom the principal markets in most years (table 1). Of the products included in this summary, the most important exports were canned macaroni and cheese, Spanish rice, and ravioli.

Imports of edible preparations of gelatin (item 182.90) have been minor, averaging only $11,000 annually in 1964-68. The only consistent source has been Switzerland.

U.S. imports of butterfat-sugar mixtures (item 182.92) varied in the period 1963-68 not only with fluctuations in the U.S. supply and price of milk and butterfat and in the supplies of butterfat in Europe and Australia, but also by reason of the imposition of quota restrictions. Imports were estimated to have amounted to 3.3 million pounds in 1963. In 1964 and 1965 they averaged less than 400,000 pounds annually. In 1966, however, when U.S. production of milk declined and prices of dairy products rose, imports increased to 107.6 million pounds, valued at $24.6 million (table 2); in 1967, despite a section

22 quota imposed in July (see tariff treatment section), they amounted to 100.5 million pounds, valued at $21.4 million. Imports in 1968 amounted to only 1.9 million pounds, valued at $570,000.

In the period 1961-65, imported butterfat-sugar mixtures provided less than one-half of 1 percent of the butterfat used in the manufacture of ice cream in the United States. In 1966 such mixtures provided about 12 percent of the butterfat used in its production. The principal sources in 1966 were Canada, Belgium, the United Kingdom, Denmark, Switzerland, Australia, Austria, and France.

Imports of other edible preparations (item 182.95) averaged $3.6 million in value annually in 1964-68 (table 3), when the principal sources of these imports were Argentine, Canada, Japan, and West Germany. Imports from Argentina have consisted principally of beef bone stock (used in making soups); those from Canada have been hydrolized vegetable protein, confectionery fillings, and frozen unbaked doughs; imports from Japan have consisted of individually packaged meals, canned meat or fish with vegetables, and various specialty appetizer products; and the imports from West Germany were principally ingredient mixtures for making dumplings and other foods.

Table 1.--Edible preparations including gelatin preparations, not elsewhere enumerated: U.S. exports of domestic merchandise, by principal markets, 1963-68

(In thousands of dollars)

Market	1963	1964	1965	1966	1967	1968
Canada	1,432	2,282	2,929	2,860	2,510	1,901
Bahamas	56	87	258	330	460	903
Japan	332	151	367	614	698	707
United Kingdom	214	207	276	344	1,056	554
Jamaica	23	36	140	476	331	528
Sweden	251	377	87	134	396	253
Australia	158	173	64	185	130	192
Peru	29	36	47	254	392	132
Netherlands	67	265	37	31	41	102
Brazil	57	63	-	280	849	18
Norway	86	73	-	-	4	5
Spain	42	123	16	18	6	5
All other	1,432	1,724	2,241	3,021	3,885	6,527
Total	4,179	5,597	6,462	8,547	10,758	11,827

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

Note.--Data reflect the total of exports of "food preparations not elsewhere classified," including products such as ice cream, potato chips, and peanut butter, which are not covered by this summary but which actually account for the bulk of the exports shown above.

Table 2.--Edible preparations, not elsewhere enumerated, containing over 5.5 percent by weight of butterfat: U.S. imports for consumption, by principal sources, 1963-68

Source	1963 1/	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Belgium	-	-	42	37,160	46,995	92
Canada	-	-	4	40,659	20,451	-
France	-	-	-	1,316	10,997	-
Denmark	-	-	628	6,827	1,550	-
United Kingdom	-	4	-	8,419	1,193	-
Switzerland	-	1	-	5,357	-	-
Australia	3,300	-	-	3,285	2,779	1,760
Austria	-	-	-	2,349	-	-
West Germany	-	-	-	408	-	-
All other	-	27	10	1,841	16,583	30
Total	3,300	32	684	107,621	100,548	1,882
	Value (1,000 dollars)					
Belgium	2/	-	10	8,743	9,528	18
Canada	2/	-	1	9,050	4,342	-
France	2/	-	-	327	2,435	-
Denmark	2/	-	154	1,787	515	-
United Kingdom	2/	1	-	1,662	213	-
Switzerland	2/	1	-	1,280	-	-
Australia	2/	-	-	751	711	542
Austria	2/	-	-	466	-	-
West Germany	2/	-	-	104	-	-
All other	2/	5	3	438	3,673	10
Total	2/	7	168	24,608	21,417	570

See footnotes at end of table.

Table 2.--Edible preparations, not elsewhere enumerated, containing over 5.5 percent by weight of butterfat: U.S. imports for consumption, by principal sources, 1963-68--Continued

Source	1963 1/	1964	1965	1966	1967	1968
	Unit value (per pound)					
Belgium	2/	-	$0.24	$0.24	$0.20	$0.20
Canada	2/	-	.25	.22	.21	-
France	2/	-	-	.25	.22	-
Denmark	2/	-	.25	.26	.33	-
United Kingdom	2/	$0.25	-	.20	.18	-
Switzerland	2/	1.00	-	.24	-	-
Australia	2/	-	-	.23	.26	.31
Austria	2/	-	-	.20	-	-
West Germany	2/	-	-	.25	-	-
All other	2/	.19	.30	.24	.22	.31
Average	2/	.22	.25	.23	.21	.30

1/ Quantity data estimated by the U.S. Department of Agriculture.
2/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 3.--Edible preparations, not elsewhere enumerated: 1/ U.S. imports for consumption, by principal sources, 1963-68

(In thousands of dollars)

Source	1963 2/	1964	1965	1966	1967	1968
Japan	211	245	400	471	570	782
Argentina	540	543	408	655	765	567
Canada	889	756	631	477	671	456
West Germany	249	259	328	440	376	417
United Kingdom	99	76	123	131	85	262
Greece	51	49	81	88	85	98
Hong Kong	116	111	91	85	86	93
Italy	107	87	67	92	64	63
Netherlands	82	52	125	214	72	61
France	188	74	41	127	41	25
Australia	881	1	-	224	-	10
All other	214	359	185	388	3/ 1,699	4/ 2,135
Total	3,627	2,612	2,480	3,392	4,514	4,969

1/ Excluding preparations of gelatin, those preparations containing over 5.5 percent by weight of butterfat, and wheat gluten; wheat gluten is covered by a separate summary in this volume.

2/ Data include imports of wheat gluten, which are estimated to have amounted to $1.8 million.

3/ Includes imports from New Zealand, valued at $1.3 million.

4/ Includes imports from Denmark, valued at $1.3 million, and from Belgium, valued at $349,000.

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

Commodity	TSUS item
Wheat gluten	182.95 (pt.)

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Domestic producers have supplied about four-fifths of the wheat gluten consumed in the United States in recent years. Imports in 1963-68 averaged 7.2 million pounds, valued at $1.7 million annually. Exports are negligible.

Description and uses

Wheat gluten is a light tan powder which contains from 75 to 82 percent protein. It is produced by washing the dough made from a residual grade of wheat flour, known as second clear, with water. The washing process separates the starch (an important coproduct) from the gluten. If the gluten is dried at a relatively low temperature, it retains its natural elasticity and water absorbing properties and is known as vital wheat gluten; devitalized wheat gluten is dried at a higher temperature, and has lost these properties.

Vital wheat gluten is used principally by the baking industry, cereal breakfast food manufacturers, and the flour milling industry. The addition of vital wheat gluten to flour improves the baking quality by giving the baked goods a light, springy, finely textured quality and a longer shelf life.

Devitalized wheat gluten is used principally as a protein supplement in food products; it is also used to a limited extent as a raw material in the manufacture of monosodium glutamate (M.S.G. is used as a flavor intensifier).

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
182.95(pt.)	Wheat gluten-------	20% ad val.	16% ad val.	10% ad val.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

Prior to January 1, 1968, wheat gluten was provided for under TSUS item 182.91 (pt.) and dutiable at the rate of 20 percent ad valorem; this is the rate which was in effect in the original Tariff Act of 1930 under paragraph 1558, as it applied to edible preparations not elsewhere provided for.

U.S. consumption and production

U.S. consumption of wheat gluten averaged 34.1 million pounds annually during 1963-66, or about 24 percent larger than in the period 1960-62. Domestic production has supplied about 80 percent of the wheat gluten consumed in the United States in recent years (table 1).

The annual production of wheat gluten, which has increased greatly since the early 1950's, averaged 27.2 million pounds, valued at $7.1 million annually during 1963-66. This increase has been largely the result of an amendment in 1959 to the Food and Drug Administration's standard of identity for bakery products, which allowed the use of wheat gluten, up to specific limits, in making rolls, buns, and raisin bread. In 1964 a similar amendment extended the use of wheat gluten to white bread, enriched bread, and whole wheat bread baked in loaf form. Prior to the amendments to the standards of identity for these bakery products, the use of additional

wheat gluten was not permitted. At that time only small quantities of wheat gluten were produced; second clear flour was used as an animal feed and exported for use as flour in countries which do not demand the white bread popular in the United States.

U.S. producers

The five domestic producers of wheat gluten are located in Michigan, Colorado, Kansas, Minnesota, and Ohio. While the production of wheat gluten and starch may be the principal source of income for some establishments, most of the producing firms have diversified operations at other locations which provide the bulk of their income.

The producers of wheat gluten sell directly to bakers, cereal breakfast food manufacturers, other food processors, distributors of bakers' supplies, and flour mills.

U.S. exports and imports

U.S. exports of wheat gluten are not separately reported, but are believed to be negligible.

Imports of wheat gluten averaged 7.2 million pounds annually with an average annual value of $1.7 million in the period 1963-68. During this period, wheat gluten from Canada constituted 58 percent of the total quantity imported into the United States.

Imported wheat gluten has consisted almost entirely of vital wheat gluten. The imported product has usually contained about 80 percent protein on a dry-weight basis, while the domestic product has averaged about 75 percent protein. The principal sources of imports have generally been Canada and Australia, although West Germany and Switzerland have become increasingly important in recent years (table 2).

In 1964 the Tariff Commission conducted an investigation on vital wheat gluten from Canada, under the Antidumping Act of 1921, as amended. The purpose of the investigation was to determine whether a U.S. industry was being or was likely to be injured or prevented from being established due to imports of vital wheat gluten from Canada that were being sold at less than fair value. The Commission finding was that no industry was being or likely to be injured, or prevented from being established due to the imports (TC Publication 126).

Table 1.--Wheat gluten: U.S. production, imports for consumption, and apparent consumption, 1963-68

Year	Production			Imports	Apparent Consumption	Ratio (percent) of imports to consumption
	Vital	Devitalized	Total			
	Quantity (1,000 pounds)					
1963	26,618	1,298	27,816	8,215	36,031	22.8
1964	23,857	1,181	25,038	5,512	30,550	18.0
1965	27,070	1,032	28,102	6,096	34,198	17.8
1966	27,341	700	28,041	7,408	35,449	20.9
1967	1/	1/	1/	5,764	1/	1/
1968	1/	1/	1/	10,373	1/	1/
	Value (1,000 dollars)					
1963	8,449	383	8,732	2,121	2/	2/
1964	5,568	177	5,745	1,120	2/	2/
1965	6,593	196	6,789	1,194	2/	2/
1966	6,991	136	7,127	1,500	2/	2/
1967	1/	1/	1/	1,200	1/ 2/	1/ 2/
1968	1/	1/	1/	2,070	1/ 2/	1/ 2/

1/ Not available.
2/ Not meaningful.

Source: Data on production and 1963 imports submitted to the Tariff Commission by the industry; 1964-68 import data compiled from official statistics of the U.S. Department of Commerce.

Note.--Exports of wheat gluten are not separately reported but are believed to be negligible.

Table 2.--Wheat Gluten: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Canada	2,881	4,123	4,779	4,507	3,377	5,329
Australia	4,748	682	569	1,153	522	2,905
West Germany	1/	-	112	827	1,012	1,191
Switzerland	1/	402	502	445	761	917
All other	586	305	134	476	92	31
Total	8,215	5,512	6,096	7,408	5,764	10,373
	Value (1,000 dollars)					
Canada	429	864	956	935	720	1,124
Australia	1,202	132	108	222	96	527
West Germany	1/	-	18	157	202	235
Switzerland	1/	82	87	88	154	178
All other	490	42	25	98	28	6
Total	2,121	1,120	1,194	1,500	1,200	2,070

1/ Not available.

Source: 1963 data provided by industry; data for 1964-68 compiled from official statistics of the U.S. Department of Commerce.

Commodity	TSUS item
Shellac, stick lac, seed lac, button lac, and other lacs	188.10

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Lac is not produced in the United States; imports, almost entirely from Thailand, India, and West Germany, have been declining in recent years due to increased competition from synthetic resins. Imports have been primarily in crude form for further refining in the United States, although the proportion entering in refined form has been increasing.

Description and uses

Shellac, stick lac, seed lac, button lac, and other lacs (referred to collectively as lac), all of which are in dry rather than liquid form, are included in this summary. The better known liquid shellac varnish--shellac dissolved in alcohol--is covered by another summary (item 474.40).

Lac is the only commercial resin of animal origin. The secretion of lac scale insects chemically transforms the sap of host trees into this resin. The lac insect thrives mainly in the regions of high annual rainfall in India and Thailand; consequently, all the lac consumed in the United States must be imported.

Lac incrustations are removed from the tree branchlets by breaking, twisting, or scraping them off by hand. The resulting crude material, which consists of lac, insect bodies, twigs, bark, and other extraneous matter, is known as stick lac. Stick lac is washed, ground, and sieved to produce seed lac. Shellac is then obtained by purifying the seed lac with a solvent or by squeezing the heated molten seed lac through long cloth bags, drawing it into sheets, and, after cooling, breaking it into flakes. Either seed lac or shellac may be bleached to remove the dark color. Most of the shellac used in the United States is bleached. For some purposes the shellac is refined further to remove the natural waxes which are present in this resin.

Button lac differs from shellac only in that, instead of being drawn into sheets and flaked, the molten resin is cast into button-shaped cakes. Garnet lac is a dark garnet colored, largely wax-free resin that is sold in small pieces 1/8 to 1/4 inch in thickness.

The primary use of shellac is as a constituent in self-polishing floor waxes. The second most important use is in varnish for priming and finishing wood. Shellac is also an essential material in non-shattering molded articles that are subjected to high voltages. Bleached shellac is preferred in floor waxes and varnishes; unbleached shellac is usually used in other articles. Other uses of shellac are as an ingredient in flexographic inks, as a coating on the back of zinc engraving plates that are dipped into acid, as a constituent in gasket cements, as a binder in the soles of shoes, as a nonconducting or dielectric insulating coating, as a stiffener for felt hats, as a coating for paper, leather, and textiles, as a sealant for basing electric bulbs and electron tubes, and as a sealant for primers in ammunition. Although shellac has been replaced in many uses by other natural and synthetic resins, principally vinyl and styrene polymers, it is on the list of strategic and critical materials stockpiled by the Government. A stockpile of close to 19 million pounds was accumulated during the 1950's. During the 1960's about 11 million pounds was resold to the trade leaving a retained stockpile in 1968 at the objective level of 8.3 million pounds.

U.S. tariff treatment

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
188.10	Shellac, stick lac, seed lac, button lac, and other lacs.	Free

Duty-free treatment of lac was provided for in the Tariff Act of 1930 and was bound pursuant to a concession granted by the United States in the General Agreement on Tariffs and Trade, effective July 9, 1948.

U.S. consumption, processing, and exports

U.S. consumption, as measured by imports, has declined from an annual average of over 40 million pounds in 1948-58 to about 30 million pounds in 1959-62 and 22 million pounds in 1963-68. However, the actual decline in consumption is a little less than is indicated by the decline in imports since there were stockpile acquisitions in the 1950's and stockpile dispositions during the 1960's. The decline in U.S. consumption of lac is largely attributable to increased competition from synthetic resins of lesser cost. About a half dozen firms, largely in the New York area, do most of the processing and primary distributing of lac in the United States. With the downward trend in consumption

there has been a concurrent downtrend in U.S. processing since the major portion of the supply is processed in the United States.

U.S. exports of lac consist largely of shellac processed in this country from imported seed lac. The exports, which go mainly to Canada and Mexico, traditionally have been small and averaged 467,000 pounds annually in 1961-64. The separate reporting of export statistics ceased after 1964.

U.S. imports

The United States is the leading importer of lac and probably takes about one-third of the world output. U.S. imports of lac in all stages of processing during the period 1963-68 are shown in the following tabulation:

Year	Quantity 1,000 pounds	Value 1,000 dollars
1963-----	27,767	3,745
1964-----	23,318	3,422
1965-----	23,192	3,052
1966-----	25,400	2,933
1967-----	14,954	2,378
1968-----	13,603	2,184

Seed lac, all of which requires further processing, accounted for about 78 percent of the total imports during this period, although the proportion of seed lac to the total is declining. Thailand is the major supplier and India accounts for most of the remainder (table 1). Seed lac from Thailand is much cheaper than that from India due mainly to the manner of preparation, but also, according to some sources, due to a lower grade of raw material. The State trading agency in India regulates the export prices of lac from that country and establishes quality control and grade standards for both seed lac and further processed lac.

Bleached shellac accounted for 6 percent of the U.S. imports of lac in 1963-68. India and West Germany were the chief suppliers (table 2). Unbleached shellac, button lac and dewaxed shellac accounted for 16 percent of the imports. As with bleached shellac, the chief suppliers were India and West Germany (table 3).

Foreign production and trade

World output of lac (on a seed lac basis) is, on the average, about 50 million pounds a year. India and Thailand probably produce 95 percent of the world output of lac and export all but about

5 percent of their output. Other producing nations include Burma, Pakistan, Indonesia, and Viet Nam. The principal importing countries are the United States, the United Kingdom, West Germany, and the U.S.S.R.

India traditionally has been the leader in lac production, but in most recent years Thailand apparently has been the leading producer. Before World War II, Thailand's production was relatively small and mostly consisted of stick lac which was exported to India as a raw material for India's production of seed lac and particularly, unbleached shellac. In the period since the war, seed lac production was developed successfully in Thailand and that country's lac production expanded greatly. India's output declined following an unsuccessful attempt to set minimum prices and as a result of reduced demand in the world market for unbleached shellac. The minimum prices were set too high to compete with synthetic resins and India's unbleached shellac became less desirable to overseas buyers than Thailand's seed lac. In both India and Thailand the production of lac is a primitive cottage industry characterized by small-scale cultivation in remote areas and long chains of intermediate dealers and shippers. In addition to economic factors, the weather plays an important role in volume of output. In years of low rainfall, production is reduced considerably.

Table 1.--Seed lac: U.S. imports for consumption, by principal sources, 1963-68

Source	1963 1/	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Thailand	15,792	11,394	17,075	20,057	7,977	5,860
India	7,404	6,498	1,380	1,072	2,493	2,708
All other	-	-	123	-	58	-
Total	23,196	17,892	18,578	21,129	10,528	8,568
	Value (1,000 dollars)					
Thailand	1,075	924	1,334	1,413	801	550
India	1,405	1,094	287	243	456	418
All other	-	-	11	-	9	-
Total	2,480	2,018	1,632	1,656	1,266	968
	Unit value (cents per pound)					
Thailand	6.8	8.1	7.8	7.0	10.0	9.4
India	19.0	16.8	20.8	22.7	18.3	15.4
All other	-	-	8.9	-	16.5	-
Average	10.7	11.3	8.8	7.8	12.0	11.3

1/ May include a small quantity of stick lac.

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

Table 2.--Bleached shellac: U.S. imports for consumption by sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
India	373	814	1,610	1,537	634	1,368
West Germany	233	148	201	86	163	220
Canada	-	-	9	30	20	20
Thailand	-	-	4	163	-	-
Total	606	962	1,824	1,816	817	1,608
	Value (1,000 dollars)					
India	102	207	509	492	126	276
West Germany	97	62	47	37	71	87
Canada	-	-	7	13	9	8
Thailand	-	-	1	15	-	-
Total	199	269	564	557	206	371
	Unit value (cents per pound)					
India	27.4	25.4	31.6	32.0	19.8	20.2
West Germany	41.5	41.7	23.5	42.6	43.7	39.5
Canada	-	-	89.0	43.1	42.9	42.2
Thailand	-	-	19.3	9.3	-	-
Average	32.8	27.9	30.9	30.7	25.2	23.1

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

Table 3.--Lac other than seed lac or bleached shellac: 1/ Imports for consumption by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
India	3,406	3,608	2,079	1,888	2,976	2,556
West Germany	559	753	577	530	595	822
Thailand	-	94	101	37	33	16
Other	-	9	33	-	5	33
Total	3,965	4,464	2,790	2,455	3,609	3,427
	Value (1,000 dollars)					
India	854	840	610	507	663	518
West Germany	212	283	220	209	234	318
Thailand	-	9	16	4	6	3
Other	-	3	10	-	3	6
Total	1,066	1,135	856	720	906	845
	Unit value (cents per pound)					
India	25.1	23.3	29.4	26.8	22.3	20.3
West Germany	38.0	37.6	38.0	39.4	39.2	38.7
Thailand	-	10.0	15.6	10.5	17.8	16.8
Other	-	33.3	31.8	-	56.3	16.4
Average	26.9	25.4	30.7	29.3	25.1	24.6

1/ Mostly ordinary shellac in flakes.

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

Commodity	TSUS item
Balsams, natural and not artificially mixed with other substances:	
Copaiba	188.18
Styrax	188.20
Tolu	188.22
Other	188.24

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Domestic production of natural balsams is insignificant; most balsams are imported in crude form and are further processed for specific uses.

Description and uses

Natural balsams are the physiological and pathological exudations of certain species of trees and plants, and are a mixture of essential oils, resins, and aromatic acids. Technically, the term "balsam" is usually limited to oleoresins containing benzoic or cinnamic acid, either free or combined in salts or esters; however, commercial usage of the term includes some oleoresins without these acids and excludes some oleoresins mixed with these acids. Balsams appear in commerce as aromatic thick liquids or semisolids in a color range from pale yellow to reddish or greyish brown. Most of them are fixatives for their own specific aroma or added aromatics and are used along with their extracted essential oils in cosmetics, soaps, pharmaceuticals and in a variety of other uses. Most of the balsams are considerably more expensive than the commercial gums and resins. The TSUS provides by name for three balsams--copaiba, styrax, and tolu--and a basket category for other natural balsams.

Copaiba, TSUS item 188.18, is the balsam obtained from the trunk of Copaifera langsdorffi and other South American species of Copaifera. It appears as a pale yellow to brownish-yellow viscous liquid having a peculiar, aromatic odor and a persistent, bitter, nauseous taste. Copaiba consists of from 20 to 90 percent volatile oil, which is distilled from the balsam for medicinal and scenting purposes. Uses of copaiba are mainly industrial. It was once used medicinally in the treatment of inflammations of the bladder and occasionally in the treatment of bronchitis. However, development

of the sulfonamides and penicillin virtually eliminated copaiba from these uses. Copaiba is used in the manufacture of varnishes, lacquers, tracing cloth, transparent paper, and photographic paper, and as a fixative and scenting agent in perfumes, soaps, and cosmetics.

Styrax, TSUS item 188.20, is also known as liquid amber. It is the balsam obtained from either Liquidambar orientalis, a medium-sized tree found in the forests of Turkey and other areas of Asia Minor, or L. styraciflua, an allied species found in the southeastern United States, Mexico, and the highlands of Honduras and Guatemala. Crude styrax is a viscous semiliquid substance, grey in color, with a pleasant aromatic odor. The purified product is semitransparent and yellow-brown in color. Styrax is used as a raw material in the isolation of cinnamic acid and styrax oil, and as an ingredient in tobacco and perfume and other toilet preparations.

Tolu, TSUS item 188.22, is obtained by tapping the trunk of the tropical American tree Myroxylon balsamum. This balsam has a soft tenacious consistency that varies considerably with temperature and gradually hardens with age. It is usually the most expensive of the various natural balsams. It appears in commerce as a yellowish-brown semisolid with a pleasant, aromatic odor resembling vanilla. Balsam of tolu is used medicinally as a disinfectant, as an ingredient in various internal remedies, and as an ingredient in cough syrup and lozenges. Tolu is also used in the manufacture of soaps, cosmetics, perfumes, fumigating compositions, and as a glaze in confectionery.

The principal products included in TSUS item 188.24 are Peru balsam and Canada balsam (fir balsam). Peru balsam is obtained from the tropical tree Myroxylon pereirae, which is a member of the same genus as the tree that yields tolu balsam. A vanilla aroma is a characteristic of both Peru and tolu balsams. Peru balsam is used for its pleasing aroma and as a fixative in perfume, soap, and cosmetics. Peru balsam is used externally as a medicinal antiseptic and a parasiticide. It is also the source of Peru balsam oil.

Canada balsam is obtained as an exudation from the balsam fir Abies balsamea. Because of its adhesive properties and its transparency, this balsam is used as a cement for optical lenses and for permanent microscope slides of scientific specimens. It is also used as a fixative in pine needle fragrances.

A minor domestic product, Oregon balsam, is somewhat like Canada balsam. It is gathered from the Douglas fir, Pseudotsuga menziesii, in the States of Oregon and Washington. It is used to some extent in dry-cell batteries and in pigments for paints.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Balsams, natural and not artificially mixed with other substances:			
188.18	Copaiba	10% ad val.	Free	Free
188.20	Styrax	5% ad val.	4% ad val.	3.7% ad val.
188.22	Tolu	10% ad val.	Free	Free
188.24	Other, not specially provided for	2.5% ad val.	1% ad val.	Free 1/

1/ The final rate for this item will become effective January 1, 1971, at the fourth stage.

The foregoing tabulation shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final stages of the rate modifications are shown for items 188.20 and 188.24 (see the TSUSA-1969 for the other stages). The free rate for items 188.18 and 188.22 became effective on Jan. 1, 1968. Under authority of sections 253(b) and 213 of the Trade Expansion Act of 1962, the staging of reductions does not apply to certain tropical products. During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

U.S. imports, production, and consumption

Domestic production of balsams is not significant. There is an insignificant production of styrax from the sweet gum tree in the Southeastern States and of Oregon balsams in the Pacific Northwest. Since domestic production of balsams is very small and since there are few, if any, U.S. exports of balsams, imports approximate apparent consumption. Most imported balsams, as well as the small domestic output, are further refined by a few firms located mainly in the New York City area.

In the years 1963 to 1968, imports of all balsams fluctuated between 274,000 and 709,000 pounds, averaging about 475,000 pounds annually (table 1). The annual value fluctuated from over $300,000 to about $1,000,000. There has been no discernible trend in imports during the period 1958-68. Copaiba is supplied almost entirely by Brazil (table 2). Styrax enters largely from Turkey and Honduras and tolu is received from Colombia and the United Kingdom (a processed product originating in Colombia). The imports of "other" balsams are primarily Peru balsam from El Salvador and other Central American countries and Canada balsam from Canada.

Foreign production and trade

With the exception of imported Canada balsam and the negligible domestic production of Oregon balsam and styrax, all balsams consumed in the United States are produced in tropical or semitropical countries from trees that are scattered among other forest or jungle growth. The United States is the major market for balsams; Western Europe and Japan are also important markets. Occasionally certain balsams are refined in Western Europe before shipment to the United States.

Copaiba is produced mostly in Brazil in the States of Para and Amazonas, which lie in the Amazon basin. The product from the State of Para, by far the most important, is known in commerce as Para balsam. Small amounts of copaiba are also obtained in Venezuela, the Guianas, and Colombia.

Styrax is produced in Turkey, Honduras, Mexico, Nicaragua, and Guatemala. Turkey and Honduras together have accounted for more than 90 percent of world production of several hundred metric tons of styrax annually in recent years. The Turkish production is centered in swampy valleys near the Mediterranean sea, while Honduran styrax, the most important commercial type of American styrax, is collected in dense jungle forests, under difficult conditions.

Balsam of tolu is produced almost exclusively in Colombia. Small amounts are also produced in Surinam and Malaysia but are insignificant in world trade. World output is probably about 100 metric tons annually.

Peru balsam is produced chiefly in El Salvador and to a small extent in Nicaragua and Mexico.

Canada or fir balsam is obtained chiefly in the province of Quebec. It is found in large blisters in the bark of the balsam fir and is collected by piercing the blisters with the pointed spout of a can. About 1 pound of resin can be collected from a tree at one time. The balsam is clarified and then sent to Montreal or Quebec for marketing.

Table 1.--Balsams: U.S. imports for consumption, by kinds, 1963-68

Year	Copaiba	Styrax	Tolu	Natural balsams, not specially provided for	Total
	Quantity (1,000 pounds)				
1963	60	69	52	125	306
1964	35	74	55	110	274
1965	53	160	62	183	458
1966	226	118	69	188	601
1967	67	179	31	227	504
1968	135	106	48	420	709
	Value (1,000 dollars)				
1963	24	149	147	115	435
1964	15	127	130	110	382
1965	31	120	134	420	705
1966	246	184	155	390	975
1967	43	279	98	331	751
1968	56	206	121	315	698
	Unit value (per pound)				
1963	$0.40	$2.16	$2.83	$0.92	$1.42
1964	.43	1.72	2.36	1.00	1.39
1965	.58	.75	2.16	2.30	1.54
1966	1.09	1.56	2.25	2.07	1.62
1967	.64	1.56	3.16	1.46	1.49
1968	.41	1.94	2.55	.75	.98

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

Note.--Domestic production of balsams is not significant. There is a small domestic production of styrax from the sweet gum tree in the Southeastern States and of fir balsam in the Pacific Northwest. Exports of balsams are believed to be negligible.

Table 2.--Balsams: U.S. imports for consumption, by kinds, by principal sources, 1964, 1967, and 1968

(Quantity in thousands of pounds; value in thousands of dollars)

Kind	Quantity	Value	
		Total	By principal sources
	1964		
Copaiba	35	15	Brazil, 13.
Styrax	74	127	Turkey, 76; Honduras, 34; Nicaragua, 17.
Tolu	55	130	Colombia, 104; Canada, 12.
Other	110	110	El Salvador, 82; Canada, 13; Nicaragua, 8; Guatemala, 5.
	1967		
Copaiba	67	43	Brazil, 43.
Styrax	179	279	Honduras, 118; Turkey, 96; Denmark, 32; West Germany, 31.
Tolu	31	98	Colombia, 54; United Kingdom, 33; Canada, 11.
Other	227	331	El Salvador, 252; Nicaragua, 42; Canada, 33; Honduras, 4.
	1968		
Copaiba	135	56	Brazil, 56.
Styrax	106	206	Turkey, 76; Honduras, 67; United Kingdom, 61.
Tolu	48	121	Colombia, 83; United Kingdom, 22; Canada, 15.
Other	420	315	El Salvador, 217; Ecuador, 60; Nicaragua, 16; Canada, 16.

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

Commodity	TSUS item
Amber and amberoid	188.30

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Neither amber nor amberoid are produced in the United States. Insigificant quantities of amber have been imported in recent years.

Comment

Amber is a hard fossil resin of an extinct species of conifer. It occurs in irregularly shaped masses usually of small size but sometimes weighing up to 20 pounds. It is yellow to yellow-brown in color and is translucent. True amber is characterized by its yield of from 3 to 8 percent succinic acid and bears the mineralogical name of succinite. Though amberlike resins have been found all over the world, true amber comes only from the shores of the Baltic Sea, and in greatest amount from the glouconite sands of "blue earth" on the eastern shores of the Baltic Sea.

Amberoid or pressed amber is made from small pieces of amber or amberlike resins, united by heat and pressure. Both amber and amberoid are used in making costume jewelry, ornamental carved objects, rosaries, cigarette holders, and pipe mouthpieces. Melted amber can also be used to make a very hard varnish. In all of these uses, however, consumption of synthetic resin materials far exceeds that of amber and amberoid.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
188.30	Amber and amberoid	50¢ per lb.	40¢ per lb.	25¢ per lb.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968 (the rate originally provided in the Tariff Act of 1930), and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second and final (fifth) stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). Imports from the Soviet Union are dutiable under column 2 at the full rate of 50 cents per pound (see general headnote 3 in the TSUSA-1969).

For the small volume of dutiable imports entered in 1968, the column 1 rate of 45¢ per pound was equivalent to 5.5 percent ad valorem. For most years when the unit value of imports has been much higher, the rate has been equivalent to but one or two percent ad valorem.

As amber and amberoid are not produced domestically, imports approximate consumption. During 1963-68, annual imports of amber and amberoid ranged from none in 1967 to 94 pounds in 1963 (see table). The Soviet Union has been the principal source of imports of amber and amberoid and imports from that source will continue to be dutiable at 50 cents per pound.

Amber and amberoid: U.S. imports for consumption, by sources, 1963-68 1/

Source	1963	1964	1965	1966	1968
	Quantity (pounds)				
France	-	-	-	80	-
Denmark	-	-	7	-	88
U.S.S.R.	44	37	-	-	-
Dominican Republic	50	-	-	-	-
Total	94	37	7	80	88
	Value				
France	-	-	-	$428	-
Denmark	-	-	$678	-	$723
U.S.S.R.	$1,500	$1,394	-	-	-
Dominican Republic	275	-	-	-	-
Total	1,775	1,394	678	428	723
	Unit value (per pound)				
Average	$18.88	$37.68	$96.86	$5.35	$8.22

1/ There were no imports reported for 1967.

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

Commodity	TSUS item
Chicle:	
Crude	188.32
Other	188.34
Leche caspi and sorva	188.38 (pt.)

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The entire U.S. consumption of chicle, leche caspi and sorva is supplied by imports, virtually all of which are in crude form.

Description and uses

Chicle, leche caspi, and sorva are three of the four better-known natural gums used in the production of chewing-gum base. The fourth is jelutong or pontianak which is classed as a natural rubber (see summary on item 446.05). All four are obtained from the latex of certain tropical trees. Chicle is obtained from the latex of the sapodilla tree Achras zapota, which grows wild in the forests of southern Mexico, Guatemala, and Honduras and has been planted for its fruit in tropical lowlands throughout both hemispheres. The latex is collected from the wild trees of Central America during the rainy season and is boiled into partly dried blocks to simplify handling before it is carried out of the forests. Refined chicle has had its impurities removed by filtering and sterilizing. Leche caspi latex is collected from trees growing wild in the Peruvian area of the Amazon Valley; sorva (leite de sorva) latex is collected from the same type of tree growing in the Brazilian area of the Valley. These gums are collected and shipped in the same way as chicle.

As all forms have essentially the same properties, they may be mixed with or substituted for each other in the production of chewing-gum base. Rosin derivatives and inexpensive synthetic resins (such as polyvinyl acetate) and synthetic rubber products (such as butadiene-styrene rubber) are also frequently mixed with or substituted wholly for them. Over a period of several decades there has been a decline in use of natural gums in chewing-gum base because of greater use of the less expensive rosin derivatives and other synthetic substitutes. Considerably less than half of the chewing-gum base now being produced consists of natural gums. The base accounts for about 20 percent by weight of the chewing gum after sugar, corn sirup and flavoring are added.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Chicle:			
188.32	Crude or not processed in any manner beyond that required for proper packing	Free	1/	1/
188.34	Other	5¢ per lb.	4¢ per lb.	2.5¢ per lb.
188.38 (pt.)	Leche caspi and sorva	Free	2/	2/

1/ Duty-free status bound by the trade conference.
2/ Previously bound duty-free status not affected by the trade conference.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade (GATT). Only the second and final (fifth) stages of the annual rate modifications are shown (see the TSUSA-1969 for the other stages).

The duty-free treatment of crude chicle and leche caspi and sorva gums was provided for in the original Tariff Act of 1930. The nondutiable status of leche caspi and sorva has been bound since January 1, 1948, following a concession granted by the United States in the GATT. The duty-free treatment of crude chicle was bound in a concession granted by the United States in the sixth round of trade negotiations under the GATT. The rate shown above on chicle other than crude, prior to January 1, 1968, is that provided for in the original Tariff Act of 1930.

The average ad valorem equivalent of the specific rate of duty in effect on December 31, 1967, for TSUS item 188.34, based on the small volume of dutiable imports during 1967, was 10.9 percent. There were no imports under this item in 1968.

U.S. consumption, production, and imports

The major part of the world's production of chewing gum is consumed in the United States. U.S. chewing gum manufacturers supply the U.S. market and a large part of the foreign market as well. As none of the crude natural gums are produced in this country, the United States also is the world's leading importer of such gums. Chicle usually is imported into the United States only in the crude form because U.S. manufacturers prefer to do their own refining; the duty on refined chicle may also be a factor. Annual imports of crude chicle have been irregular in recent years and averaged about 4 million pounds annually during 1963-68, or about one-third lower than the 1958-62 average. Mexico, Guatemala, and Venezuela have supplied most of the imports (table 1). The decline resulted from the substitution of cheaper synthetic materials for chicle. In recent years annual imports of leche caspi and sorva have fluctuated widely, averaging about 4 million pounds annually in 1963-68 compared with an annual average of 5 million pounds in 1958-62. Imports of leche caspi are virtually all from Peru and imports of sorva are almost exclusively from Brazil (table 2).

The prices paid for the crude gums vary widely between different sources for the same type because of substantial differences in quality.

The principal U.S. users of these natural gums are three firms that manufacture most of the U.S. output of chewing-gum base. They refine the crude imported gums and blend them with synthetic products to produce chewing-gum base, most of which is used to manufacture their own brands of chewing gum in this country and abroad. U.S. exports of the above natural gums are usually in the form of chewing-gum base. These exports are believed to be shipped principally to the foreign subsidiaries of the three main U.S. producers of chewing-gum base located in Canada, Mexico, Japan, and Italy.

Table 1.--Chicle, crude: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Mexico	2,472	1,336	3,285	2,056	1,745	2,800
Guatemala	758	890	1,624	1,015	1,077	807
Venezuela	445	226	493	809	828	-
All other	10	103	20	223	312	62
Total	3,685	2,555	5,422	4,103	3,962	3,669
	Value (1,000 dollars)					
Mexico	2,114	1,136	2,818	1,730	1,494	2,610
Guatemala	494	639	1,163	729	810	817
Venezuela	126	65	133	218	209	-
All other	7	82	11	56	81	44
Total	2,741	1,922	4,125	2,733	2,594	3,471
	Unit value (cents per pound)					
Average, all sources	74.4	75.2	76.1	66.6	65.5	94.6

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

Note.--The only reported imports of chicle other than crude during the 1963-68 period were 22,000 pounds, valued at $7,936 in 1965 from West Germany, and 992 pounds, valued at $456 in 1967 from Switzerland.

Table 2.--Leche caspi and sorva gum: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Brazil	1,662	1,760	3,017	2,925	2,594	1,981
Peru	1,274	1,294	2,100	1,006	1,863	1,430
Other	1/	-	332	51	-	-
Total	2,936	3,054	5,449	3,982	4,457	3,411
	Value (1,000 dollars)					
Brazil	364	553	1,035	1,051	1,066	938
Peru	632	509	779	359	638	512
Other	2/	-	82	18	-	-
Total	996	1,062	1,896	1,428	1,704	1,450
	Unit value (cents per pound)					
Average, all sources	33.9	34.8	34.8	35.9	38.2	42.5

1/ Less than 500 pounds.
2/ Less than $500.

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

Commodity	TSUS item
Gum arabic	188.36
Guar, locust bean, tragacanth, and karaya gums	188.38 (pt.)
Other natural gums, gum resins, and resins, not specially provided for	188.38 (pt.)

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The gums and resins included in this summary are supplied wholly by imports with the exception of a large quantity of guar gum extracted in this country from seeds grown domestically, a small quantity of locust bean gum extracted from imported seeds, and a small quantity of larch gum recovered from domestic larch stumps. In recent years new uses have been developed for the water-soluble gums and consumption and imports are trending upward.

Description and uses

This summary covers the so-called water-soluble gums as well as a miscellaneous group of minor resins and latex gums. Other natural gums and resins are provided for in TSUS items 188.10-188.50. The gums and resins covered by this summary are obtained as tree and shrub exudates or from plant seeds. The water-soluble gums are carbohydrate-type products being soluble or miscible with water but insoluble in alcohol and most other organic solvents. The resins are insoluble in water but soluble in alcohol or various other organic solvents, whereas the latex gums are insoluble in either water or most organic solvents. (Important products obtained from seaweeds and related to the water-soluble gums are discussed in other summaries as follows: Agar agar, TSUS 455.02; alginates, TSUS 425.09 and 426.88; and carrageenan, TSUS 192.07).

The principal water-soluble gums are arabic, tragacanth, karaya, ghatti, and larch (obtained from trees and bushes) and guar and locust bean gums (obtained from seeds).

Uses of all water-soluble gums tend to some extent to overlap and in some cases the gums can be substituted for each other. One of the most important uses is as a processing agent in the manufacture of paper. These gums also are used in lithography, beer, confectionery, salad dressings, ice cream, cheese spreads, dietary foods, polishes, toothpastes, denture powders, cosmetics, and pharmaceuticals. Other

uses are in leather-tanning extracts, textile-sizing agents, as binders in matches, and in the manufacture of dry cell batteries and adhesives. The purpose of the gum generally is to serve as a thickening, binding, or stabilizing agent.

Gum arabic, also known as gum senegal or acacia gum, is collected as a secretion from several species of the acacia tree that grow in the region extending from the African Sahara to India. Gum arabic is used mainly as a protective colloid with flavors. The dried, crude gum enters commerce in small, walnut-sized pieces that vary in color from white (high grade) to dark amber (low grade). The processed gum is sold as either a fine or coarse powder. It is used largely in confectionery, bottled drinks, flavor emulsions, and lithography.

Gum tragacanth, the most expensive of the gums included in this summary, is obtained from various shrubs of the genus Astragalus which grow wild in Iran. The gum is sold mainly in the form of flakes and ribbons, the latter being the form in which it oozes from the plant. In its commercial form, tragacanth is less brittle and less glassy than gum arabic. Tragacanth also varies in color from almost pure white to dark amber. It is used as an emulsifier in pharmaceuticals and in specialty foods such as sauces and salad dressings.

Gum karaya, also known as kadaya, Indian tragacanth, or India gum, is obtained from Sterculia urens, a tree which grows throughout India. Karaya also varies in color from white to amber, depending on the degree of purity. It is used almost exclusively in pharmaceuticals, particularly in denture-adhesives and bulk laxatives.

Locust bean gum, also known as tragasol, carobseed gum, or tragon gum, is obtained from the endosperm of the bean of a honey locust tree which grows primarily in the Mediterranean area. The sweet pod containing this bean is known as St. John's bread. Locust beans used in the domestic manufacture of locust bean gum enter free of duty under TSUS item 193.25.

Guar gum is obtained from the seed of the guar plant, a drought resistant legume which is grown primarily in India and Pakistan and in the United States in Texas and Oklahoma. Probably over two-thirds of the imports of guar gum are in the crude form consisting of the unground endosperm of the guar seed (the portion remaining after removal of the hull and germ). In this form it is known as "splits" and is virtually 100 percent pure gum. Whole guar seeds enter free of duty under TSUS item 192.22.

While guar and locust bean gums are closely related in characteristics and uses, minor chemical differences preclude direct substitution in most uses. Guar has a particular advantage in being soluble in cold water. The principal uses of guar and locust bean gum are in

paper, food, textile, pharmaceutical, and explosives manufacture and to some extent in the treatment of oil wells and as a reagent in mineral beneficiation.

Included under the residual statistical provision for natural gums and resins, not specially provided for, (TSUSA item 188.3870) are a number of minor water-soluble gums, minor latex-type gums, and miscellaneous natural resins. Among the minor water-soluble gums are tamarind, ghatti, shiraz, mesquite, larch, and talca or talha gum. These gums are similar to the five principal water-soluble gums and are substitutable for them in many uses. Tamarind gum is derived from the seed of Tamarindus indica, a tree found throughout much of the tropical world but cultivated commercially mainly in India. This gum is used in the United States in paper sizing and in explosives manufacture. A small quantity of larch gum (to some extent similar to gum arabic) is produced domestically in western Montana, primarily for use in lithography. The other minor water-soluble gums are all imported.

Among the latex-type gums included herein are chilte, chiquibul, coquirana, massaranduba, balata, nispero, pendare, and tuno, all from the tropical Americas; niger gutta from West Africa; and hang kang, gutta soh and gutta kediaw from Malaysia. According to trade estimates, about 4 million pounds of such gums have been imported annually in recent years; these are reported under TSUSA item 188.3870. Most is used in chewing-gum base along with chicle (TSUS items 182.32 and 182.34), leche caspi, and sorva (TSUSA item 188.3830) and jelutong or pontianak (TSUS item 446.05) all of which are covered in separate summaries. Massaranduba and coquirana are also used as a source of precipitated balata for the manufacture of golf ball covers, and massaranduba is used in the manufacture of a fine textile adhesive.

Statistical item 188.3870 also includes a big variety of other natural resins except varnish resins, balsams, lacs, and rosin. Chief among them are benzoin (gum benjamin), frankincense (olibanum), myhrr, and guaiac resin (lignum vitae). They are used primarily as scenting agents and in medicinals.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate of duty
188.36	Gum arabic----------	Free
188.38(pt.)	Other natural gums, gum resins, and resins, not specially provided for.	Free

Effective January 1, 1968, the duty on gum arabic (item 188.36) was reduced from 0.5 cents per pound to free as a result of a concession granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. The duty-free status of other gums, gum resins, and resins, not specially provided for (item 188.38 (pt.)), was uneffected by the recent trade negotiations.

The ad valorem equivalent of the former duty on gum arabic, based on imports in 1967, was 2.1 percent.

U.S. consumption, production, and imports

There has been an upward trend in the consumption of most of the water-soluble gums covered by this summary. Consumption has increased largely because of an increased demand for use in the manufacture of dietary foods, cosmetics, and pharmaceuticals, and in new applications, such as explosives, where water-soluble gums have not been used before. Industrial uses, such as in paper manufacture, also have consumed more water-soluble gums. At one time the textile industry was a major user, but changes in manufacturing techniques have made the industry less dependent on natural gums.

While most of the water-soluble gums are imported in crude form and further processed in the United States before sale to industrial users, only two are produced from domestic raw materials. About one-fourth of the domestic consumption of guar gum, totaling about 40 million pounds annually in recent years, has been produced from guar seeds grown in Texas and Oklahoma and processed in Texas. All of the larch gum, amounting to about one-half million pounds annually, is produced in western Montana from larch stumps, chips, and plywood waste. A small quantity of locust bean gum is also extracted in some years from imported locust beans.

There are about a dozen importers and less than a half dozen processors of water-soluble gums. Most of the further processing and refining of imported crude water-soluble gums is in the New York City area. Imported guar gum, usually in the form of "splits," is also processed in Charleston, South Carolina.

During 1963-68 annual imports of gum arabic and locust bean and tragacanth gums trended upward; annual imports of the other gums varied widely during that period, showing no particular trend. Imports of gum arabic and guar gum were the most valuable, averaging $5 million and $4 million per year, respectively. Annual imports of locust bean gum, tragacanth gum, and karaya gum each averaged approximately $2 million.

Gum arabic is imported mostly from Sudan (table 2); tragacanth gum, from Iran; karaya gum, from India; locust bean gum, from the Mediterranean countries as well as the Netherlands; and guar gum, mostly from Pakistan, India, and Italy. The guar gum from the Mediterranean countries is a processed gum made from "splits" originating in Pakistan or India.

In addition to the designated water-soluble gums in TSUS 188.36 and in TSUSA 188.3810, -.20, -.40, and .50, there are some miscellaneous water-soluble gums in TSUSA 188.3870 as well as some miscellaneous latex gums and spirit-soluble gums and resins. Imports reported under the latter statistical breakout during 1963-68 averaged 17 million pounds, valued at $3.2 million annually. 1/ The big increase in imports shown in 1965 was due to a change in the classification of pinewood extract (crude pine gum taken from dead trees) to duty-free entry under this item rather than dutiable entry at 5 percent ad valorem under item 188.50 (C.I.E. 516/65). Imports of pinewood extract, all of which came from British Honduras, virtually ceased after 1965. Imports under TSUSA item 188.3870 in 1967, by principal sources, value, and principal items were as follows:

Source	Value (1,000 dollars)	Principal items in 188.3870 and type 1/
Brazil------	871	Massaranduba, balata and coquirana - latex
India-------	449	Ghatti and tamarind gums - water soluble
Guatemala---	278	Chiquibul gum - latex
Mexico------	241	Chilte-latex and mesquite - water soluble
Honduras----	202	Tuno and nispero gums - latex
Nicaragua---	166	Chiquibul gum - latex
Venezuela---	149	Pendare gum - latex
Iran--------	115	Frankincense resin - spirit soluble, and shiraz gum - water soluble
Thailand----	109	Benzoin resin - spirit soluble

1/ As estimated from a sample of entry papers.

1/ The total probably includes several million pounds of varnish resins properly classifiable for statistical purposes under TSUSA item 188.3865 (see separate summary on varnish resins).

U.S. exports

Export data for all the natural gums, resins (except rosin), balsams, and lacs are combined in one statistical class for which value alone is reported. Exports in the period 1965-68 were as follows:

Year	Value (1,000 dollars)	Principal markets
1965------	2,690	Canada, Mexico, Japan
1966------	2,951	Canada, Mexico, Japan
1967------	3,162	Canada, Japan, Mexico
1968------	3,755	Canada, Mexico, India

The value of exports at less than $4 million compares with imports of all natural gums, resins, balsams, and lacs of over $27 million in 1968. Exports are believed to be primarily processed articles in contrast to most of the imports which are in crude forms. Guar and locust bean gum are probably major export items and Canada is the major market.

Table 1.--Water-soluble gums and other gums and resins, not elsewhere enumerated: U.S. imports for consumption, by kinds, 1963-68

Year	Gum arabic	Guar	Locust bean gum	Tragacanth	Karaya	Other gums and resins, not specially provided for 1/
	Quantity (1,000 pounds)					
1963	22,160	34,062	8,460	1,604	10,110	12,090
1964	21,951	26,688	10,548	1,359	7,682	14,023
1965	25,085	38,067	9,731	1,326	9,061	36,474
1966	27,855	36,320	13,926	1,795	7,224	14,584
1967	32,268	21,207	13,147	3,731	7,202	14,071
1968	25,592	15,107	15,075	1,775	7,344	11,386
	Foreign value (1,000 dollars)					
1963	3,815	4,037	2,042	1,429	2,926	2,218
1964	3,970	4,070	2,266	1,584	2,545	2,953
1965	4,652	4,441	2,100	1,490	3,024	4,992
1966	5,392	4,621	2,768	2,077	2,135	3,047
1967	7,623	2,840	2,681	2,191	1,646	3,185
1968	5,682	2,098	3,154	2,587	1,748	2,654
	Unit value (cents per pound)					
1963	17	12	24	89	29	18
1964	18	15	21	117	33	21
1965	19	12	22	112	33	14
1966	19	13	20	116	30	21
1967	24	13	20	59	23	23
1968	22	14	21	146	24	23

1/ TSUSA item 188.3870. Data include some varnish resins that should have been tabulated under TSUSA item 188.3865 as well as some of the named water-soluble gums.

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

Table 2.--Water-soluble gums and other gums and resins not elsewhere enumerated: U.S. imports for consumption, by kinds, by principal sources, 1965, 1967, and 1968

(Quantity in thousands of pounds; value in thousands of dollars)

Kind	Quantity	Value	
		Total	By principal sources
		1965	
Gum arabic	25,085	4,652	Sudan, 4,604
Guar	38,067	4,441	Pakistan, 1,972; India, 1,683
Locust bean gum	9,731	2,100	Spain, 668; Italy, 556
Tragacanth	1,326	1,490	Iran, 1,487
Karaya	9,061	3,024	India, 2,994
Gums and resins, n.s.p.f	36,474	4,992	British Honduras, 1,806; Brazil, 1,202
		1967	
Gum arabic	32,268	7,623	Sudan, 7,226
Guar	21,207	2,840	Pakistan, 1,087; India, 1,033
Locust bean gum	13,147	2,681	Spain, 1,002; Italy, 468
Tragacanth	3,731	2,191	Iran, 2,150
Karaya	7,202	1,646	India, 1,617
Gums and resins, n.s.p.f	14,071	3,185	Brazil, 871; India, 449
		1968	
Gum arabic	25,592	5,682	Sudan, 5,436
Guar	15,107	2,098	Pakistan, 876; India, 431; Italy, 366; Spain, 209
Locust bean gum	15,075	3,154	Spain, 1,458; Portugal, 496; Italy, 460; Greece, 428
Tragacanth	1,775	2,587	Iran, 2,525
Karaya	7,344	1,748	India, 1,677
Gums and resins, n.s.p.f	11,386	2,654	Brazil, 549; Guatemala, 429, India, 295; Venzeula, 224

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

Commodity	TSUS item
Varnish gums and resins----------	188.38 (pt.)

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The entire U.S. consumption of natural varnish resins is supplied by imports. Consumption, except for cashew nut shell liquid, has been declining for several decades due to substitution of synthetic resins. The consumption of cashew nut shell liquid, in contrast, has increased sharply in the past two decades.

Description and uses

The natural varnish resins occasionally are referred to as gums. Technically, however, gums are polysaccharide polymers soluble in water, whereas resins are complicated mixtures of acids, resenes, and essential oils insoluble in water but generally soluble in alcohol or certain other organic solvents. The resins traditionally known as natural varnish resins include copals and damars (including East Indias), and a group of miscellaneous resins referred to in greater detail later in this section. These resins are collected principally in tropical regions, either as exudations from living trees or from the earth as large fossilized or semifossilized pieces of resin that are the remains of dead and extinct trees, the other parts of which have long since disappeared. Such products are referred to as natural varnish resins because they are used principally in varnishes and other surface coatings.

This summary also includes cashew nut shell liquid, which--although not a typical varnish resin--is usually classed with them because its phenolic constituents, anacardic acid and cardol, will polymerize under heat or chemical treatment into a resin suitable for use in varnish. Two important natural resins used in varnishes, rosin (colophony) and shellac, are not included in this summary (see TSUS items 188.50 and 188.10, respectively).

The copals in general are characterized by high acidity. Congo copal, insoluble in its raw state, is generally cooked in oils. Virtually all of it comes from the Congo, although small amounts are obtained from trees in other areas of Africa. The alcohol soluble Manila copals are obtained from living trees which grow in Indonesia

and the Philippines. Kauri copal, a fossil resin obtained from New Zealand, is soluble in alcohol, hydrocarbons, and drying oils.

Damars are a group of resins obtained from living trees growing in Malaysia and Indonesia. This class also includes the resins referred to as East Indias. Damars and East Indias are soluble in turpentine and hydrocarbons and insoluble in alcohol; this distinguishes them from the copals which are mostly soluble in alcohol. Their uses are quite similar to those of copals. Resins in both groups are used to make varnishes, lacquers, enamels, adhesives, inks, paper sizing, and a variety of other products.

The miscellaneous group of natural varnish resins includes accroides, mastic, sandarac, dragon's blood, and elemi resins. Accroides, also known as accaroid resin, Yacca and grass tree resin, is obtained from a number of treelike plants belonging to the lily family that grow in Australia. They differ from the other natural varnish resins in that they contain quantities of coumaric and cinnamic acids and, therefore, are closely related to the balsams. Mastic is a clear resin obtained from the mastic tree, which grows on the Greek island of Chios. It is used in high-quality varnishes and artists' paints. Sandarac is a pale, brittle, transparent resin obtained from coniferous trees that grow in Algeria and Morocco. It is used in lacquers and varnishes for coating paper, leather, and metal. Dragon's blood embraces a group of red resins obtained from trees that grow in Malaysia and Africa. They are used in mahogany varnishes, gold lacquers, and for staining marble. Elemi resin is a sticky oleoresin (high essential oil content) with a spicy aroma resembling that of balsams; it is collected from trees native to the Philippines. In addition to use in varnish, elemi resins are used as plasticizers, as a base in perfumery, and in adhesives, cements, and inks.

Cashew nut shell liquid is extracted from the cellular structure of the shell of the cashew nut. It is obtained as a byproduct of cashew nut shelling. Resins derived from cashew nut shell liquid are used in the manufacture of automobile brake linings and clutch facings, plastic tapes, acid and alkali resistant adhesives and floor coverings, and in the compounding of certain types of synthetic rubber. Other important uses are in the making of special lubricants, paint, varnish and lacquer, and in filling and sealing compounds for electrical equipment.

U.S. tariff treatment

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
188.38 (pt.)	Other gums, gum resins, and resins, not specially provided for.	Free

The duty-free treatment of most natural varnish resins was provided for under paragraph 1686 of the original Tariff Act of 1930 and bound in subsequent trade agreements.

U.S. consumption and imports

All U.S. consumption of the resins included in this summary is supplied by imports. With the exception of cashew nut shell liquid, the quantity of the natural varnish resins imported in recent years is but a small fraction of the level of imports several decades ago. The natural varnish resins have been largely replaced by synthetic resins. According to trade information, annual average imports of natural varnish resins, other than cashew shell liquid, totaled about 3 million pounds during 1963-68, compared with an average of 33 million pounds during the 1930's. Actual imports and consumption in the last few years are larger than shown in tables 1 and 2 in that imports of some varnish resins are known to be recorded under the TSUSA statistical breakout for miscellaneous gums and resins. Imports of the natural varnish resins enter mostly from Southeast Asia and Africa.

In contrast to the decline in imports of natural varnish resins, imports of cashew nut shell liquid, which were less than 1 million pounds annually until the late 1930's, increased to an annual average of over 17 million pounds during 1964-68. The upward trend in the consumption of cashew nut shell liquid is due particularly to its increased use as a friction modifier in the manufacture of brake linings, industrial belting, and clutches. Imports of cashew nut shell liquid enter largely from Mozambique, India, and Brazil--countries that shell cashew nuts.

Foreign production and trade

The resins typically referred to as varnish resins are collected either from living trees or fossils largely on an unorganized basis and are of minor commercial importance to most of the exporting countries.

India, Mozambique, and Brazil are the only important producers of cashew nut shell liquid. Much of the Indian production of the liquid is extracted from nuts imported in the shell from other countries--principally Mozambique and Tanzania. About two-thirds of the cashew nuts processed by India must be imported as its domestic crop is not large enough to supply its large hand-shelling industry. Successful development of mechanical shellers for use in Africa and Brazil threatens the Indian dominance in cashew shelling. The byproduct shell liquid is recovered from only a small part of the shells; hence, there is potential for a big expansion in production should demand warrant the recovery of more oil. Declining prices since 1965 have probably discouraged expansion of production.

Table 1.--Natural varnish resins (including cashew nut shell liquid): U.S. imports for consumption, by kinds, 1963-68

Year	Natural varnish resins 1/	Cashew nut shell liquid
	Quantity (1,000 pounds)	
1963	3,259	2/ 12,468
1964	3,942	2/ 15,998
1965	2,161	15,698
1966	1,225	16,106
1967	1,275	21,639
1968	2,035	20,232
	Value (1,000 dollars)	
1963	438	2/ 1,327
1964	810	2/ 2,166
1965	431	2,266
1966	228	1,895
1967	143	1,847
1968	236	1,300
	Unit value (cents per pound)	
1963	14.8	10.6
1964	20.5	13.5
1965	19.9	14.4
1966	18.6	11.8
1967	11.2	8.5
1968	11.6	6.4

1/ Imports are somewhat larger than indicated in that some of the entries shown under TSUSA statistical breakout 188.3870 are known to be varnish resins (see summary on water soluble gums). Trade information indicates average annual imports of about 3 million pounds during the years 1963-68 with not much decline since 1963.

2/ Estimated. Imports of cashew nut shell liquid were not separately reported from Aug. 31, 1963, to Sept. 1, 1964.

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

Note.--There is no domestic production of the products included in this table.

Table 2.--Natural varnish resins (including cashew nut shell liquid): U.S. imports for consumption, by principal sources, 1965-68

(Quantity in thousands of pounds; value in thousands of dollars)

Kind	Quantity	Value	
		Total	Principal sources 1/
		1965	
Natural varnish resins	2,161	431	Malaysia, 110.
Cashew nut shell liquid	15,698	2,266	India, 1,592; Brazil, 289; Mozambique, 278.
		1966	
Natural varnish resins	1,225	228	Malaysia, 35.
Cashew nut shell liquid	16,106	1,895	India, 1,072; Mozambique, 416; Brazil, 247.
		1967	
Natural varnish resins	1,275	143	Malaysia, 51.
Cashew nut shell liquid	21,639	1,847	Mozambique, 924; India, 610; Brazil, 271.
		1968	
Natural varnish resins	2,035	236	Malaysia, 52; Philippine Republic, 49; Congo, 28.
Cashew nut shell liquid	20,232	1,300	Mozambique, 475; Brazil, 448; India, 304.

1/ Statistics showing Nicaragua as a chief source of varnish resins in 1965 and 1966 appear to be erroneous and are not included in this table; natural varnish resins are not found in the Americas.

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

Commodity	TSUS item
Turpentine, gum and spirits of, and rosin----------	188.50

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Virtually all U.S. consumption of turpentine and rosin is supplied by U.S. production. The United States accounts for one-third to one-half of the world's exports of rosin, but its share of total world exports of turpentine is somewhat smaller and is declining.

Description and uses

This summary includes turpentine (spirits of turpentine) and rosin, the most important of the products traditionally referred to as naval stores. It also includes oleoresins from pine and certain other living trees. Pine oleoresin is known as turpentine gum, crude pine gum, or simply gum. Its only significant use is for further processing into gum naval stores. For some of the other naval stores and related products, refer to the summaries on pitch and tar (item 493.45), tall oil (item 493.82) and bow rosin (item 726.15).

Spirits of turpentine is a volatile colorless liquid consisting primarily of a number of terpene hydrocarbons. Rosin, also called colophony, is a brittle, solid, translucent natural resin. Spirits of turpentine and rosin both are known commercially according to the three most important methods by which they are produced:

(1) Gum spirits of turpentine (gum turpentine) and gum rosin are produced from turpentine gum (crude pine gum). The crude gum is obtained by tapping living pine trees and is processed into gum turpentine and gum rosin by distillation. Chemically, the term gum in these instances is a misnomer as the crude substance is actually an oleoresin (a resin suspended in an essential oil). Technically, gums are polysaccharide polymers which are dispersible in water (see summary on water-soluble gums, TSUS items 188.36 and 188.38).

(2) Steam-distilled wood turpentine and wood rosin are produced by the steam distillation of the oleoresin which develops in aged pine stumps. The oleoresin from stumps, roots, and "downwood" of dead aged pine trees is known as pinewood or resin extract and is provided

for in TSUS item 188.38 in accordance with a decision by the Bureau of Customs in April 1965 (C.I.E. 516/65).

(3) Sulfate turpentine and tall oil rosin are produced as by-products of the sulfate woodpulp process. The turpentine is condensed from the vapors given off from the cooking pulp. Tall oil rosin is obtained from crude tall oil, a dark brown mixture of fatty and resin acids, and neutral materials, liberated by acidification of soap skimmings from the pulp liquor.

More than four-fifths of all turpentine consumed in the United States in recent years has been used by the chemicals and pharmaceuticals industries either directly or as products manufactured from it in the production of adhesives, plastics, disinfectants, insecticides, cleaners, rubber, menthol, polishes, liniments, and flavoring and perfume materials. The remaining turpentine, amounting to less than one-fifth, is sold through retail outlets primarily for use as a paint thinner. Paint, varnish, and lacquer manufacturers, once major users of turpentine, now use less than 1 percent of the turpentine spirits consumed industrially. Spirits of turpentine obtained from any of its three primary sources are interchangeable in some but not all uses since the chemical composition of the turpentines vary. In certain uses they are directly competitive with each other. This is true also of rosin obtained from each of those three sources.

In recent years over one-third of all rosin utilized in the United States has been reported as used in paper and paper sizing. Actual use in paper sizing is materially higher in that a significant portion of the reported usage in chemicals is ultimately used in paper manufacture. Other major uses are in manufacture of natural and synthetic rubber, adhesives, printing ink, paint, varnish, and other protective coatings, and chewing gum.

U.S. tariff treatment

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
188.50	Turpentine, gum and spirits of, and rosin--	5% ad val.

The above rate was provided for in the original Tariff Act of 1930, under paragraph 90. The rate was reduced to 2-1/2 percent ad valorem pursuant to a concession granted by the United States in a bilateral trade agreement with Mexico, effective January 1943. The

5 percent rate was restored on January 1, 1951, upon termination of the agreement with Mexico.

U.S. consumption

Annual domestic consumption of turpentine spirits ranged from 28 million gallons to 33 million gallons during 1963-68 (table 2). Consumption was about 12 percent above the average of 28 million gallons for the preceding 5-year period. 1/ Rosin consumption ranged from 700 million pounds to 740 million pounds in the 1963-68 period, not much changed from the average of 719 million pounds in the 1958-62 period (table 3).

U.S. producers

Domestic production of naval stores takes place primarily in the Southeastern States along the Atlantic and Gulf coasts where there are large forests of slash pine and long leaf pine trees with a high yield of oleoresin. During 1966 crude pine gum was collected from 25 million tree faces on trees owned by about 2,800 producers. Collection of crude pine gum requires a large amount of hand labor. However, recent developments in stimulating and prolonging gum flow and in facilitating collection are reducing the amount of labor required and improving the quality of the gum. The scale of operation ranges from small producers who work independently with no hired help to large producers who employ hundreds of laborers. The crude gum is taken to 16 central processing plants (most of which are in Georgia) for cleaning and steam distilling into gum turpentine and gum rosin.

The production of so-called "steam-distilled" wood naval stores is highly mechanized, with bulldozers, mechanical loaders, and trucks used to handle the heavy stumps. Because this equipment requires a large capital investment, there are relatively few producers. The oleoresin is extracted and distilled by about a half dozen concerns. Most of them are manufacturers of chemicals and a wide range of other products, as well as turpentine spirits and rosin. The three major producers are also major producers of sulfate naval stores.

Most of the sulfate-paper mills that produce sulfate turpentine and tall oil (from which tall oil rosin is recovered) are located in

1/ Statistics in this summary are for years beginning Apr. 1; however, those for imports of crude pine gum in table 1 and exports of rosin by countries in table 6 are on a calendar-year basis.

the Southern States. Several kraft-paper mills in the North and in the Pacific Northwest also recover sulfate turpentine and tall oil from pine, fir, and spruce tree pulp, but the yield is not nearly as large as from southern pines. Production of rosin from tall oil began commercially in 1949. In 1969 there were 15 fractionating plants, operated by 9 companies, mostly located in the Southern States, engaged in separating rosin from tall oil.

U.S. production

Production of crude turpentine gum declined from 327 million pounds to 121 million pounds annually during 1963-68, reflecting the increasing problem of the high-labor-cost gum naval stores to compete with other products, especially with sulfate naval stores produced as byproducts of the sulfate-paper industry (table 1). Production of all types of turpentine combined has been relatively stable with an annual average of 33 million gallons in 1963-68. In the same period annual production of sulfate turpentine increased from 18.8 million to 23.7 million gallons (table 4). Output of both steam-distilled wood turpentine and gum turpentine declined.

Total production of rosin averaged about 1.0 billion pounds annually during 1963-68 and was approximately the same as in the preceding 5-year period. As with turpentine, rosin production also experienced a significant shift in the source of the product. Output of tall oil rosin increased from 275 million pounds in 1963 to 371 million pounds in 1968 (table 5). Annual production of steam-distilled wood rosin, although still accounting for the largest share of the total, declined from 571 million pounds to 499 million pounds during 1963-68, and annual production of gum rosin declined sharply from 237 million pounds to 89 million pounds.

Price-support operations

The U.S. Department of Agriculture conducts a price-support program for gum naval stores. Prices of crude pine gum are supported through nonrecourse loans on gum rosin to producers by the Commodity Credit Corporation (CCC). Although gum spirits of turpentine have not been under the price-support program since 1961, the prospective market price of turpentine is considered in establishing the crude pine gum support price and deriving the loan rate for rosin.

Primarily as a result of increasing overall rosin production and loss of markets to other products, market prices for gum rosin fell below the support price in 1962 and CCC began acquiring most of the domestic output of gum rosin. From 58 million pounds on March 31, 1962, CCC holdings of gum rosin rose to 421 million pounds on

March 31, 1966 (table 3). In 1966, to prevent continued accumulation of gum rosin stocks, the CCC began selling rosin in the export market at less than domestic prices. By the end of the 1968 marketing year (Mar. 31, 1969), CCC stocks had been reduced to 231 million pounds. Substantial further reduction of CCC stocks continued in the 1969 marketing year as prices rose high enough to enable an expansion of CCC sales for unrestricted distribution.

U.S. exports

The United States, which was once the world's leading exporter of turpentine, imported about as much as it exported in 1968. Exports of turpentine declined from 8 million gallons in 1963 to 2 million gallons in 1968. The decrease in exports was due chiefly to decreasing production and increasing consumption in the United States. Canada and West Germany were the principal markets for U.S. exports of turpentine spirits in 1968.

Exports of rosin, which are far greater than exports of turpentine, increased irregularly from 252 million pounds in 1963 to 366 million pounds in 1967 and declined slightly in 1968. The increase in exports reflected increased commercial sales of tall oil rosin as well as CCC sales of gum rosin. In 1968 U.S. exports of rosin went chiefly to Japan, West Germany, the United Kingdom, the Netherlands, and Canada (table 6).

Data on U.S. exports of crude turpentine gum are not available, but such exports are believed to be nil.

U.S. imports

U.S. imports of naval stores have generally been small relative to domestic production. The bulk of the reported gum imports entered under item 188.50 during 1963-65 consisted of pinewood extract 1/ from a plant established in British Honduras by a large U.S. processor of naval stores. This plant proved unprofitable and was closed in 1965. Each year there are a few thousand pounds of imports of a turpentine gum known as "Venice turpentine" from Italy and Austria. It is an expensive oleoresin obtained from larch trees in the Tyrol region and is used as a medicinal. It accounts for all of the small gum imports shown in 1966 and 1967 (table 1).

1/ Pinewood extract is presently classifiable under item 188.38--see description and uses section of this summary.

Imports of turpentine spirits averaged about 1 million gallons annually during 1963-68 with an upward trend. New domestic uses for turpentine have made the U.S. market attractive to European turpentine. Prior to 1968, virtually all imports of turpentine entered from Mexico and were consumed in the South-central and Southwestern States, where the Mexican product has a transportation advantage over the domestic product from Georgia and Florida. Annual imports of rosin, which come almost exclusively from Mexico, declined from 2.9 million pounds in 1963 to 0.4 million pounds in 1968.

Foreign production and trade

In 1965 total world production of spirits of turpentine amounted to about 80 million gallons and total rosin output amounted to over 2.2 billion pounds. The United States was by far the leading producer of both, accounting for about two-fifths of the total production of turpentine and almost one-half of that of rosin. The Soviet Union was the second leading producer and supplied about one-sixth of the world's output of both turpentine and rosin. Mainland China, Portugal, France, Mexico, Greece, Spain, Sweden, and Finland also produced significant quantities of naval stores in 1965.

The leading producing countries were also the leading exporters with the exception of the Soviet Union, which consumed most of the naval stores that it produced, and France, which shifted from an export to an import basis. Western Europe was the principal destination of the world's exports of naval stores and in 1965 imported three-fourths of the turpentine and two-thirds of the rosin entering world trade. The United Kingdom, West Germany, the Netherlands, and Italy were the leading importers of naval stores in Western Europe. Japan was the principal importer of naval stores outside Western Europe in 1965. Canada imported significant quantities of turpentine and rosin, but virtually all of such imports were supplied by the United States.

Table 1.--Turpentine gum (crude pine gum): U.S. production and imports for consumption, 1963-68

Year	Production 1/	Imports		
		Quantity	Value	Unit value 2/
	1,000 pounds	1,000 pounds	1,000 dollars	Cents per pound
1963	327,160	3/ 38,939	4/	4/
1964	287,731	3/ 15,510	1,070	6.9
1965	261,435	3/ 6,196	552	8.9
1966	203,433	7	7	92.8
1967	157,795	5	4	86.1
1968	120,777	5/	5/	5/

1/ Year beginning Apr. 1.
2/ Calculated on unrounded figures.
3/ Estimated for 1963; statistics not available. The imports as shown here for 1963-65 are known to have consisted mostly of pinewood extract (oleoresin obtained from dead pine trees and stumps). In the spring of 1965 the Bureau of Customs determined that pinewood extract was free of duty as a gum or resin under TSUS item 188.38.
4/ Not available.
5/ Reported entries of 3,224 thousand pounds, valued at 232 thousand dollars known to be turpentine rather than turpentine gum.

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

Note.--Imports entered principally from British Honduras before 1966. Imports in 1966 and 1967 came mostly from Italy and Austria and consisted of "Venice turpentine"--an oleoresin obtained from the European larch and used in medicinals.

Table 2.--Spirits of turpentine 1/: U.S. production, imports for consumption, exports of domestic merchandise, yearend stocks, and apparent consumption, years beginning April 1, 1963-68

Year beginning April 1--	Production	Imports	Exports	Year-end stocks	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity (1,000 gallons)					
1963	33,676	2/ 753	8,163	9,803	28,105	2.7
1964	33,955	766	4,245	6,862	33,417	2.3
1965	35,033	937	2,256	7,155	33,421	2.8
1966	33,275	947	1,823	7,014	32,540	2.9
1967	31,397	1,038	1,715	5,270	32,464	3.2
1968	32,612	3/ 1,607	1,962	4,353	33,174	3.5
	Value (1,000 dollars)					
1963	4/	2/ 137	2,827	4/	4/	4/
1964	4/	254	1,811	4/	4/	4/
1965	4/	408	1,166	4/	4/	4/
1966	4/	481	956	4/	4/	4/
1967	4/	524	884	4/	4/	4/
1968	4/	3/ 1,101	1,078	4/	4/	4/
	Unit value (cents per gallon) 5/					
1963	4/	18.2	34.6	4/	4/	4/
1964	4/	33.2	42.7	4/	4/	4/
1965	4/	43.6	51.7	4/	4/	4/
1966	4/	50.8	52.5	4/	4/	4/
1967	4/	50.5	51.5	4/	4/	4/
1968	4/	68.5	54.9	4/	4/	4/

1/ Includes gum turpentine, steam-distilled turpentine, and sulfate turpentine.

2/ Partly estimated. Imports were not separately reported for last 4 months of the calendar year 1963.

3/ Includes 450 thousand gallons, valued at 232 thousand dollars, reported in error as turpentine gum.

4/ Not available.

5/ Calculated on unrounded figures.

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

Note.--Imports are virtually all from Mexico; exports are primarily to Canada, Netherlands, and Germany.

Table 3.--Rosin 1/: U.S. production, imports for consumption, exports of domestic merchandise, yearend stocks, and apparent consumption, years beginning April 1, 1963-68

Year beginning April 1--	Production	Imports	Exports	Yearend stocks		Apparent consumption
				CCC controlled gum rosin	Total	
	Quantity (million pounds)					
1963	1082.8	2/ 2.9	251.8	264.1	488.5	702.7
1964	1046.6	2.2	251.7	353.9	560.8	724.8
1965	1073.9	.3	280.8	421.4	639.3	714.9
1966	1017.2	.5	342.3	406.3	592.1	722.6
1967	971.7	.4	366.3	334.0	497.1	700.8
1968	959.7	.4	335.0	231.1	381.7	740.5
	Value (1,000 dollars)					
1963	3/	2/ 207	26,489	3/	3/	3/
1964	3/	183	24,999	3/	3/	3/
1965	3/	28	27,322	3/	3/	3/
1966	3/	38	30,566	3/	3/	3/
1967	3/	31	32,095	3/	3/	3/
1968	3/	30	30,954	3/	3/	3/
	Unit value (cents per pound) 4/					
1963	3/	7.1	10.5	3/	3/	3/
1964	3/	8.3	9.9	3/	3/	3/
1965	3/	8.3	9.7	3/	3/	3/
1966	3/	8.2	8.9	3/	3/	3/
1967	3/	8.3	8.8	3/	3/	3/
1968	3/	8.3	9.2	3/	3/	3/

1/ Includes gum rosin, steam-distilled rosin, and tall oil rosin.
2/ Partly estimated. Imports were not separately reported for last 4 months of calendar year 1963.
3/ Not available.
4/ Calculated on unrounded figures.

Source: Production and stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Note.--Imports are virtually all from Mexico; exports by countries are shown in table 6 on a calendar year basis.

Table 4.--Spirits of turpentine: U.S. production, by type, years beginning April 1, 1963-68

(In thousands of gallons)

Year beginning April 1--	Gum	Steam distilled	Sulfate	Total
1963	7,026	7,874	18,776	33,676
1964	5,979	7,872	20,104	33,955
1965	5,568	8,432	21,033	35,033
1966	4,211	7,727	21,337	33,275
1967	3,387	7,023	20,987	31,397
1968	2,520	6,430	23,658	32,608

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

Table 5.--Rosin: U.S. production, by type, years beginning April 1, 1963-68

(In thousands of pounds)

Year beginning April 1--	Gum	Steam distilled	Tall oil	Total
1963	237,282	570,986	274,524	1,082,792
1964	202,974	538,912	304,741	1,046,627
1965	186,797	561,371	325,728	1,073,896
1966	141,110	512,548	363,574	1,017,232
1967	116,167	501,660	353,907	971,734
1968	88,941	499,283	371,467	959,691

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

Table 6.--Rosin 1/: U.S. exports of domestic merchandise, by principal markets, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Japan	52,500	54,636	48,672	63,053	90,170	85,245
West Germany	52,683	61,784	56,663	55,609	67,439	83,101
United Kingdom	36,143	44,256	43,198	57,536	53,253	47,141
Netherlands	24,065	24,834	26,045	33,841	37,972	59,041
Canada	21,941	16,293	25,440	29,233	30,179	32,197
Italy	15,947	11,951	13,010	19,531	19,819	8,093
All other	44,927	57,107	43,235	64,766	60,017	76,813
Total	248,206	270,861	256,263	323,569	358,849	391,631
	Value (1,000 dollars)					
Japan	4,894	4,736	4,056	4,984	6,538	6,653
West Germany	5,191	6,168	5,453	5,149	5,905	7,504
United Kingdom	3,861	4,635	4,132	5,690	4,095	4,939
Netherlands	2,727	2,620	2,729	3,389	3,597	5,715
Canada	2,309	2,284	2,484	2,768	2,719	3,012
Italy	2,042	1,489	1,514	1,889	1,890	786
All other	5,081	5,077	4,654	6,720	5,595	6,997
Total	26,105	27,009	25,022	30,589	30,339	35,606
	Unit value (cents per pound)					
Average, total, all countries	10.5	10.0	9.8	9.5	8.5	9.1

1/ Includes gum rosin, steam-distilled rosin, and tall oil rosin.

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

Commodity	TSUS item
Evergreen Christmas trees----------	192.10

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Domestic production of evergreen Christmas trees supplied approximately three-fourths of U.S. consumption in 1963-68; imports from Canada supplied nearly all of the remainder. U.S. exports of evergreen Christmas trees have been small.

Description and uses

The Christmas tree is a traditional form of decorative expression displayed during the Christian religious holidays in December. It is estimated that about 70 percent of the families in the United States use evergreen Christmas trees and nearly all such families procure their trees during the period December 10-24. About 55 percent of these trees range from 4.5 to 7.0 feet in height, while an additional 25 percent consist of the so-called table models, less than 4 feet in height. While many types of conifers are used as Christmas trees, the pines and firs predominate. Of all types, the most popular varieties are Scotch and Norway pine, balsam and Douglas fir, Eastern red cedar, and black spruce and white spruce.

Most Christmas trees are marketed in their natural or unprocessed condition. Some Christmas trees, however, are chemically treated (see following paragraph) to retain freshness, to prevent the spread of disease or insects, and to decrease the danger of fire. Trees grown in certain areas of the United States are under quarantine because of gypsy moth infestation and Christmas trees taken from such areas must be inspected and certified before being shipped to other areas. Several States and some cities require fire-retardant treatment before Christmas trees can be sold within their areas.

Only natural Christmas trees which have the root system cut off are included in this summary. Live trees suitable for planting after being used as Christmas trees are provided for in TSUS item 125.80 as live plants suitable for planting, not specially provided for. Natural Christmas trees treated with clear chemicals for purposes of preservation or fire prevention, which treatment does not materially affect their physical appearance, are classifiable as evergreen Christmas trees under item 192.10. Natural Christmas trees that have been

colored or chemically treated so as to materially change their physical appearance are no longer considered as evergreen Christmas trees and are classifiable under TSUS item 748.32 (C.I.E. 425/52).

Artificial trees made wholly or almost wholly of plastics are provided for in TSUS item 748.20 and artificial trees of other materials are included under TSUS item 748.21. The Bureau of Customs, however, has held certain artificial Christmas trees (including evergreen types) to be Christmas ornaments under item 772.97 (C.I.E. 969/65, 1014/65, 1978/66). In recent years there has been an increasing number of artificial Christmas trees sold since artificial Christmas trees such as those made of aluminum can be stored for reuse.

U.S. tariff treatment

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
192.10	Evergreen Christmas trees	Free

This rate has been bound since 1951 as a result of a concession granted by the United States in the General Agreement on Tariffs and Trade.

U.S. consumption

During the period 1955-64 the estimated annual U.S. consumption of Christmas trees increased from 37.8 million trees in 1955 to 43.5 million trees in 1962, and then declined to 41.0 million trees in 1964, the most recent year for which statistics are available (table 1).

U.S. producers and production

Christmas trees are produced in every State in the Union with Michigan, Minnesota, and Wisconsin producing about 32 percent of the U.S. output; the Pacific Coast and Northwest (including Alaska and Hawaii) about 26 percent; and the Northeast and the Middle Atlantic States about 18 percent. Production of evergreen Christmas trees increased from 21.0 million trees in 1940 to 33.4 million in 1962 and then declined slightly to 33.0 million in 1964. The principal species were as follows: Scotch pine, 27 percent; Douglas fir, 22 percent; balsam fir, 12 percent; black spruce, 7 percent; eastern red cedar, 7 percent; Norway pine, 6 percent; white spruce, 3 percent; white

fir, 2 percent; white pine, 2 percent; Norway spruce, 2 percent; Virginia pine, 1 percent; and grand fir, 1 percent. In 1964 about 44 percent of the domestically grown Christmas trees came from tree plantations.

U.S. exports

Statistics on U.S. exports of Christmas trees are not separately reported but exports are believed to be small, probably not exceeding $100,000 in value annually. Such exports are believed to go to Canada, the Caribbean area, and Latin America.

U.S. imports

During 1955-68 annual imports of evergreen Christmas trees declined from 12.4 million trees in 1955 to about 6.8 million trees in 1967 and 1968. On the average they appeared to be equivalent to about 23 percent of domestic consumption and 30 percent of production. Nearly all imports of Christmas trees are from Canada (table 2) of which about 70 percent of such imports are fir trees other than Douglas fir (almost entirely balsam fir). The remainder is divided about equally between Douglas fir and trees other than fir (believed to be nearly all Scotch pine). Bulkiness, perishability, and transportation costs tend to preclude other countries from supplying natural Christmas trees to the United States.

Table 1.--Evergreen Christmas trees: U.S. production, imports for consumption, and apparent consumption, 1955 and 1962-68

(Quantity in thousands of trees; value in thousands of dollars)

Year	Production	Imports	Apparent consumption 1/	Ratio (percent) of imports to consumption
	Quantity			
1955	25,400	12,410	37,810	32.8
1962	33,400	10,104	43,504	23.2
1963	2/	8,761	2/	2/
1964	33,000	7,968	40,968	19.4
1965	2/	8,049	2/	2/
1966	2/	7,536	2/	2/
1967	2/	6,744	2/	2/
1968	2/	6,768	2/	2/
	Value			
1955	12,750	5,659	3/	3/
1962	22,500	6,471	3/	3/
1963	2/	5,986	3/	3/
1964	27,800	5,396	3/	3/
1965	2/	5,905	3/	3/
1966	2/	5,481	3/	3/
1967	2/	5,095	3/	3/
1968	2/	5,427	3/	3/

1/ Consumption figures do not take into account U.S. exports of Christmas trees which are estimated to be less than 100,000 trees annually.

2/ Not available.

3/ Not calculated since values of production and imports not strictly comparable.

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

Table 2.--Evergreen Christmas trees: U.S. imports for consumption from Canada, by type, Sept.-Dec. 1963 and 1964-68

Type	Sept.-Dec. 1963	1964	1965	1966	1967	1968
	Quantity (1,000 trees)					
Douglas fir	1,476	1,300	1,309	1,209	1,263	1,192
Other fir	4,734	4,741	5,495	4,937	4,211	3,973
Other than fir	2,404	1,923	1,245	1,390	1,270	1,603
Total	8,614	7,964	8,049	7,536	6,744	6,768
	Value (1,000 dollars)					
Douglas fir	931	811	880	792	872	851
Other fir	3,022	2,951	3,642	3,267	2,903	2,971
Other than fir	1,850	1,633	1,383	1,422	1,320	1,605
Total	5,803	5,395	5,905	5,481	5,095	5,427
	Unit value (per tree)					
Douglas fir	$0.63	$0.62	$0.67	$0.66	$0.69	$0.71
Other fir	.64	.62	.66	.66	.69	.75
Other than fir	.77	.85	1.11	1.02	1.04	1.15
Average	.67	.68	.73	.73	.76	.80

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

Note.--Statistics for 1964 under "other than fir" include 4,330 trees, valued at $844 entered from Mexico the only instance where imports entered from a country other than Canada.

Commodity	TSUS item
Citrus juices unfit for beverage purposes	192.15

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is a net importer of citrus juices unfit for beverage purposes. There is no known domestic production of a comparable commodity. Exports are not separately reported but are believed to be negligible or nil.

Comment

The citrus juices considered herein are classified as "unfit for beverage purposes" because they require further processing before they are suitable for consumption by human beings. These juices consist almost entirely of unconcentrated lime juice (imported in barrels) which, in its imported condition, is unfit for beverage purposes because of (1) its treatment with sulfur dioxide, a preservative, or (2) its settled condition (requiring filtration). After entry, such imported lime juice is processed by aeration to remove the sulfur dioxide, or filtered to remove sediment. Frequently the juice is pasteurized to kill certain microorganisms.

After processing, the lime juice is used in the manufacture of certain lime-type soft drinks and prepared cocktail mixes. It is also bottled as lime juice for use in mixing lime-type alcoholic cocktails.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) of citrus juices unfit for beverage purposes (item 192.15) is 1.25 cents per pound; this rate has been the same since the effective date of the TSUS, August 31, 1963. This item was not one on which the United States granted a concession in the recently concluded sixth (Kennedy) round of trade negotiations conducted under the General Agreement on Tariffs and Trade.

The ad valorem equivalent of the specific rate of duty on imports in 1968 was 10.9 percent.

During the period 1963-68 imports of citrus juices unfit for beverage purposes decreased regularly from 550,000 pounds in 1963 to

235,000 pounds in 1968. The foreign value decreased from $58,000 in 1963 to $27,000 in 1968 (see table).

There is no known production of lime juice similar to or directly competitive with the present product in its imported condition. There are no known exports of citrus juice unfit for beverage purposes.

Citrus juices unfit for beverage purposes: U.S. imports for consumption, by sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Trinidad	85	166	115	67	177	82
Leeward and Windward Islands	298	160	206	106	14	44
Mexico	4	16	14	14	70	72
Dominican Republic	136	5	-	54	-	23
Jamaica	27	7	15	18	18	14
Libya	-	-	3	-	-	-
Total	550	354	353	259	279	235
	Value (1,000 dollars)					
Trinidad	9	15	16	8	25	12
Leeward and Windward Islands	32	19	25	13	1	6
Mexico	1	1	2	2	5	4
Dominican Republic	14	1/	-	6	-	3
Jamaica	2	1	2	2	3	2
Libya	-	-	1	-	-	-
Total	58	36	46	31	34	27

1/ Less than $500.

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

Note.--There is no domestic production or exports of citrus juice unfit for beverage purposes.

December 1969
1:14

Commodity	TSUS item
Cut flowers and articles made from such flowers or other fresh plant parts--------	192.20

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

During the period 1963-68, the estimated annual average wholesale value of cut flowers produced in the United States was $181 million. The value of imported cut flowers increased from $102,000 in 1963 to $802,000 in 1968. Exports, mainly to Canada, averaged about $1.6 million annually in the period 1963-68. The trade in cut flowers is somewhat limited by their perishability.

Description and uses

The flowering plants from which the cut flowers in this summary are obtained are usually grown by florists for this particular purpose. There are probably more than 200 different types of fresh cut flowers in the trade of the United States. Commercially the more important cut flowers are carnations, chrysanthemums, gladioli, roses, and orchids. Other important cut flowers include asters, gardenias, lilies, peonies, snapdragons, and stocks. Cut flowers are sold singly or in bunches of various sizes, as well as in corsages, bouquets, wreaths, sprays, and other floral arrangements. Cut natural flowers, dried, bleached, colored, or chemically treated, are discussed in the summary on TSUS item 748.25.

Funerals and memorials provide the biggest market for cut flowers, accounting for about 45 percent of domestic retail sales; gifts of flowers for hospital patients and flowers for weddings account for another 30 percent. All other occasions or purposes, including religious and memorial holidays, account for about 25 percent of total cut flower sales.

Articles made from fresh plant parts other than flowers consist primarily of wreaths made from fresh plant material, such as holly and pine. (See summary on item 193.25 as to fresh plant parts not made up into articles, such as fresh holly cuttings not suitable for planting.) Production, imports, and exports of articles made from fresh plant parts are not separately reported; it is believed, however, that such articles are of much lesser economic importance than cut flowers.

U.S. tariff treatment

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
192.20	Cut flowers, fresh; bouquets, wreaths, sprays, or similar articles made from such flowers or other fresh plant parts.	10% ad val.

This rate, which became effective on July 1, 1963, reflects the final stage of a concession negotiated under the General Agreement on Tariffs and Trade in 1960-62.

Articles, including wreaths, made from fresh plant parts, were classified prior to December 7, 1965, in TSUS item 799.00, dutiable at 10 percent ad valorem; they were provided for at the same rate in TSUS item 192.20 pursuant to the Tariff Schedules Technical Amendments Act of 1965 (P.L. 89-241).

The articles covered in this summary are subject to plant quarantine regulations, which require inspection and in certain cases fumigation before entry.

U.S. consumption

The estimated wholesale value of U.S. consumption of cut flowers increased from $145 million in 1959 to $196 million in 1968 (see table). The major consuming areas for cut flowers in the United States are concentrated around the large population centers.

Fresh cut flowers are highly perishable, making their growth and marketing a high risk business. Sales of certain varieties vary considerably with changes in consumer tastes. Sales of live potted plants and artificial flowers compete with the sale of cut flowers to some extent depending upon consumer preference and price relationships. The practice in recent years of honoring the deceased through donations to worthy causes has made some inroads on the use of fresh flowers and floral articles as expressions of sympathy.

U.S. producers and production

There are approximately 15,000 commercial growers that produce cut flowers in the United States. Sales of cut flowers represent

about one-half of the total income of large growers; unpotted and potted flowers, plants, and shrubs represent most of the remainder.

While flowers for cutting are commercially grown in significant quantities in all of the 50 States, 1959 census data indicated that almost three-fourths of the total sales by producers are in 9 States: California, 19 percent; Florida, 12 percent; New York and Pennsylvania, 8 percent each; Illinois, 6 percent; and Colorado, Massachusetts, New Jersey, and Ohio, almost 5 percent each.

Since World War II the use of air transportation and refrigerated trucks for shipment of fresh cut flowers has enabled growers to ship these perishable products over greater distances. This innovation has facilitated geographic concentration of large-scale production of various species, particularly outdoor production in the Southern States and California. Another innovation has been the introduction of humidity control (supplementing temperature control) in greenhouses, increasing the number of crops harvested in each year.

U.S. exports

During 1963-68, estimated annual exports of fresh cut flowers ranged from $1.3 million to $2.0 million. About two-thirds of the estimated exports went to Canada, and the remainder went to more than 20 other countries. Although exports of fresh cut flowers are large relative to imports, exports generally represent less than 1 percent of domestic production and consist mostly of field-grown flowers from the Southern States and California.

U.S. imports

Imports of cut flowers, which are negligible, represented about one-fifth of 1 percent of the estimated value of annual U.S. production in 1963-68. Generally, imports have consisted of varieties of flowers which have certain unique characteristics, which are well established in the countries of origin, and which are well suited for export because of good keeping quality. For example, imports from Australia are believed to consist mostly of Cymbidium orchids, which are grown outdoors and last 5 to 6 weeks after being cut; other orchids normally keep 5 to 7 days.

Probably the most important factors affecting the level of imports of cut flowers are the high perishability of these articles and the abundance of domestic flowers available at reasonable prices.

Cut flowers, fresh; bouquets, wreaths, sprays, or similar articles made from flowers or other fresh plant parts: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, 1959 and 1963-68 1/

Year	Production	Imports	Exports	Apparent consumption
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
1959	142,640	2/ 98	2/ 1,491	141,247
1963	2/ 166,000	2/ 102	2/ 1,289	164,813
1964	2/ 172,000	155	2/ 1,564	170,591
1965	2/ 178,000	203	1,496	176,707
1966	2/ 184,000	332	1,632	182,700
1967	2/ 190,000	406	1,978	188,428
1968	2/ 196,000	802	1,755	195,047

1/ Statistics are not available on bouquets, wreaths, sprays, or similar articles made from fresh plant parts (other than flowers). Production, imports, and exports of these items are thus not included but are estimated to be negligible in relation to that of flowers.

2/ Estimated.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Commodity	TSUS item
Guar seed----------	192.22

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Domestic production of guar seed has increased greatly in recent years. There were no imports in 1964-68. U.S. exports of guar seed are nil.

Comment

Guar plants are drought-resistant annual legumes, grown principally in India and Pakistan. The seed of the guar plant is valued primarily for its endosperm. The endosperm, called "splits" by the trade, is virtually 100 percent crude guar gum (see summary for item 188.38) and accounts for about 40 percent of the weight of the seed. The remainder of the seed is mostly protein and is used as animal feed. The guar plant itself is used as a forage for cattle and as a green manure. The green seed pods can be used as a vegetable for human consumption.

The column 1 rate of duty applicable to imports (see general headnote 3 of the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
192.22	Guar seed----------	Free

The duty-free status was bound as a result of a concession granted by the United States in the 1964-67 trade conference under the General Agreement on Tariffs and Trade. Congress provided for a temporary duty-free status effective August 6, 1956 (70 Stat. 1066) which was made permanent May 9, 1958 (72 Stat. 107).

The United States Census of Agriculture reported that in 1959, 11 million pounds of guar seed were harvested from 28,800 acres on 626 U.S. farms; and in 1964, 11 million pounds were harvested from 24,300 acres on 432 U.S. farms. The average yield of seed per acre increased from 395 pounds in 1959 to 434 pounds in 1964. In both years all guar was grown in the semiarid areas of north-central Texas and southwestern Oklahoma.

Official statistics are not available on the domestic production after 1964. It is believed, however, that production increased sharply from 1964 to 1967 due to introduction of new varieties. Total production for 1965-68 is probably half again as large as the data shown in the table. The estimates are for guar seed for gum, whereas there is a substantial use of seed for planting for forage and green manure crops.

The production of guar is encouraged by the Federal Government and the State Governments of Texas and Oklahoma. The Food and Agriculture Act of 1965 (P.L. 89-321) has maintained price-support programs in recent years under which growers may divert acreage from feed grains and cotton to approved alternate crops, among which is guar. In 1966-68 growers who diverted acreage in excess of the required minimum diversion from feed grains or cotton to guar were eligible to receive diversion payments of 50 percent of the price-support payment rates on the commodity for which the acreage was reduced.

Data on exports of guar seed are not available, but exports are believed to be nil.

During 1959-68 imports entered in only 3 years (1960, 1962, and 1963) and were all from Pakistan. Reported entries in other years and from other countries are known to have been guar gum rather than guar seed. In order to retain the valuable protein of the seed for animal feed, Pakistan discourages and India prohibits the export of the seed. Most of the exports from India and Pakistan are in the form of crude gum consisting of the endosperm of the seed.

Guar seed: U.S. production and imports for consumption, 1959-68 1/

Year	Production 2/	Imports 3/
	Quantity (1,000 pounds)	
1959	11,360	-
1960	2/	2,464
1961	2/	-
1962	2/	5,600
1963	2/	3,315
1964	10,552	-
1965	4/ 18,000	-
1966	4/ 25,000	-
1967	4/ 35,000	-
1968	4/ 31,000	-
	Value (1,000 dollars)	
1959	449	-
1960	2/	85
1961	2/	-
1962	2/	172
1963	2/	123
1964	627	-
1965	2/	-
1966	2/	-
1967	1,700	-
1968	2/	-
	Unit value (cents per pound)	
1959	4.0	-
1960	2/	3.4
1961	2/	-
1962	2/	3.1
1963	2/	3.7
1964	6.0	-
1965	2/	-
1966	2/	-
1967	4.9	-
1968	2/	-

1/ Data on exports are not available; exports are believed to be nil. In addition to processing of domestic seed for guar gum, the United States processes and uses large quantities of imported gum. 2/ Not available.

3/ Reported entries in 1961, 1964, and 1965 are known to have consisted of guar gum rather than seed.

4/ Estimated guar seed sold for processing into gum. Excludes seed for planting.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

December 1969

1:14

Commodity	TSUS item
Hops	192.25
Hop extract	192.30
Lupulin	192.35

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The United States is the world's principal hop producer and exporter; however, imports have supplied slightly over a fifth of U.S. consumption in recent years. U.S. production and consumption of hop extract rose and has continued at a significant level since 1964, but both production and consumption of lupulin have continued to be negligible.

Description and uses

The hops of commerce are the conelike flowering parts of certain varieties of a perennial vine grown in Western United States and in many other countries. Hops, after picking, are kiln dried to 8-10 percent moisture and packed in bales. During the summer months dried hops are generally held in cold storage to maintain quality.

Hops are used to provide a distinctive flavor to beer and other fermented malt beverages, such as ale, stout, and porter. In brewing, the traditional method of introducing hops is to add whole dried hops to the wort (the malt infusion prior to fermentation) and cook them with the other ingredients. Evaporation, oxidation, and the other chemical changes that occur during the brewing process, however, result in loss of about two-thirds of the potential brewing value of the dried hops.

Hop extract, a pastelike substance extracted from dried hops, contains nearly all the aromatic oils, bitter flavoring resins, tannins, and other valuable components of hops. About 2-1/2 pounds of hops are generally used to produce a pound of extract.

Research has indicated that hop extract can be more efficient than dried hops in terms of the potential brewing value of the hops consumed. Unlike dried hops, hop extract does not require cold storage to prevent deterioration. As more information on the use of extracts has become available, the use of hops in this form has increased.

Lupulin is a yellow, resinous glandular powder found in the female inflorescence of the hop plant. Lupulin has a pleasing aroma and feels sticky when rubbed between the fingers. As produced in the United States, lupulin is ordinarily a byproduct of the hop-drying process, being salvaged from the broken hop bracts that fall to the bottom of the kiln. Lupulin is sometimes used in place of dried hops, 1 pound of lupulin being equal to about 10 pounds of dried hops in brewing value.

American and foreign grown hops are somewhat comparable in such quality factors as brewing value; leaf, stem, and seed content; and freedom from insects and contamination. American hops are generally low-priced and have a high brewing value which makes them generally competitive with those of other origins. Since hops of different varieties and origins have different flavors, however, some brewers prefer certain European hops over domestic hops.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
192.25	Hops	10¢ per lb.	9¢ per lb. 1/	7.5¢ per lb.
192.30	Hop extract	$1.20 per lb.	$1.08 per lb.	90¢ per lb.
192.35	Lupulin	60¢ per lb.	54¢ per lb.	45¢ per lb.

1/ First stage which continues in effect until Jan. 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the rate modifications are shown above (see the TSUSA-1969 for the other stages). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change.

The ad valorem equivalent of the specific rate of duty on hops in effect on December 31, 1968, based on imports in 1967, averaged 9.2 percent. Because imports of hop extract and lupulin have been negligible in recent years, a meaningful ad valorem equivalent of the duty cannot be computed.

U.S. consumption

Consumption of hops remained rather constant in 1963-67. During this period, brewers used 30.5 million pounds of dried hops annually (table 1) and, in addition, the equivalent of about 2.0 million pounds of dried hops in the form of extract.

The number of pounds of hops used per 31-gallon barrel of beer (the "hopping rate") showed a downward trend for many years, dropping from 0.46 pound in 1946 to 0.26 pound in 1967. The decline was associated with a trend to lighter, mild-flavored beer. The decline in the hopping rate has been partially offset by an increase in beer production. The continuing more efficient use of dried hops and the increased use of extract may result in further reductions in the hopping rate.

To assure necessary supplies of hops when needed, brewers contract with hop dealers from one to several years in advance and carry an inventory sufficient to meet their needs for 6 months or more. These large inventories are held in cold storage to maintain quality and are blended with each new crop to avoid abrupt changes in the flavor of the beer.

Brewery consumption in the form of hop extract has been equivalent to about 2.0 million pounds of dried hops in recent years. In some cases, the improved quality of extract, new brewing methods, and the economy of handling extract justify the added cost of converting hops to extract--a cost which, in 1965, was roughly 25 cents per pound of hops used. The annual U.S. consumption of lupulin approximates its production, which is estimated to have been about 10,000 pounds annually in recent years.

U.S. producers

In 1965 there were about 245 hop growers in Washington, 55 in Oregon, 30 in Idaho, and 20 in California, or a total of about 350 in the United States. Individual growers' acreages range from a few acres to more than 2,500 acres. However, more than half of the hop farms are in the range of 40 to 200 acres. From 1954 to 1965 the average hop acreage of individual farms increased 67 percent--from 60 acres to 100 acres--while the number of growers declined 18 percent.

The cost of establishing a hop-growing enterprise is substantial. A 1965 cost study placed it at $671 per acre for vines and trellis. Expensive large stationary pickers and kilns are also needed. Thus, hop growers have unusually large fixed production costs. Since most efficient pickers and kilns can handle the production from 200 to 250 acres of hops, growers with small acreages usually arrange joint use of such facilities.

Growers ordinarily sell their hops to dealers on contracts which specify the price and quantity to be delivered from a particular hop yard 1 or more years in advance. Fewer than 10 dealers market about 95 percent of the domestic output of hops. These dealers include one cooperative in the State of Washington (with about 85 grower members) and a large grower-dealer. The large U.S. hop dealers also handle the bulk of the hop imports. A few of them also operate in Europe.

Two firms have built plants in the Yakima Valley in Washington State to produce hop extract; a few chemical companies also produce the extract. Most extract is produced on a custom basis from hops owned by others. Extract production facilities can be expected to increase as the technology and demand increase.

U.S. production

Virtually all U.S. hops are produced in the Pacific Northwest. In 1967 a total of 29,700 acres were harvested: 19,400 acres in Washington; 4,900 acres in Oregon; 3,600 acres in Idaho; and 1,800 acres in California. The annual yield, which averaged 1,662 pounds per acre in 1963-67, fluctuates very little for the area as a whole, although severe fluctuations are not uncommon in a particular area. Total hop acreage has long followed a cyclical pattern in response to changes in grower returns for hops. However, California hop acreage has been decreasing as other more attractive land uses appear.

Hop production, which averaged 53 million pounds in 1963-67, follows a cyclical pattern similar to that of hop acreage. The most recent low was 36 million pounds in 1961, which followed a high of 54 million pounds in 1959. The next high was 56 million pounds in 1965.

Prices received by growers for hops during 1963-67 averaged 47.1 cents per pound, compared with an average of 49.2 cents in the preceding 5 years.

U.S. exports

Traditionally a substantial part of the hop crop is exported. Although some countries use tariffs and so-called nontariff trade

barriers such as quotas, surcharges, and special exchange rates to restrict their imports of hops, U.S. hops are generally competitive in foreign markets. The overall trend in U.S. exports of hops is up, exports having increased more than 10 percent in the period 1963-67 compared with the preceding 5-year period. An additional 3 or 4 percent of the crop is exported in the form of extract.

During the 5-year period 1963-67, U.S. annual exports of hops averaged 21.6 million pounds and ranged from 18.3 million pounds in 1967 to 23.8 million pounds in 1965. During the 5-year period 1963-67, six countries--West Germany, Mexico, Canada, Brazil, Colombia, and Czechoslovakia--accounted for over 60 percent of U.S. exports of hops (table 2).

In calendar years 1967 and 1968 (the first years for which statistics have been separately reported) U.S. exports of hop extract amounted to 1.3 million pounds, valued at $2.4 million and 1.1 million pounds, valued at $2.5 million, respectively. Most of these exports went to Mexico and Colombia.

U.S. imports

U.S. annual imports of hops during the 1963-67 crop years ranged from 5.7 million pounds to 9.1 million pounds, supplying an average of over 20 percent of brewery consumption (table 1). In that 5-year period annual average hop imports were considerably larger than in any similar period since the late 1930's.

Imported hops fill the needs of certain brewers for particular flavor characteristics. Generally, blends of imported and domestic hops are used. Dependable supplies, uniform quality, and special flavor characteristics are factors of primary concern to brewers, rather than price. Although imported hops have usually been more expensive than domestic hops, past duty reductions have had no discernible effect on the volume of imports.

West Germany and Yugoslavia are the principal suppliers of imported hops, with imports averaging 4.9 million pounds and 1.6 million pounds a year, respectively, during the 1963-67 crop years (table 2). In recent years, imports of hop extract have averaged about 1,300 pounds, while imports of lupulin have been negligible.

Foreign production and trade

Annual world production of hops has shown a slight upward trend in the past 2 decades and is expected to continue upward. The following tabulation, compiled from official statistics of the U.S.

Department of Agriculture, shows hop production in some of the major producing countries during the crop years 1963-67 (in millions of pounds):

Country	1963	1964	1965	1966	1967
United States	51.4	53.8	56.1	55.4	49.5
West Germany	39.8	41.0	40.1	38.6	49.2
United Kingdom	31.0	28.3	29.0	25.6	23.7
Czechoslovakia	19.9	14.0	15.9	20.4	16.1
Yugoslavia	10.9	13.0	10.8	12.1	11.7

West Germany is second only to the United States in the production of hops. Most hop-growing enterprises in West Germany are small, averaging less than 4 acres, but production is mechanized on a community basis. Traditionally, German hops have been highly regarded and they are freely traded at premium prices. Germany is the leading producer of hop extract, much of which is exported.

In 1967 the United Kingdom ranked third in world hop production. All English hops have been marketed under a hop-marketing program since 1932. The home market is allocated among growers by the Hop Marketing Board, which establishes price and quantity by negotiating with brewers. Since supply and domestic demand are generally balanced, imports are excluded except as necessary to meet occasional deficiencies or for special uses. Thus, the United Kingdom is not an important factor in world hop trade.

Czechoslovakia ranks fourth in world hop production and is followed by the U.S.S.R. and Yugoslavia. Both Czechoslovakia and Yugoslavia are important hop exporters and Yugoslavia regularly supplies hops to the United States. Some of the smaller hop-producing countries, whose production has increased rapidly in recent years, are Japan, Poland, East Germany, and Spain.

Table 1.--Hops: U.S. production, imports for consumption, exports of domestic merchandise, brewery consumption, and yearend stocks, crop years 1963-67

Year beginning Sept. 1--	Production	Imports	Exports	Brewery consumption 1/	Yearend stocks	Ratio (percent) of imports to consumption
	Quantity (million pounds)					
1963	51.4	5.7	21.2	30.4	19.1	19
1964	53.4	6.5	22.6	30.3	22.1	21
1965	56.1	6.9	23.8	31.3	22.1	22
1966	55.4	8.2	22.2	30.1	24.7	27
1967	49.5	9.1	18.3	2/	27.5	2/
	Value (million dollars)					
1963	25.0	6.0	13.8	2/	2/	2/
1964	25.9	7.0	14.0	2/	2/	2/
1965	26.0	7.3	14.3	2/	2/	2/
1966	25.9	8.4	13.7	2/	2/	2/
1967	22.8	8.9	10.3	2/	2/	2/
	Unit value (cents per pound) 3/					
1963	48.6	105.3	65.1	2/	2/	2/
1964	48.5	107.7	62.0	2/	2/	2/
1965	46.3	105.8	60.1	2/	2/	2/
1966	46.8	102.4	61.7	2/	2/	2/
1967	46.1	97.8	59.8	2/	2/	2/

1/ Consists of whole dried hops only; brewers consume lupulin and hop extract also. Their consumption of lupulin is negligible and that of hop extract increased from an estimated equivalent of 1.7 million pounds of hops in 1963 to 2.3 million in 1967.

2/ Not available.

3/ Calculated on rounded figures.

Source: Consumption compiled from official statistics of the U.S. Department of the Treasury; production and yearend stocks compiled from official statistics of the U.S. Department of Agriculture; imports and exports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Hops: U.S. imports for consumption and domestic exports, by selected countries, crop years 1963-67

(In millions of pounds)

U.S. imports and exports by country	Year beginning Sept. 1--				
	1963	1964	1965	1966	1967
Imports:					
West Germany	3.4	5.3	4.5	4.9	6.4
Yugoslavia	2.0	.7	1.5	2.1	1.9
All other	.3	.5	.9	1.2	.8
Total	5.7	6.5	6.9	8.2	9.1
Exports:					
Canada	2.1	2.4	2.0	2.1	2.2
Mexico	3.1	4.0	3.6	2.7	2.1
Brazil	1.9	2.0	2.3	2.3	1.9
West Germany	2.2	3.4	3.9	4.8	1.7
Colombia	1.7	1.1	1.6	1.0	1.2
Czechoslovakia	2.0	.2	1.8	.9	1.1
All other	8.2	9.5	8.6	8.4	8.1
Total	21.2	22.6	23.8	22.2	18.3

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

Commodity	TSUS item
Licorice root	192.40
Licorice extract	192.45

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Licorice root is not grown commercially in the United States. This country is a major producer and consumer of licorice extract which is processed from imported root. Imports and exports of licorice extract are small relative to domestic consumption.

Description and uses

Licorice root consists of the dried roots and rhizomes (underground stems) of the licorice plant, Glycyrrhiza glabra, and related species. The licorice plant grows in a "licorice belt" which includes countries of the Mediterranean Basin, Asia Minor, and Southern Asia. The roots are dug when the plant is 3 to 5 years old, usually in the spring and autumn when the ground is soft. Enough root is left in the ground to renew itself in another 3 to 5 years. The fresh-cut roots ordinarily are taken to buying stations where they are dried for several months, cleaned, and pressed into bales for export.

Virtually all of the licorice root processed in the United States is used for the production of licorice extract. A small quantity is shredded and ground into a powder for use in flavoring snuff and pharmaceuticals. Licorice root is marketed in the United States in whole, shredded, and powdered forms.

In the manufacture of licorice extract, the root is shredded and ground into coarse particles, and the licorice extracted by boiling the particles in kettles of water. The water is removed and the licorice extract is drawn off as a heavy dark paste, some of which is molded on cooling into blocks. A recent trend, however, is to process the paste into a more convenient powder or granular form of extract. Licorice extract is also produced in a confectioner's grade of pure licorice sirup.

In the United States, licorice extract is used principally to flavor tobacco products--mainly chewing tobacco, snuff, and more recently tobacco for use in filter-tip cigarettes. It is also used as

a flavoring in beverages, pharmaceuticals, and confectionery. In Europe, where licorice candy is more popular than in the United States, a larger share of licorice extract production is consumed in confectionery products than in this country.

Several byproducts not included in this summary are obtained in the production of licorice extract. A second boiling of the ground root yields a liquid which is used as a foam stabilizer in foam-type fire extinguishing fluids. The spent root is used in the manufacture of wallboard or as a garden mulch. A derivative of licorice extract, ammoniated glycyrrhizin, is used as a sweetener and tends to intensify certain flavors such as chocolate and maple. Ammoniated glycyrrhizin is used in certain confectionery products and beverages where it reduces the amount of sugar and flavoring needed.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
192.40	Licorice root	Free	1/	1/
192.45	Licorice extract 2/	12.5% ad val.	10% ad val.	6% ad val.

1/ Duty-free status was bound by the trade conference.
2/ The column 2 rate of 20 percent ad valorem is applicable to imports from Communist countries.

The tabulation above shows the column 1 rates of duty in effect from the effective date of the TSUS on August 31, 1963, to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages).

U.S. consumption

Virtually all licorice root processed in the United States is used in the production of licorice extract; therefore, trends in the domestic consumption of both are closely correlated. Consumption of licorice extract declined during the early post World War II period, mainly because of a decrease in the consumption of chewing tobacco in which the extract is used. During the 1961-68 period, however, consumption began to recover, apparently in response to a demand by domestic tobacco manufacturers for licorice extract to flavor filter-tip cigarettes. The increase in apparent consumption, although irregular, was significant in view of the long-term decline. Consumption increased from 17 million pounds in 1961 to 23 million pounds in 1967.

U.S. producers and production

Licorice root is not grown commercially in the United States.

Licorice extract is manufactured in the United States by two producers, both located on the east coast. One manufacturer, by far the larger, makes licorice extract from licorice root, ammoniated glycyrrhizin from the extract, and fire extinguisher fluid and wallboard from the spent root. The company also owns an extraction plant in Turkey and maintains facilities in the Near East, Greece, and Italy to collect and ship the root. The smaller producer makes, in addition to licorice extract, aniline dyes and tanning extracts. Another company imports crude licorice extract which it further refines and processes.

During 1961-68 U.S. production of licorice extract averaged about 21 million pounds annually (table 1). Previously, there had been a long-term decline in production; the level of production, however, during 1961-68 has been somewhat higher than during the preceding 5 years.

U.S. exports and imports

Exports of licorice root are believed to be negligible. The value of exports of licorice extract declined from about $1.7 million in 1962 to $0.7 million in 1967, and rose only slightly in 1968 to $0.8 million.

Although exports of licorice extract have been made to a sizable number of countries, a major part has gone to only 3 countries. In 1967 West Germany, Canada, and Denmark accounted for almost two-thirds of total U.S. exports of licorice extract.

U.S. imports of licorice root depend largely on anticipated requirements for licorice extract. Producers normally carry about a 2-year inventory of root in order to insure a continuous supply of licorice to their customers.

Imports of licorice root ranged from 45 million pounds to 65 million pounds annually during 1963-68 (table 2) with an average level of about 50 million pounds per year. Iran, Iraq, the Soviet Union, and Turkey were the principal sources of licorice root in 1968 and in most other recent years as well. Mainland China is a major supplier of licorice root to certain countries but is not a source of root for the United States because of a U.S. embargo on trade with that country.

Imports of licorice extract increased from 269,000 pounds in 1963 to 1,429,000 pounds in 1968 (table 3). Despite the sizable increase, imports accounted for only about 6 percent of apparent domestic consumption in 1968. All of the licorice extract imported in 1968 was supplied by Israel. Before 1965 Turkey had been the leading supplier of licorice extract to the United States. In 1963, however, Israel began exporting licorice extract to this country and by 1965 had replaced Turkey as the principal supplier.

Table 1.--Licorice extract: U.S. production, imports for consumption, exports, and apparent consumption, 1961-68

(Quantity in thousands of pounds; value in thousands of dollars)

Year	Production 1/	Imports	Exports 2/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
1961	19,890	230	2,662	17,458	1.3
1962	19,060	216	3,064	16,212	1.3
1963	20,261	269	3,060	17,470	1.5
1964	20,491	630	2,390	18,731	3.4
1965	21,928	816	911	21,833	3.7
1966	20,605	1,038	1,520	20,123	5.2
1967	23,650	1,302	2,260	22,692	5.7
1968	22,933	1,429	2,739	21,623	6.6
	Value				
1961	3/	52	1,464	3/	3/
1962	3/	40	1,685	3/	3/
1963	3/	55	1,683	3/	3/
1964	3/	159	1,315	3/	3/
1965	3/	236	750	3/	3/
1966	3/	289	716	3/	3/
1967	3/	365	676	3/	3/
1968	3/	414	824	3/	3/
	Unit value (cents per pound)				
1961	3/	23	55	3/	3/
1962	3/	18	55	3/	3/
1963	3/	20	55	3/	3/
1964	3/	25	55	3/	3/
1965	3/	29	82	3/	3/
1966	3/	28	47	3/	3/
1967	3/	28	30	3/	3/
1968	3/	29	30	3/	3/

1/ Estimated.
2/ Estimated for years 1961-64.
3/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 2.--Licorice root: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Syria	22	1,661	8	13	930	912
Iraq	10,145	12,377	16,890	9,598	21,146	13,606
U.S.S.R.	12,638	8,114	11,766	11,424	11,932	10,505
Turkey	13,740	7,792	10,515	3,777	6,683	749
Iran	13,487	13,564	8,733	19,794	23,579	16,470
Greece	239	1,128	-	-	783	711
All other	3,224	118	23	70	4	200
Total	53,495	44,754	47,935	44,676	65,057	43,153
	Value (1,000 dollars)					
Syria	2	73	1	2	64	68
Iraq	442	528	737	445	981	691
U.S.S.R.	613	385	543	564	588	520
Turkey	585	369	542	215	473	45
Iran	475	480	314	777	955	670
Greece	11	95	-	-	69	53
All other	162	7	4	6	1	13
Total	2,290	1,937	2,141	2,009	3,131	2,060
	Unit value (cents per pound)					
Syria	7.6	4.4	9.9	18.9	6.9	7.5
Iraq	4.4	4.3	4.4	4.6	4.6	5.1
U.S.S.R.	4.8	4.7	4.6	4.9	4.9	5.0
Turkey	4.3	4.7	5.2	5.7	7.1	6.0
Iran	3.5	3.5	3.6	3.9	4.0	4.1
Greece	4.6	8.4	-	-	8.8	7.5
All other	5.1	5.9	19.8	7.5	21.1	6.5
Average	4.3	4.3	4.5	4.5	4.8	4.8

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

Table 3.--Licorice extract: U.S. imports for consumption by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Israel	5	281	630	823	1,256	1,395
Turkey	260	348	186	209	44	33
Spain	4	-	-	-	-	-
All other	-	1	-	6	2	1
Total	269	630	816	1,038	1,302	1,429
	Value (1,000 dollars)					
Israel	2	86	192	241	354	407
Turkey	52	73	44	47	10	5
Spain	1	-	-	-	-	-
All other	-	1/	-	1	1	2
Total	55	159	236	289	365	414
	Unit value (cents per pound)					
Israel	35	31	30	29	28	29
Turkey	20	21	24	23	23	15
Spain	29	-	-	-	-	-
All other	-	10	-	13	46	200
Average	20	25	29	28	28	29

1/ Less than $500.

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

Commodity	TSUS item
Peat moss	192.50

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The domestic consumption of the peat moss included in this category, which is believed to be supplied entirely from imports, has been declining in recent years. There is no known domestic production or exports of such peat moss.

Comment

This summary covers those grades of peat moss or peat (these terms being synonymous for tariff purposes) not chiefly used for fertilizer or as an ingredient in the manufacture of fertilizer. In practice, apparently, where the major portion of a representative sample of imported peat moss does not pass through a one-half inch screen mesh, it is considered to be provided for by TSUS item 192.50. Where the major portion of the sample does pass through such screen, the imported peat product is considered to be classifiable under the duty-free tariff provision for those grades of substances chiefly used for fertilizer or as an ingredient in the manufacture of fertilizers (item 480.80). The "screen test" is a practical method of applying the chief use doctrine; it would not be applicable, however, if chief use as a fertilizer, for instance, could be definitely established contrary to the results of the physical test. Although peat moss is often referred to as a soil conditioner rather than a plant food as such, the tariff rulings make no such distinction.

Peat or peat moss, a yellowish-brown, porous, spongy material, is vegetable matter in a stage of decomposition between plant fiber and coal and is found ordinarily near the surface of the earth in water-saturated areas or bogs. It is generally classed into three types: humus, reed-sedge, and moss. Humus is peat in a more advanced state of decomposition. The names of the other types are based on the plant material from which derived--reed-sedge peat is formed from reeds, sedges, and similar grasslike plants, while the moss type is formed from moss, principally sphagnum moss.

It is believed that the principal use of the peat moss covered by this summary is for poultry or other animal litters. There are certain other uses for peat or peat moss covered by this summary such as for

insulation board and for pressing into briquettes for use as fuel. The use of peat moss in all outlets covered by this summary is negligible compared to its use as a soil conditioner or fertilizer.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
192.50	Peat moss	25¢ per ton	15¢ per ton	Free

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the 1964-67 trade conference under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty (20 cents per ton) in effect on December 31, 1968, based on dutiable imports in 1968, averaged 0.3 percent.

The United States has various sizable deposits of peat but insofar as is known none of these are worked other than for producing peat for fertilizer. Peat or peat moss is a very low-valued article, much of the cost of the product being represented by the cost of transportation and by the cost of removal from the deposits.

U.S. annual imports of the subject peat moss during 1963-68, which constitutes virtually all of U.S. annual consumption, declined from 5,020 tons 1/ valued at $318,000 in 1963 to 1,584 tons, valued at $102,000 in 1968 (see table). During the same period such imports averaged 3,542 tons, valued at $213,000 annually.

1/ Ton of 2,240 pounds.

Peat moss: U.S. imports for consumption by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (tons) 1/					
Canada	3,692	3,361	2,769	3,096	2,921	1,275
Ireland	55	-	125	271	36	34
West Germany	1,137	887	606	186	240	275
Mexico	36	22	33	16	6	-
All other	100	46	35	20	12	-
Total	5,020	4,316	3,568	3,589	3,215	1,584
	Value (1,000 dollars)					
Canada	248	208	176	174	172	87
Ireland	2	-	5	11	2	2
West Germany	55	39	26	10	13	13
Mexico	4	4	8	3	1	-
All other	9	5	5	1	1	-
Total	318	256	220	199	189	102
	Unit value (per ton)					
Canada	$67.17	$61.89	$63.56	$56.20	$58.88	$68.24
Ireland	36.36	-	40.00	40.59	55.56	58.82
West Germany	48.37	43.97	42.90	53.76	54.17	47.27
Mexico	111.11	181.82	242.42	187.50	166.67	-
All other	90.00	108.70	142.86	50.00	83.33	-
Average	63.35	59.31	61.66	55.45	58.79	64.39

1/ Ton of 2,240 pounds.

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

Commodity	TSUS item
Broom corn	192.55

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

About two-thirds of the broom corn consumed in the United States in recent years has been supplied from domestic production. During the period 1963-68, imports averaged about 20 percent of domestic consumption but imports have constituted an increasing portion of the total. Exports have been small relative to domestic production.

Description and uses

Broom corn is a variety of quick-growing sorghum and somewhat resembles the corn plant in appearance. The fibers, which have no commercial use other than in making brooms, are contained in the elongated, many-branched seed head. Two main types of the broom corn plant, standard and dwarf, are grown in the United States. The standard type may grow to a height of 6 to 14 feet; it requires a better soil and is less drought-resistant than dwarf broom corn, which grows about 4 to 6 feet high. The fiber produced by the two types, however, does not differ substantially in length or quality.

The trade has established informal grades for broom corn. These grades, based on usage, vary within the industry and have no set specifications. "Inside" or "handle" broom corn is usually a short, rather stemmy fiber used to make the inside of the broom. "Turnover" or "shoulder" is a somewhat longer fiber used in making the shoulders of the broom. "Hurl" is used to make the outside of the broom and is long, good quality fiber.

U.S. tariff treatment and other requirements

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
192.55	Broom corn	$10 per short ton

The above rate of duty has been in effect since the effective date of the TSUS on August 31, 1963. In the Kennedy Round, the $10 per short ton rate was bound under the General Agreement on Tariffs and Trade, effective January 1, 1968.

The ad valorem equivalent of the specific rate of duty in effect on December 31, 1968, based on dutiable imports in 1968, was 2.0 percent.

All importations of broom corn are subject to permit and inspection requirements of the Plant Quarantine Division, U.S. Department of Agriculture.

U.S. consumption

U.S. annual consumption of broom corn declined from 29,700 short tons in 1963 to about 25,400 short tons in 1968 (table 1), and averaged 26,400 short tons annually for the period 1963-68. This decline in the consumption of broom corn results from a long-term downward trend in the use of brooms of broom corn and also reflects the introduction of smaller and lighter styles of broom corn brooms (see summary on brooms-TSUS items 750.26-750.31).

U.S. producers and production

Broom corn is produced mainly in the semiarid regions of Oklahoma, Colorado, New Mexico and Texas. The small acreage planted in Illinois is devoted mainly to the production of seed.

During the past two decades, the number of broom corn growers has declined markedly. The 1949 Census of Agriculture reported 4,928 farmers growing broom corn. In 1964 the total had declined to 1,453 and it is estimated that in 1967 fewer than 700 farmers were growing broom corn.

In recent years, the U.S. annual production of broom corn has declined considerably. The harvesting of broom corn has not as yet been mechanized and the high labor cost involved in harvesting has discouraged many domestic producers. The production in 1968 was less than 18,000 short tons, compared with over 27,000 short tons in 1963. Associated with a long-term downward trend in production there have been wide variations in production from year to year. As recently as 1965 production was at the relatively high level of more than 32,000 tons.

U.S. exports and imports

U.S. annual exports of broom corn averaged 1,413 short tons for the period 1963-68 and were relatively stable. Nearly all U.S. exports of broom corn have gone to Canada (which grows no broom corn).

During the period 1963-68 U.S. annual imports of broom corn ranged from 3,298 short tons in 1965 to 9,427 short tons in 1968 and averaged 5,655 short tons. Imports increased each year from 1961 to 1964, declined in 1965, and then rose to the record level of 9,427 short tons in 1968. Slightly over 90 percent of the imports in 1968 came from Mexico (table 2), which for the last several years has produced a quality of broom corn comparable to that produced domestically. Other suppliers include Italy, Argentina, and Greece.

A recent innovation in the broom industry has been the purchasing of quantities of processed broom corn (sorted for quality, cut to length and ready for direct use in broom manufacture). Processing eliminates about 1/3 of the weight of the broom corn, and processed broom corn is equivalent to 1-1/2 times its weight of raw broom corn. In recent years imports have included more and more processed broom corn. It is estimated that most of the broom corn coming from Europe in recent years, has been processed; in 1967 and 1968, about 40 percent of that from Mexico was processed.

In 1967, the Tariff Commission conducted an escape-clause investigation 1/ under the provisions of section 301(b) of the Trade Expansion Act of 1962, on broom corn. The Commission found that broom corn was not, as a result in major part of concessions granted by trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause serious injury to the domestic industry producing like or directly competitive articles.

1/ U.S. Tariff Commission, Broomcorn: Report to the President on Investigation No. TEA-I-12---1968.

Table 1.--Broom corn: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, annual 1963-68

(Quantity in short tons; value in thousands of dollars)

Period	Production	Imports	Exports	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
1963	27,400	3,917	1,585	29,732	13.2
1964	20,800	6,133	1,312	25,621	23.9
1965	32,300	3,298	1,034	34,564	9.5
1966	20,000	4,426	1,296	23,130	19.1
1967	14,900	6,729	1,458	20,171	33.4
1968	17,800	9,427	1,792	25,435	37.1
	Value				
1963	10,514	1,102	565	1/	1/
1964	7,556	1,550	494	1/	1/
1965	10,341	981	432	1/	1/
1966	7,341	1,675	542	1/	1/
1967	6,362	3,537	671	1/	1/
1968	7,415	4,679	666	1/	1/
	Unit value				
1963	$384	$281	$356	1/	1/
1964	363	253	377	1/	1/
1965	320	297	418	1/	1/
1966	367	378	418	1/	1/
1967	427	526	460	1/	1/
1968	417	496	372	1/	1/

1/ Not meaningful.

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

Table 2.--Broom corn: U.S. imports for consumption, by principal sources, 1963-67

Period	Total, all countries	Mexico	Italy	Argentina	Greece	All other
	Quantity (short tons)					
Annual:						
1963	3,917	3,173	139	573	-	32
1964	6,133	5,385	167	372	59	150
1965	3,298	2,388	146	474	96	194
1966	4,426	3,965	130	269	32	30
1967	6,729	6,401	111	95	108	14
1968	9,427	8,670	255	329	155	18
	Value (1,000 dollars)					
Annual:						
1963	1,102	875	84	126	-	17
1964	1,550	1,273	106	88	26	57
1965	981	675	86	104	41	75
1966	1,675	1,485	81	73	21	15
1967	3,537	3,356	79	34	56	12
1968	4,679	4,264	188	122	92	13
	Unit value					
Annual:						
1963	$281	$276	$604	$220	-	$531
1964	253	236	635	237	$441	380
1965	297	283	589	219	427	387
1966	378	375	623	271	656	500
1967	526	524	712	358	519	857
1968	496	492	737	371	594	667

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

Commodity	TSUS item
Straws and other fibrous vegetable substances not elsewhere enumerated, crude or processed (except broomcorn):	
Flax straw	192.60
Istle	192.65 -.70
Rice straw and fiber	192.75
Other	192.80 -.85

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Almost all of the U.S. domestic consumption of the straws and fibrous vegetable substances included in this summary (except flax straw) is supplied from imports. U.S. exports of these straws and fibers are estimated to be small or negligible.

Comment

Imports of items included in this summary consist primarily of tropical and semitropical vegetable fibers which are chiefly used in the manufacture of brushes and brooms. These vegetable fibers are to be distinguished from the vegetable fibers provided for under Schedule 3 (Textile Fibers and Textile Products) of the TSUS, the latter being those which can be spun, including those chiefly used for padding and stuffing (see headnote 1(a) to part 1B, schedule 3 of the TSUS). Straw, except for flax and rice straw, is specially provided for in TSUS item 184.35.

Flax straw (item 192.60) is from a temperate zone plant and is used in the United States mostly in making cigarette paper.

Istle or ixtle (if crude, item 192.65; if processed, item 192.70), usually called Tampico fiber, is produced in Mexico in the region around Monterrey. It is obtained from the leaves of several uncultivated native cactus plants. Tula and Jaumave istle are used after processing (cleaning, combing, grading), principally as bristles in a variety of high quality articles ranging from toilet brushes to industrial brushes and brooms. Patent or polished istle, which is made from selected and specially cleaned and polished Jaumave, is mixed with horsehair and used in the production of some painters' dusting brushes.

Rice straw and rice fiber (item 192.75) have been used in the past as cheap filler in domestically produced brooms when broomstraw was expensive, but there have been no significant imports since 1939. Imports are subject to Plant Quarantine No. 55 (7 CFR 319.55) which requires sterilization before entry.

Among the vegetable fibers included under the provisions for other straws and fibrous vegetable substances, crude or processed (TSUS items 192.80 and 192.85), are sotol, broom root, and palm fibers such as raffia, palmyra, bassine, bass or piassava, and palmetto.

Sotol also termed yucca, bear grass and palmilla, is obtained from a wild cactus found in northern Mexico, Arizona, and New Mexico. It is used as a cheap filler in broom corn brooms. During the period 1964-67 imports of sotol averaged about 3,300 short tons annually under item 192.85.

Broom root, which is also known as Mexican broom root, Mexican whisk, bunch grass, or rice root, is obtained from the stiff, crinkly fibrous roots of a large bunch grass which grows wild in Mexico. In the United States it is used primarily in the production of curry brushes for horses.

Raffia (sometimes spelled raphia) consists of thin fibrous strips obtained from the cuticle or surface structure of the leaves of several species of the palm tree raphia, principally from Raphia ruffia. These palms grow wild along river banks or near the sea on both the east and west coasts of Africa, in Madagascar, and in Brazil. Local workers pull thin sections of fibrous materials from the leaves. These sections are flat and straw colored, about 1/2 inch to 1 inch wide and from 3 to 4 feet long, and are divided with a comb-like instrument into strips of the desired width.

Raffia is used in the crude form as imported, principally by florists and gardeners for tying up vines and other plants, for tree- or plant-grafting purposes, and for tying small bundles, bunches, or packages. It is also consumed in the United States in the manufacture of simulated grass mats, which are used mostly for decorative purposes (see summary on TSUS item 222.34 and 222.62).

Palmyra is obtained from the palmyra palm indigenous to Ceylon and Eastern India. The so-called palymra stalk cane, actually the coarse rib of the leaf, is used for street brooms, rotary sweepers, and other heavy-duty brooms. Palmyra fiber, which comes from the fibrous petiole at the base of the leaf stem, is used principally for scrub brushes and other industrial brushes and brooms. Better grade palmyra fiber that has been dyed a dark brown or black is ordinarily known as bassine. It is used in an even wider range of brushes than is palmyra, though in lesser quantities.

STRAWS AND OTHER FIBROUS VEGETABLE SUBSTANCES NOT ELSEWHERE ENUMERATED, CRUDE OR PROCESSED (EXCEPT BROOMCORN)

The terms bass and piassava apply to the petiole fibers from a number of African and Brazilian palms. Among the more important types of African bass are Sulima bass, which is used in industrial and domestic heavy-duty brooms, Sherbro bass, which is slightly smoother and more uniform in fiber than Sulima bass and which is used in punching work and for blending with Sulima bass to improve the texture, and Calabar bass, a dark brown, flexible fiber which is used in the roller brushes of automatic road sweepers.

The terms "piassave" or "piassaba" used alone usually refer to Brazilian piassava which is generally of higher quality than African piassava. Piassava fiber is used mainly for large-sized street and floor brooms and household and industrial brushes. It is also often mixed with other fibers for smaller brushes.

Palmetto is obtained from a large fan palm that grows wild in Florida and the Caribbean. It is used for animal scrub brushes, fine floor brushes and whiskbrooms.

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Straws and other fibrous vegetable substances not elsewhere enumerated, crude or processed (except broomcorn):			
192.60	Flax straw	75¢ per ton	45¢ per ton 3/	Free
	Istle:			
192.65	Crude	Free	1/	1/
192.70	Processed	20% ad val. 2/	1/	1/
192.75	Rice straw and rice fiber	$5 per short ton 3/	1/	1/

See footnotes at end of table.

STRAWS AND OTHER FIBROUS VEGETABLE SUBSTANCES NOT ELSEWHERE ENUMERATED, CRUDE OR PROCESSED (EXCEPT BROOMCORN)

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
	Straws and other fibrous vegetable substances not elsewhere enumerated, crude or processed (except broomcorn)--continued			
	Other:			
192.80	Crude	Free	1/	1/
192.85	Processed	10% ad val.	8% ad val.	5% ad val.

1/ Rate of duty not affected by the trade conference.
2/ Duty suspended since Sept. 5, 1957, by recurring temporary legislation (see item 903.90 of the appendix to the TSUSA-1969).
3/ "Ton" means 2,240 pounds; "short ton" means 2,000 pounds.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for the other stages). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rates shown above did not change. The ad valorem equivalent of the specific rate of duty was not calculated for items 192.60 and 192.75 because there have been no imports in recent years.

It is estimated that in recent years, about 150,000 tons of flax straw has been sold annually by U.S. flax seed growers for making cigarette paper and other fine papers. This flax straw, which is a byproduct of flax seed growing, had an estimated annual farm value of slightly over $500,000. Most of this straw was produced in the Dakotas and Minnesota. Some palmetto fiber, probably less than half a million pounds annually, is produced in Florida and a small quantity of sotol may be produced in New Mexico and Arizona.

STRAWS AND OTHER FIBROUS VEGETABLE SUBSTANCES NOT ELSEWHERE ENUMERATED, CRUDE OR PROCESSED (EXCEPT BROOMCORN)

With the exception of flax straw and palmetto fiber, most of the various types of straws and fibrous vegetable substances included in this summary are supplied almost entirely from imports, which averaged about 34 million pounds and $6 million for the period 1964-68 (see table). Aside from istle imports of 4,000 to 6,000 tons annually, the import total is made up almost entirely of fibers in the "other" categories, TSUS items 192.80 and 192.85. Chief among these are the processed substances--palmyra stalks, palmyra fiber, and bassine--from India of about 3,000 tons and processed sotol from Mexico at about 3,000 tons. Other imported fibers reported in TSUS items 192.80 and 192.85 are crude African piassava at about 2,000 tons; crude and processed Brazilian piassava at about 1,000 tons; and several hundred tons of crude raffia, mostly from the Malagasy Republic. Crude broom or rice root imports, all of which came from Mexico, are relatively unimportant at probably not more than 50 tons annually. There have been infrequent imports of flax straw from Canada. The higher unit value for crude fibers, not specially provided for, than for the processed fibers rests primarily on the fact that crude piassava is considerably more expensive than processed sotol.

Exports of the various straws and fibrous vegetable substances included herein are not separately reported but are estimated to be negligible in relation to imports. Some palmetto is exported and there are some exports of imported fibers.

200 STRAWS AND OTHER FIBROUS VEGETABLE SUBSTANCES NOT ELSEWHERE ENUMERATED, CRUDE OR PROCESSED (EXCEPT BROOMCORN)

Straws and other fibrous vegetable substances, not specially provided for: U.S. imports for consumption, by type, 1964-68

Type	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)				
Flax straw	3,143	-	-	-	-
Istle:					
Crude	1,960	1/ 1,300	824	1,109	1,304
Processed	6,851	8,115	11,202	7,248	6,437
Rice straw and fiber	-	-	-	-	-
Other (except broomcorn):					
Crude	6,444	12,154	8,799	9,140	8,529
Processed	14,319	15,834	15,375	15,072	15,714
Total	32,987	37,403	36,200	32,569	31,984
	Value (1,000 dollars)				
Flax straw	21	-	-	-	-
Istle:					
Crude	170	265	67	113	165
Processed	2,616	2,881	3,780	2,843	2,761
Rice straw and fiber	-	-	-	-	-
Other (except broomcorn):					
Crude	659	953	1,746	1,955	1,639
Processed	1,108	1,448	1,445	1,509	1,571
Total	4,574	5,547	7,038	6,420	6,136
	Unit value				
Flax straw	.01	-	-	-	-
Istle:					
Crude	.09	.20	.08	.10	.13
Processed	.38	.36	.34	.39	.43
Rice straw and fiber	-	-	-	-	-
Other (except broomcorn):					
Crude	.10	.08	.20	.21	.19
Processed	.08	.09	.09	.10	.10
Average	.14	.09	.19	.20	.19

1/ Estimated. Reported figures known to include statistical misclassifications.

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

Commodity	TSUS item
Teasels	192.90

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

The domestic consumption of the teasels included in this category, which is believed to be supplied almost entirely from imports, has been small and erratic. Exports are believed to be negligible.

Comment

Teasels in item 192.90 are dried burrs from the teasel plant and are used in the textile finishing of fabrics. In practice the teasels, each about 1 or 2 inches long, are inserted in frames in a textile-dressing roller. When fabric is drawn across the roller, barbs on the tips of the teasel spines raise a nap on the fabric. Teasels are used mostly on high-grade woolens for men's and women's clothing. Teasels create a slanted nap and high luster that cannot be duplicated by any other medium. Most textiles are napped with napping wire, which is much cheaper to use than teasels.

Teasels suitable for use as dried flowers in bouquets and wreaths are provided for under items 748.30 and 748.32. Such use of teasels is minor; imports, if any, are negligible. The teasels suitable for bouquets, wreaths, or other ornamental use usually have a stem; those for the textile industry have almost no stem. Teasel seed (item 127.10) often is used as an ingredient in bird food.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			First stage, effective Jan. 1, 1968	Final stage, effective Jan. 1, 1972
192.90	Teasels	10% ad val.	9% ad val. 1/	7.5% ad val.

1/ The rate which became effective Jan. 1, 1968, continues in effect until Jan. 1, 1970.

The tabulation above shows the column 1 rates of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the first and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for the other stages). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

U.S. consumption of teasels by the textile industry is believed to be supplied almost entirely from imports. The consumption of teasels varies with style changes in clothing and may fluctuate considerably from year to year.

U.S. production of teasels is not presently reported and there is no sound basis for an estimate. A small production was reported in the 1949 United States Census of Agriculture, amounting to 80,000 pounds in Oregon, 6,400 pounds in New York, and 2,500 pounds in Michigan. There also may be some harvesting of wild growth. Data on U.S. exports of teasels are not available; such exports are believed to be negligible.

U.S. imports of teasels averaged about 31,500 pounds ($14,000) annually during 1963-68--lower than during the 1950's, but higher than during the 1930's and 1940's. France has supplied most of the U.S. imports of teasels (see table). Italy, Japan, and Ireland have supplied all of the remainder in recent years.

Teasels: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (pounds)					
France	36,695	22,487	22,067	31,281	16,106	10,825
Italy	14,380	8,584	2,240	2,397	7,904	7,338
Other	3,016	-	130	1,220	-	2,255
Total	54,091	31,071	24,437	34,898	24,010	20,418
	Value (dollars)					
France	17,612	13,151	11,212	12,238	9,128	3,853
Italy	4,960	3,154	900	1,054	2,484	2,790
Other	664	-	110	670	-	1,633
Total	23,236	16,305	12,222	13,962	11,612	8,276
	Unit value (cents per pound)					
France	48.0	58.5	50.8	39.1	56.7	35.6
Italy	34.5	36.7	40.2	44.0	31.4	38.0
Other	22.0	-	84.6	54.9	-	72.4
Average	43.0	52.5	50.0	40.0	48.3	40.5

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

Note.--In 1967, excludes 22,015 pounds valued at $6,000 from Brazil of imports not properly classified for statistical purposes as determined from examination of copies of entries.

Commodity	TSUS item
Tonka beans	193.10

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. consumption of tonka beans is supplied entirely from imports, as they are not grown in the United States or any of its possessions. The volume of imports rises and falls with the fluctuations in crop production in the supplying countries.

Comment

Tonka beans are the seeds of tonka bean trees which are indigenous to tropical South America. The fruit is about the size of a small mango. The dried fruit yields a single kidney-shaped seed or bean approximately 1-1/2 inches long. Before shipping the dried beans are soaked in rum. Through this processing, called crystallization, small crystals of a substance known as coumarin form on the outside of the beans.

Coumarin is the substance principally responsible for the vanilla-like aroma which makes the bean desirable for use principally in flavoring smoking tobacco. Some tonka beans are also used in the manufacture of perfumes, confectionery, bitters, liqueurs, artificial vanilla extract, and other products. In the United States, however, the use of coumarin, or commodities containing coumarin in food products, has in effect been prohibited under Food and Drug Administration Regulations since 1954 (21 CFR 3.33) because of the toxic properties attributable to coumarin. Coumarin (item 408.70) is considered in the summary on miscellaneous benzenoid aromatic or odoriferous compounds. Both the natural product and the synthetic product made from benzenoid chemicals are called coumarin.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
193.10	Tonka beans	12.5¢ per lb.	10¢ per lb.	6¢ per lb.

The tabulation above shows the column 1 rate of duty in effect prior to January 1, 1968, and modifications therein as a result of concessions granted by the United States in the sixth round of trade negotiations under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the five annual rate modifications are shown above (see the TSUSA-1969 for the other stages). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty (11 cents per pound) in effect on December 31, 1968, based on dutiable imports in 1968, averaged 25.2 percent.

Tonka beans are gathered from wild trees in Venezuela and Brazil, and from cultivated trees in Trinidad. The beans from Venezuela generally bring the highest price, whereas Brazil's exports--smaller beans from a different species of tree--generally bring the lowest price.

During the period 1963-68, U.S. annual imports of tonka beans have averaged 344,000 pounds with an average value of $236,000. The year to year volume has been erratic due to normal changes in crop output. During recent years Venezuela has been the leading supplier of U.S. imports, with Trinidad second and Brazil third (see table).

Tonka beans: U.S. imports for consumption, by principal sources, 1963-68

Source	1963	1964	1965	1966	1967	1968
	Quantity (pounds)					
Venezuela	124,705	155,417	157,944	227,463	309,218	123,938
Trinidad and Tobago	43,781	108,226	87,517	249,626	144,718	103,347
Brazil	27,555	65,015	35,909	4,409	15,578	5,798
All other	-	47,688	543	-	1/ 23,546	-
Total	196,041	376,346	281,913	481,498	493,060	233,083
	Value					
Venezuela	$118,685	$ 56,764	$ 87,097	$269,581	$176,977	$ 51,030
Trinidad and Tobago	34,236	70,225	75,383	221,330	67,418	46,500
Brazil	15,370	30,457	17,761	2,205	6,854	4,348
All other	-	49,757	1,666	-	1/14,415	-
Total	168,291	207,203	181,907	493,116	265,664	101,878
	Unit value (per pound)					
Venezuela	$0.95	$0.37	$0.55	$1.19	$0.57	$0.41
Trinidad and Tobago	.78	.65	.86	..87	.47	.45
Brazil	.56	.47	.49	.50	.44	.75
All other	-	1.04	3.07	-	.61	-
Average	.86	.55	.64	1.02	.54	.44

1/ All from French West Indies.

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

Commodity	TSUS item
Vanilla beans	193.15

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

Imports supply all of the vanilla beans consumed in the United States.

Description and uses

Vanilla beans are the cured and full-grown unripe fruit, or pod, of a climbing orchid plant native to Mexico. The dark-brown cured vanilla pods are usually eight inches or more in length, are oily in appearance, and have the characteristic vanilla odor. They contain 12 percent or more of extractable aromatic constituents, about a quarter of which is vanillin. Natural vanilla extract consists of the extractives from vanilla beans dissolved in an alcoholic solution, frequently containing about 35 percent ethyl alcohol by weight. Such extracts are included under TSUS items 450.30-450.50. Vanilla extract is consumed as a household and industrial food flavoring, primarily for ice cream and confectionery, though some is used to flavor liqueurs and beverages; it is also used in perfumery.

Because it contains other aromatic substances as well as vanillin and has a distinctive flavor perferred by its users, natural vanilla extract commands a price several times as large as that of synthetic vanillin, generally made from lignin, a woodpulp byproduct. A product known as vanilla-vanillin consists of a blend of vanilla extract and synthetic vanillin.

U.S. tariff treatment

The column 1 rates of duty applicable to imports (see general headnote 3 in the TSUSA-1969) are as follows:

TSUS item	Commodity	Rate prior to Jan. 1, 1968	U.S. concessions granted in 1964-67 trade conference (Kennedy Round)	
			Second stage, effective Jan. 1, 1969	Final stage, effective Jan. 1, 1972
193.15	Vanilla beans	7.5¢ per lb.	4¢ per lb.	Free

The tabulation above shows the column 1 rate in effect prior to January 1, 1968, and modifications therein as a result of a concession granted by the United States in the 1964-67 trade conference under the General Agreement on Tariffs and Trade. Only the second (that in effect during 1969) and final stages of the annual rate modifications are shown above (see the TSUSA-1969 for all the staged rates). During the period from August 31, 1963, when the TSUS became effective, to December 31, 1967, the prior rate shown above did not change.

The ad valorem equivalent of the specific rate of duty (6¢ per lb.) in effect on December 31, 1968, based on dutiable imports in 1968, ranged from 0.2 percent to 6.0 percent and averaged 1.3 percent.

U.S. consumption

U.S. consumption of vanilla beans has been equal to imports. In the 6-year period 1963-1968, these imports averaged 1.7 million pounds annually, with an average value of $7.9 million (see table.)

On December 31, 1965, the Food and Drug Administration's Standards of Identity for Frozen Desserts (21 CFR 20.1) required vanilla flavored ice cream to be labeled "artificial vanilla", if less than 50 percent of the vanilla flavoring used was natural vanilla. Anticipating this, importers built up their inventory of vanilla beans with a resulting increase in imports to a high of 2.2 million pounds. Imports declined slightly in 1966 and 1967, then rose in 1968 to the 1965 level. In recent years, the principal supplier has been the Malagasy Republic.

U.S. exports of vanilla beans, if any, are negligible.

Vanilla beans: U.S. imports for consumption, by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Malagasy Republic	861	1,366	1,742	1,576	1,005	1,879
Indonesia	56	85	131	123	129	146
Malaysia	-	46	93	33	12	16
Mexico	31	24	66	31	91	82
All other	117	108	121	89	46	37
Total	1,065	1,629	2,158	1,852	1,283	2,160
	Value (1,000 dollars)					
Malagasy Republic	5,640	6,417	7,663	7,166	4,616	8,886
Indonesia	320	234	378	345	350	356
Malaysia	-	244	422	149	55	72
Mexico	247	173	551	124	380	338
All other	421	426	460	412	237	183
Total	6,628	7,494	9,474	8,196	5,638	9,835
	Unit value (per pound)					
Malagasy Republic	$6.55	$4.70	$4.40	$4.54	$4.59	$4.73
Indonesia	5.71	2.75	2.89	2.80	2.71	2.44
Malaysia	-	5.30	4.31	4.52	4.58	4.50
Mexico	7.97	7.21	8.35	4.00	4.18	4.12
All other	3.59	3.94	3.80	4.63	5.15	4.95
Average	6.22	4.60	4.39	4.43	4.39	4.55

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

Note.--Vanilla beans are a tropical agricultural product and are not commercially important as exports from the United States or U.S. Territories.

Commodity	TSUS item
Wafers, not edible----------	193.20

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

U.S. consumption of inedible wafers is supplied almost entirely by imports, which averaged about $134,000 annually during 1963-68. U.S. production and exports are believed to be negligible.

Comment

Inedible wafers consist of a mixture of flour and water, lightly baked, often in the form of large sheets. The language "not edible" in the tariff provision is not construed to mean, for instance, that the wafers are not fit for human consumption. The term rather is used in the more general sense that they are not usually eaten as food by humans in the form as made. These wafers are unleavened, brittle, tasteless sheets about the thickness of heavy paper, and are often called wafer paper. They are used principally by bakers as pan linings which become part of the cakes baked on them, as nonadhesive surfaces for candies, as fish food (principally for goldfish), as capsules or cachets to make the administration of certain medicines more palatable, and as communion wafers.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
193.20	Wafers, not edible----------	Free

This rate is that provided for in the original Tariff Act of 1930. Inedible wafers have been bound duty-free under the General Agreement on Tariffs and Trade since January 1, 1948.

Edible wafers are included in TSUS item 182.20. They are designed for human consumption in their original form and are not for further manufacture.

Domestic consumption of inedible wafers is believed to be supplied largely by imports. During 1963-68 there has been an overall

increase in U.S. imports of such wafers (see table); the annual average for this period was about 72,000 pounds, valued at $134,000. In recent years, the Netherlands, Italy, the United Kingdom, West Germany, and Belgium have been the principal sources of these imports.

Wafers, not edible: U.S. imports for consumption, by principal sources, 1963-68

Country	1963	1964	1965	1966	1967	1968
	Quantity (1,000 pounds)					
Netherlands	19	26	21	29	18	13
Belgium	1	6	6	18	3	20
Italy	16	10	17	21	35	33
United Kingdom	15	15	5	4	2	2
West Germany	3	3	18	4	4	3
All other	3	4	12	1/ 8	11	5
Total	57	64	79	84	73	76
	Value (1,000 dollars)					
Netherlands	42	52	55	55	47	42
Belgium	5	35	29	19	12	26
Italy	8	6	21	32	46	51
United Kingdom	36	42	14	10	6	4
West Germany	5	2	4	4	10	4
All other	12	9	18	15	13	12
Total	108	146	141	135	134	139
	Unit value (per pound)					
Netherlands	$2.21	$1.97	$2.66	$1.92	$2.56	$3.17
Belgium	4.68	5.41	5.26	1.08	4.51	1.29
Italy	.54	.63	1.23	1.51	1.32	1.55
United Kingdom	2.47	2.78	2.74	2.43	3.20	2.12
West Germany	1.60	.91	.25	1.00	2.69	1.26
All other	3.10	2.45	1.36	1.80	1.17	2.33
Average	1.89	2.29	1.79	1.61	1.84	1.84

1/ Includes an estimated 4,000 pounds from Poland. Invoice analysis indicates that the reported entry of 429,897 pounds from Poland was actually the number of wafers entered.

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

Commodity	TSUS item
Crude vegetable substances, not elsewhere enumerated	193.25

Note.--For the statutory description, see the Tariff Schedules of the United States Annotated (TSUSA-1969).

U.S. trade position

There is little commercial domestic production of most of the articles currently being imported under this item.

Comment

The most important items in this summary are generally evergreen boughs and branches (referred to herein as florists' greens), cassava roots, corn husks, nongerminating pumpkin seeds, and juniper berries. Numerous items of lesser significance include loofa sponges, jumping beans, calabash gourds, sloe berries, and various crude vegetable materials which can be used for the preparation of ingredients of perfumes, flavorings, pharmaceuticals, and insecticides. These substances are still considered in a crude state if subjected to processing such as that necessary for shipping the materials, including drying (in some cases), cleaning or washing, and packing. Substances sorted as to size and quality ordinarily would not be considered to be in a crude state.

The column 1 rate of duty applicable to imports (see general headnote 3 in the TSUSA-1969) is as follows:

TSUS item	Commodity	Rate of duty
193.25	Vegetable substances, crude, not specially provided for.	Free

This rate of duty provided in the TSUS effective August 31, 1963, was derived from a number of paragraphs of the previous schedules most of which provided for duty-free entry.

Statistics are not available on either domestic production or imports of the individual items concerned. Imports averaged $3.7 million in the period 1964-68 (see table). The only significant domestic production of products of the type imported is believed to consist of florists' greens.

Florists' greens generally are small evergreen branches used as backing in floral arrangements; but they also include evergreen boughs and branches for use in Christmas decorations. The principal florists' greens in the order of importance are huckleberry, salal, and fern. Domestic production for floral arrangements is centered in Washington and Oregon. Wholesalers in these States supplement local production with large amounts of salal from Canada and small amounts of huckleberry and fern from Canada and California. These three evergreens are gathered wild from the forests by independent pickers, sold to wholesalers who operate numerous packing houses, and are distributed throughout the United States. There are two major U.S. distributors and a number of smaller ones. Much of the imports from Canada are distributed through the same channels as those gathered in this country. The sizable imports of salal supplement a somewhat limited natural supply in the United States.

Fern leaves produced domestically in the Northwest meet competition in the South Central States from imported tropical fern-like branches known as camadors (from the chamaedorea palm). These branches enter from Guatemala and Mexico. While sold mainly in the South Central States, camadors also are sold to a small extent throughout the east coast. Camadors also compete somewhat with other domestically produced florists' greens since most evergreen branches or leaves are used interchangeably to some degree.

Evergreens used for Christmas decorations include the branches of balsam, cedar, Douglas fir, and holly. A large part of the production is a byproduct of the Christmas tree industry (see item 192.10). Significant quantities of balsam, cedar, and Douglas fir branches are imported from Canada. Holly is obtained mostly from domestic sources--both wild and cultivated.

An evergreen called ruscus is imported in minor volume from Europe for decorative purposes.

There is a small trade in palm leaves for use for religious ceremonies and for decorative purposes involving imported leaves as well as some collected in Florida.

Cassava root is used as a vegetable and in the production of cassava flour, starch, and tapioca (see summary on item 132.35). The roots are imported fresh from several tropical countries. The vast bulk comes from the Dominican Republic, Guatemala, and Mexico. Virtually none is grown domestically.

Corn husks are imported from Mexico for processing and manufacture into dolls. Many small producers of corn husk dolls, located mostly in Texas, import these husks. There is no significant collecting of domestic corn husks.

The pumpkin seeds included herein will not pass a germination test (pumpkin seeds passing a germination test are included under TSUS item 127.10), nor have they been processed for human consumption by roasting or salting (such processed products are provided for under item 182.95). These pumpkin seeds are imported raw and roasted in this country to be sold as confectionery items similar to nuts. The vast bulk of the imports enter from Mexico; the remainder enter from Yugoslavia. Seeds from Mexico are from a type of squash, whereas those from Yugoslavia are from pumpkins. All pumpkin seeds from Yugoslavia and about half of those from Mexico have been shelled before they enter this country. There are many firms throughout the United States that process these seeds, but the largest volume is probably processed in the New York City area.

Two grades of juniper berries, which articles are not berries within the meaning of item 146.62, are imported. The high-grade type is used by distillers in the manufacture of gin. The regular grade of berries is used in the manufacture of pharmaceuticals. High-grade juniper berries are imported from Italy. Regular-grade berries are imported mainly from Italy and Yugoslavia and small amounts come in from other South European countries and from Canada. There is no known commerce in domestic juniper berries.

Minor items in this tariff category include loofa sponges (a porous item obtained from a gourd) for bathing and other uses, calabash gourds for smokers' pipes, sloe berries for sloe gin, locust beans for the manufacture of locust bean gum, and jumping beans and tagua nuts for novelties. A wide variety of seeds, leaves, roots, flower heads, and other items (collectively known as botanicals), are imported to be processed into essential oils, extracts, crude drugs, and other ingredients for the manufacture of perfumes, flavorings, pharmaceuticals, and insecticides. For information on essential oils, extracts, crude drugs, and similar items produced from various vegetable materials covered by this summary, see summaries on TSUS schedule 4. Minor vegetable items include lycopodium powder (from a moss), oakmoss (from a lichen), angelica root, orris root, sarsaparilla root, rose hips, orange flowers, lavender flowers, nongerminating sabadilla seeds, digitalis seeds, and parsley seed. There also are small amounts of pollen imported for bee feed and pollination.

Previous to December 7, 1965, a principal article in this item was seaweed. All seaweed, crude, ground, or pulverized, however, was provided for separately by the Tariff Schedules Technical Amendments Act of 1965 (P.L. 89-241) in TSUS 192.05. Import statistics, nevertheless, have erroneously continued to include quantities of seaweed under item 193.25--particularly from Mexico.

Crude vegetable substances, not elsewhere enumerated: U.S. imports, by principal sources, Sept.-Dec. 1963 and 1964-68

(In thousands of dollars)

Source	Sept.-Dec. 1963	1964	1965	1966	1967	1968
Mexico	323	1,046	841	1,196	1,063	1,775
Canada	377	676	822	877	1,051	1,555
Guatemala	14	158	215	320	539	678
Dominican Republic	61	266	221	220	244	283
Italy	65	284	181	199	167	210
Yugoslavia	6	37	79	71	103	208
Angola	-	-	-	-	-	120
Republic of South Africa	8	61	84	-	14	72
Japan	10	20	14	19	14	55
Cyprus	-	74	16	10	16	42
Bulgaria	-	2	7	13	13	40
Malagasy	13	4	-	-	-	22
Belgium	7	20	7	21	21	20
Venezuela	5	1/	19	68	19	17
West Germany	-	22	29	49	44	14
Portugal	6	171	180	5	2	11
Morocco	34	37	54	25	11	11
All other	76	396	308	147	108	107
Total	1,005	3,274	3,082	3,240	3,429	5,240

1/ Less than $500.

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

Note.--Import statistics include quantities of merchandise not properly classifiable under item 193.25.

A P P E N D I X A

Tariff Schedules of the United States Annotated (1969): General headnotes and rules of interpretation, and excerpts relating to the items included in this volume.

NOTE: The shaded areas in this appendix cover headnotes and TSUS items not included in the summaries in this volume.

1. Tariff Treatment of Imported Articles. All articles imported into the customs territory of the United States from outside thereof are subject to duty or exempt therefrom as prescribed in general headnote 3.

2. Customs Territory of the United States. The term "customs territory of the United States", as used in the schedules, includes only the States, the District of Columbia, and Puerto Rico.

3. Rates of Duty. The rates of duty in the "Rates of Duty" columns numbered 1 and 2 of the schedules apply to articles imported into the customs territory of the United States as hereinafter provided in this headnote:

(a) Products of Insular Possessions.

(i) Except as provided in headnote 6 of schedule 7, part 2, subpart E, [and] except as provided in headnote 4 of schedule 7, part 7, subpart A, articles imported from insular possessions of the United States which are outside the customs territory of the United States are subject to the rates of duty set forth in column numbered 1 of the schedules, except that all such articles the growth or product of any such possession, or manufactured or produced in any such possession from materials the growth, product, or manufacture of any such possession or of the customs territory of the United States, or of both, which do not contain foreign materials to the value of more than 50 percent of their total value, coming to the customs territory of the United States directly from any such possession, and all articles previously imported into the customs territory of the United States with payment of all applicable duties and taxes imposed upon or by reason of importation which were shipped from the United States, without remission, refund, or drawback of such duties or taxes, directly to the possession from which they are being returned by direct shipment, are exempt from duty.

(ii) In determining whether an article produced or manufactured in any such insular possession contains foreign materials to the value of more than 50 percent, no material shall be considered foreign which, at the time such article is entered, may be imported into the customs territory from a foreign country, other than Cuba or the Philippine Republic, and entered free of duty.

(b) Products of Cuba. Products of Cuba imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty set forth in column numbered 1 of the schedules. Preferential rates of duty for such products apply only as shown in the said column 1. 1/

(c) Products of the Philippine Republic.

(i) Products of the Philippine Republic imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty which are set forth in column numbered 1 of the schedules or to fractional parts of the rates in the said column 1, as hereinafter prescribed in subdivisions (c)(ii) and (c)(iii) of this headnote.

(ii) Except as otherwise prescribed in the schedules, a Philippine article, as defined in subdivision (c)(iv) of this headnote, imported into the customs territory of the United States and entered on or before July 3, 1974, is subject to that rate which results from the application of the following percentages to the most favorable rate of duty (i.e., including a preferential rate prescribed for any product of Cuba) set forth in column numbered 1 of the schedules:

(A) 20 percent, during calendar years 1963 through 1964,

(B) 40 percent, during calendar years 1965 through 1967,

(C) 60 percent, during calendar years 1968 through 1970,

(D) 80 percent, during calendar years 1971 through 1973,

(E) 100 percent, during the period from January 1, 1974, through July 3, 1974.

(iii) Except as otherwise prescribed in the schedules, products of the Philippine Republic, other than Philippine articles, are subject to the rates of duty (except any preferential rates prescribed for products of Cuba) set forth in column numbered 1 of the schedules.

(iv) The term "Philippine article", as used in the schedules, means an article which is the product of the Philippines, but does not include any article produced with the use of materials imported into the Philippines which are products of any foreign country (except materials produced within the customs territory of the United States) if the aggregate value of such imported materials when landed at the Philippine port of entry, exclusive of any landing cost and Philippine duty, was more than 20 percent of the appraised customs value of the article imported into the customs territory of the United States.

(d) Products of Canada.

(i) Products of Canada imported into the customs territory of the United States, whether imported directly or indirectly, are subject to the rates of duty set forth in column numbered 1 of the schedules. The rates of duty for a Canadian article, as defined in subdivision (d)(ii) of this headnote, apply only as shown in the said column numbered 1.

(ii) The term "Canadian article", as used in the schedules, means an article which is the product of Canada, but does not include any article produced with the use of materials imported into Canada which are products of any foreign country (except materials produced within the customs territory of the United States), if the aggregate value of such imported materials when landed at the Canadian port of entry (that is, the actual purchase price, or if not purchased, the export value, of such materials, plus, if not included therein, the cost of transporting such materials to Canada but exclusive of any landing cost and Canadian duty) was --

(A) with regard to any motor vehicle or automobile truck tractor entered on or before December 31, 1967, more than 60 percent of the appraised value of the article imported into the customs territory of the United States; and

(B) with regard to any other article (including any motor vehicle or automobile truck tractor entered after December 31, 1967), more than 50 percent of the appraised value of the article imported into the customs territory of the United States.

(e) Products of Communist Countries. Notwithstanding any of the foregoing provisions of this headnote, the rates of duty shown in column numbered 2 shall apply to products, whether imported directly or indirectly, of the following countries and areas pursuant to section 401 of the Tariff Classification Act of 1962, to section 231 or 257(e) (2) of the Trade Expansion Act of 1962, or to

1/ By virtue of section 401 of the Tariff Classification Act of 1962, the application to products of Cuba of either a preferential or other reduced rate of duty in column 1 is suspended. See general headnote 3(e), infra. The provisions for preferential Cuban rates continue to be reflected in the schedules because, under section 401, the rates therefor in column 1 still form the bases for determining the rates of duty applicable to certain products, including "Philippine articles".

action taken by the President thereunder:

Albania
Bulgaria
China (any part of which may be under Communist domination or control)
Cuba 1/
Czechoslovakia
Estonia
Germany (the Soviet zone and the Soviet sector of Berlin)
Hungary
Indochina (any part of Cambodia, Laos, or Vietnam which may be under Communist domination or control)
Korea (any part of which may be under Communist domination or control)
Kurile Islands
Latvia
Lithuania
Outer Mongolia
Rumania
Southern Sakhalin
Tanna Tuva
Tibet
Union of Soviet Socialist Republics and the area in East Prussia under the provisional administration of the Union of Soviet Socialist Republics.

(f) Products of All Other Countries. Products of all countries not previously mentioned in this headnote imported into the customs territory of the United States are subject to the rates of duty set forth in column numbered 1 of the schedules.

(g) Effective Date; Exceptions - Staged Rates of Duty. 2/ Except as specified below or as may be specified elsewhere, pursuant to section 501(a) of the Tariff Classification Act of 1962 (P.L. 87-456, approved May 24, 1962), the rates of duty in columns numbered 1 and 2 become effective with respect to articles entered on or after the 10th day following the date of the President's proclamation provided for in section 102 of the said Act. If, in column numbered 1, any rate of duty or part thereof is set forth in parenthesis, the effective date shall be governed as follows:

(i) If the rate in column numbered 1 has only one part (i.e., 8¢ (10¢) per lb.), the parenthetical rate (viz., 10¢ per lb.) shall be effective as to articles entered before July 1, 1964, and the other rate (viz., 8¢ per lb.) shall be effective as to articles entered on or after July 1, 1964.

(ii) If the rate in column numbered 1 has two or more parts (i.e., 5¢ per lb. + 50% ad val.) and has a parenthetical rate for either or both parts, each part of the rate shall be governed as if it were a one-part rate. For example, if a rate is expressed as "4¢ (4.5¢) per lb. + 8% (9%) ad val.", the rate applicable to articles entered before July 1, 1964, would be "4.5¢ per lb. + 9% ad val."; the rate applicable to articles entered on or after July 1, 1964, would be "4¢ per lb. + 8% ad val.".

(iii) If the rate in column numbered 1 is marked with an asterisk (*), the foregoing provisions of (i) and (ii) shall apply except that "January 1, 1964" shall be substituted for "July 1, 1964", wherever this latter date appears.

1/ In Proclamation 3447, dated February 3, 1962, the President, acting under authority of section 620(a) of the Foreign Assistance Act of 1961 (75 Stat. 445), as amended, prohibited the importation into the United States of all goods of Cuban origin and all goods imported from or through Cuba, subject to such exceptions as the Secretary of the Treasury determines to be consistent with the effective operation of the embargo.

2/ The purpose of headnote 3(g) was to provide for an effective date for the rates of duty initially contained in the Tariff Schedules of the United States. By Presidential Proclamation 3548 of August 21, 1963, these rates of duty, except as noted in subparagraphs (i), (ii), and (iii) of headnote 3(g), became effective on August 31, 1963.

4. Modification or Amendment of Rates of Duty. Except as otherwise provided in the Appendix to the Tariff Schedules --

(a) a statutory rate of duty supersedes and terminates the existing rates of duty in both column numbered 1 and column numbered 2 unless otherwise specified in the amending statute;

(b) a rate of duty proclaimed pursuant to a concession granted in a trade agreement shall be reflected in column numbered 1 and, if higher than the then existing rate in column numbered 2, also in the latter column, and shall supersede but not terminate the then existing rate (or rates) in such column (or columns);

(c) a rate of duty proclaimed pursuant to section 336 of the Tariff Act of 1930 shall be reflected in both column numbered 1 and column numbered 2 and shall supersede but not terminate the then existing rates in such columns; and

(d) whenever a proclaimed rate is terminated or suspended, the rate shall revert, unless otherwise provided, to the next intervening proclaimed rate previously superseded but not terminated or, if none, to the statutory rate.

5. Intangibles. For the purposes of headnote 1 --

(a) corpses, together with their coffins and accompanying flowers,
(b) currency (metal or paper) in current circulation in any country and imported for monetary purposes,
(c) electricity,
(d) securities and similar evidences of value, and
(e) vessels which are not "yachts or pleasure boats" within the purview of subpart D, part 6, of schedule 6,

are not articles subject to the provisions of these schedules.

6. Containers or Holders for Imported Merchandise. For the purposes of the tariff schedules, containers or holders are subject to tariff treatment as follows:

(a) Imported Empty: Containers or holders if imported empty are subject to tariff treatment as imported articles and as such are subject to duty unless they are within the purview of a provision which specifically exempts them from duty.

(b) Not Imported Empty: Containers or holders if imported containing or holding articles are subject to tariff treatment as follows:

(i) The usual or ordinary types of shipping or transportation containers or holders, if not designed for, or capable of, reuse, and containers of usual types ordinarily sold at retail with their contents, are not subject to treatment as imported articles. Their cost, however, is, under section 402 or section 402a of the tariff act, a part of the value of their contents and if their contents are subject to an ad valorem rate of duty such containers or holders are, in effect, dutiable at the same rate as their contents, except that their cost is deductible from dutiable value upon submission of satisfactory proof that they are products of the United States which are being returned without having been advanced in value or improved in condition by any means while abroad.

(ii) The usual or ordinary types of shipping or transportation containers or holders, if designed for, or capable of, reuse, are subject to treatment as imported articles separate and distinct from their contents. Such holders or containers are not part of the dutiable value of their contents and are separately subject to duty upon each and every importation into the customs territory of the United States unless within the scope of a provision specifically exempting them from duty.

(iii) In the absence of context which requires otherwise, all other containers or holders are subject to the same treatment as specified in (ii) above for usual or ordinary types of shipping or transportation containers or holders designed for, or capable of, reuse.

7. Commingling of Articles. (a) Whenever articles subject to different rates of duty are so packed together or mingled that the quantity or value of each class of articles cannot be readily ascertained by customs officers (without physical segregation of the shipment or the contents of any entire package thereof), by one or more of the following means:

(i) sampling,

(ii) verification of packing lists or other documents filed at the time of entry, or

(iii) evidence showing performance of commercial settlement tests generally accepted in the trade and filed in such time and manner as may be prescribed by regulations of the Secretary of the Treasury,

the commingled articles shall be subject to the highest rate of duty applicable to any part thereof unless the consignee or his agent segregates the articles pursuant to subdivision (b) hereof.

(b) Every segregation of articles made pursuant to this headnote shall be accomplished by the consignee or his agent at the risk and expense of the consignee within 30 days (unless the Secretary authorizes in writing a longer time) after the date of personal delivery or mailing, by such employee as the Secretary of the Treasury shall designate, of written notice to the consignee that the articles are commingled and that the quantity or value of each class of articles cannot be readily ascertained by customs officers. Every such segregation shall be accomplished under customs supervision, and the compensation and expenses of the supervising customs officers shall be reimbursed to the Government by the consignee under such regulations as the Secretary of the Treasury may prescribe.

(c) The foregoing provisions of this headnote do not apply with respect to any part of a shipment if the consignee or his agent furnishes, in such time and manner as may be prescribed by regulations of the Secretary of the Treasury, satisfactory proof --

(i) that such part (A) is commercially negligible, (B) is not capable of segregation without excessive cost, and (C) will not be segregated prior to its use in a manufacturing process or otherwise, and

(ii) that the commingling was not intended to avoid the payment of lawful duties.

Any article with respect to which such proof is furnished shall be considered for all customs purposes as a part of the article, subject to the next lower rate of duty, with which it is commingled.

(d) The foregoing provisions of this headnote do not apply with respect to any shipment if the consignee or his agent shall furnish, in such time and manner as may be prescribed by regulations of the Secretary of the Treasury, satisfactory proof --

(i) that the value of the commingled articles is less than the aggregate value would be if the shipment were segregated;

(ii) that the shipment is not capable of segregation without excessive cost and will not be segregated prior to its use in a manufacturing process or otherwise; and

(iii) that the commingling was not intended to avoid the payment of lawful duties.

Any merchandise with respect to which such proof is furnished shall be considered for all customs purposes to be dutiable at the rate applicable to the material present in greater quantity than any other material.

(e) The provisions of this headnote shall apply only in cases where the schedules do not expressly provide a particular tariff treatment for commingled articles.

8. Abbreviations. In the schedules the following symbols and abbreviations are used with the meanings respectively indicated below:

$	-	dollars
¢	-	cents
%	-	percent
+	-	plus
ad val.	-	ad valorem
bu.	-	bushel
cu.	-	cubic
doz.	-	dozen
ft.	-	feet
gal.	-	gallon
in.	-	inches
lb.	-	pounds
oz.	-	ounces
sq.	-	square
wt.	-	weight
yd.	-	yard
pcs.	-	pieces
prs.	-	pairs
lin.	-	linear
I.R.C.	-	Internal Revenue Code

9. Definitions. For the purposes of the schedules, unless the context otherwise requires --

(a) the term "entered" means entered, or withdrawn from warehouse, for consumption in the customs territory of the United States;

(b) the term "entered for consumption" does not include withdrawals from warehouse for consumption;

(c) the term "withdrawn for consumption" means withdrawn from warehouse for consumption and does not include articles entered for consumption;

(d) the term "rate of duty" includes a free rate of duty; rates of duty proclaimed by the President shall be referred to as "proclaimed" rates of duty; rates of duty enacted by the Congress shall be referred to as "statutory" rates of duty; and the rates of duty in column numbered 2 at the time the schedules become effective shall be referred to as "original statutory" rates of duty;

(e) the term "ton" means 2,240 pounds, and the term "short ton" means 2,000 pounds;

(f) the terms "of", "wholly of", "almost wholly of", "in part of" and "containing", when used between the description of an article and a material (e.g., "furniture of wood", "woven fabrics, wholly of cotton", etc.), have the following meanings:

(i) "of" means that the article is wholly or in chief value of the named material;

(ii) "wholly of" means that the article is, except for negligible or insignificant quantities of some other material or materials, composed completely of the named material;

(iii) "almost wholly of" means that the essential character of the article is imparted by the named material, notwithstanding the fact that significant quantities of some other material or materials may be present; and

(iv) "in part of" or "containing" mean that the article contains a significant quantity of the named material.

With regard to the application of the quantitative concepts specified in subparagraphs (ii) and (iv) above, it is intended that the de minimis rule apply.

10. General Interpretative Rules. For the purposes of these schedules --

(a) the general, schedule, part, and subpart headnotes, and the provisions describing the classes of imported articles and specifying the rates of duty or other import restrictions to be imposed thereon are subject to the rules of interpretation set forth herein and to such other rules of statutory interpretation, not inconsistent therewith, as have been or may be developed under administrative or judicial rulings;

(b) the titles of the various schedules, parts, and subparts and the footnotes therein are intended for convenience in reference only and have no legal or interpretative significance;

(c) an imported article which is described in two or more provisions of the schedules is classifiable in the provision which most specifically describes it; but, in applying this rule of interpretation, the following considerations shall govern:

(i) a superior heading cannot be enlarged by inferior headings indented under it but can be limited thereby;

(ii) comparisons are to be made only between provisions of coordinate or equal status, i.e., between the primary or main superior headings of the schedules or between coordinate inferior headings which are subordinate to the same superior heading;

(d) if two or more tariff descriptions are equally applicable to an article, such article shall be subject to duty under the description for which the original statutory rate is highest, and, should the highest original statutory rate be applicable to two or more of such descriptions, the article shall be subject to duty under that one of such descriptions which first appears in the schedules;

(e) in the absence of special language or context which otherwise requires --

(i) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of articles of that class or kind to which the imported articles belong, and the controlling use is the chief use, i.e., the use which exceeds all other uses (if any) combined;

(ii) a tariff classification controlled by the actual use to which an imported article is put in the United States is satisfied only if such use is intended at the time of importation, the article is so used, and proof thereof is furnished within 3 years after the date the article is entered;

(f) an article is in chief value of a material if such material exceeds in value each other single component material of the article;

(g) a headnote provision which enumerates articles not included in a schedule, part, or subpart is not necessarily exhaustive, and the absence of a particular article from such headnote provision shall not be given weight in determining the relative specificity of competing provisions which describe such article;

(h) unless the context requires otherwise, a tariff description for an article covers such article, whether assembled or not assembled, and whether finished or not finished;

(ij) a provision for "parts" of an article covers a product solely or chiefly used as a part of such article, but does not prevail over a specific provision for such part.

11. Issuance of Rules and Regulations. The Secretary of the Treasury is hereby authorized to issue rules and regulations governing the admission of articles under the provisions of the schedules. The allowance of an importer's claim for classification, under any of the provisions of the schedules which provide for total or partial relief from duty or other import restrictions on the basis of facts which are not determinable from an examination of the article itself in its condition as imported, is dependent upon his complying with any rules or regulations which may be issued pursuant to this headnote.

12. The Secretary of the Treasury is authorized to prescribe methods of analyzing, testing, sampling, weighing, gauging, measuring, or other methods of ascertainment whenever he finds that such methods are necessary to determine the physical, chemical, or other properties or characteristics of articles for purposes of any law administered by the Customs Service.

General statistical headnotes:

1. Statistical Requirements for Imported Articles. Persons making customs entry or withdrawal of articles imported into the customs territory of the United States shall complete the entry or withdrawal forms, as provided herein and in regulations issued pursuant to law, to provide for statistical purposes information as follows:

(a) the number of the Customs district and of the port where the articles are being entered for consumption or warehouse, as shown in Statistical Annex A of these schedules;

(b) the name of the carrier or the means of transportation by which the articles were transported to the first port of unloading in the United States;

(c) the foreign port of lading;

(d) the United States port of unlading;

(e) the date of importation;

(f) the country of origin of the articles expressed in terms of the designation therefor in Statistical Annex B of these schedules;

(g) a description of the articles in sufficient detail to permit the classification thereof under the proper statistical reporting number in these schedules;

(h) the statistical reporting number under which the articles are classifiable;

(ij) gross weight in pounds for the articles covered by each reporting number when imported in vessels or aircraft;

(k) the net quantity in the units specified herein for the classification involved;

(l) the U.S. dollar value in accordance with the definition in Section 402 or 402a of the Tariff Act of 1930, as amended, for all merchandise including that free of duty or dutiable at specific rates; and

(m) such other information with respect to the imported articles as is provided for elsewhere in these schedules.

2. Statistical Annotations. (a) The statistical annotations to the Tariff Schedules of the United States consist of --

(i) the 2-digit statistical suffixes,
(ii) the indicated units of quantity,
(iii) the statistical headnotes and annexes, and
(iv) the italicised article descriptions.

(b) The legal text of the Tariff Schedules of the United States consists of the remaining text as more specifically identified in headnote 10(a) of the general headnotes and rules of interpretation.

(c) The statistical annotations are subordinate to the provisions of the legal text and cannot change their scope.

3. Statistical Reporting Number. (a) General Rule: Except as provided in paragraph (b) of this headnote, and in the absence of specific instructions to the contrary elsewhere, the statistical reporting number for an article consists of the 7-digit number formed by combining the 5-digit item number with the appropriate 2-digit statistical suffix. Thus, the statistical reporting number for live monkeys dutiable under item 100.95 is "100.9520".

(b) Wherever in the tariff schedules an article is classifiable under a provision which derives its rate of duty from a different provision, the statistical reporting number is, in the absence of specific instructions to the contrary elsewhere, the 7-digit number for the basic provision followed by the item number of the provision from which the rate is derived. Thus, the statistical reporting number of mixed apple and grape juices, not containing over 1.0 percent of ethyl alcohol by volume, is "165.6500-165.40".

4. Abbreviations. (a) The following symbols and abbreviations are used with the meanings respectively indicated below:

s. ton	-	short ton
C.	-	one hundred
Cwt.	-	100 lbs.
mg.	-	milligram
M.	-	1,000
bd. ft.	-	board feet
M. bd. ft.	-	1,000 board feet
mc.	-	millicurie
cord	-	128 cubic feet
square	-	amount to cover 100 square feet of surface
sup. ft.	-	superficial foot
oz.	-	ounces avoirdupois
fl. oz.	-	fluid ounce
oz. troy	-	troy ounce
pf. gal.	-	proof gallon

(b) An "X" appearing in the column for units of quantity means that no quantity (other than gross weight) is to be reported.

(c) Whenever two separate units of quantity are shown for the same article, the "v" following one of such units means that the value of the article is to be reported with that quantity.

APPENDIX A

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

HISTORICAL NOTES

Amendments and Modifications

PROVISIONS	
Gen Hdnte--3(a)(i)	Language "Except as provided in headnote 6 of schedule 7, part 2, subpart E," added; language "except that all articles" deleted and language "except that all such articles" inserted in lieu thereof. Pub. L. 89-805, Secs. 1(a), (c), Nov. 10, 1966, 80 Stat. 1521, 1522, effective date Jan. 1, 1967. Language "Except as provided in headnote 4 of schedule 7, part 7, subpart A," added. Pub. L. 89-806, Secs. 2(b), (c), Nov. 10, 1966, 80 Stat. 1523, effective date March 11, 1967.

PROVISIONS	
Gen Hdnte--3(d), (e), (f) and (g)	Headnotes 3(d), (e), and (f) redesignated as headnotes 3(e), (f), and (g), respectively, and new headnote 3(d) added. Pub. L. 89-283, Secs. 401(a), 403, Oct. 21, 1965, 79 Stat. 1021, 1022; entered into force Oct. 22, 1965, by Pres. Proc. 3682, Oct. 21, 1965, 3 CFR, 1965 Supp., p. 68.
Gen Hdnte--6(b)(i)	Language "and containers of usual types ordinarily sold at retail with their contents," added. Pub. L. 89-241, Secs. 2(a), 4, Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS

APPENDIX A

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS

Part 1 - Live Animals

Part 2 - Meats
- A. Bird Meat
- B. Meats Other Than Bird Meat

Part 3 - Fish and Shellfish
- A. Fish, Fresh, Chilled, or Frozen
- B. Fish, Dried, Salted, Pickled, Smoked, or Kippered
- C. Fish in Airtight Containers
- D. Other Fish Products
- E. Shellfish

Part 4 - Dairy Products; Birds' Eggs
- A. Milk and Cream
- B. Butter, Oleomargarine, and Butter Substitutes
- C. Cheeses
- D. Other Milk Products
- E. Poultry and Other Birds' Eggs

Part 5 - Hides, Skins, and Leather; Furskins
- A. Hides, Skins, and Leather
- B. Furskins

Part 6 - Live Plants; Seeds
- A. Live Plants
- B. Seeds

Part 7 - Cereal Grains, Milled Grain Products, and Malts and Starches
- A. Grains
- B. Milled Grain Products
- C. Malts and Starches

Part 8 - Vegetables
- A. Vegetables, Fresh, Chilled, or Frozen
- B. Vegetables, Dried, Dealcoated, or Dehydrated
- C. Vegetables, Packed in Salt, in Brine, Pickled, or Otherwise Prepared or Preserved
- D. Mushrooms and Truffles

Part 9 - Edible Nuts and Fruits
- A. Edible Nuts
- B. Edible Fruits
- C. Fruit Flours, Pools, Pastes, Pulps, Jellies, Jams, Marmalades, and Butters
- D. Glacé Nuts, Fruits, and Other Vegetable Substances

Part 10 - Sugar, Cocoa, Confectionery
- A. Sugars, Syrups, and Molasses
- B. Cocoa
- C. Confectionery

Part 11 - Coffee, Tea, Maté, and Spices
- A. Coffee and Coffee Substitutes, Tea, Maté
- B. Spices and Spice Seeds

Part 12 - Beverages
- A. Fruit Juices
- B. Non-Alcoholic Beverages
- C. Fermented Alcoholic Beverages
- D. Spirits, Spirituous Beverages and Beverage Preparations

Part 13 - Tobacco and Tobacco Products

Part 14 - Animal and Vegetable Oils, Fats and Greases
- A. Oil-Bearing Vegetable Materials
- B. Vegetable Oils, Crude or Refined
- C. Animal Oils, Fats, and Greases, Crude or Refined
- D. Hardened Oils, Fats, and Greases; Mixtures

Part 15 - Other Animal and Vegetable Products
- A. Products of American Fisheries
- B. Edible Preparations
- C. Animal Feeds
- D. Feathers, Downs, Bristles and Hairs
- E. Shellac and Other Lacs; Natural Gums, Gum Resins, Resins, and Balsams; Turpentine and Rosin
- F. Miscellaneous Animal Products
- G. Miscellaneous Vegetable Products

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
		PART 15. - OTHER ANIMAL AND VEGETABLE PRODUCTS			
		Subpart A. - Products of American Fisheries			
		Subpart A headnotes:			
		1. An American fishery, for the purposes of this subpart, is a fishing enterprise conducted under the American flag by vessels of the United States on the high seas or in foreign waters in which such vessels have the right, by treaty or otherwise, to take fish or other marine products and may include a shore station operated in conjunction with such vessels by the owner or master thereof.			
		2. None of the items in this subpart shall apply to fish, fresh, chilled, or frozen, in the form of fillets, steaks, or slices substantially free of bone (including any of the foregoing divided into sections), if produced in a foreign country, or its territorial waters, in whole or in part with the use of the labor of persons who are not residents of the United States.			
180.00	60	Products of American fisheries (including fish, shellfish, and other marine animals, spermaceti, and marine animal oils) which have not been landed in a foreign country, or which, if so landed, have been landed solely for transshipment without change in condition	lb.	Free	Free
180.10	60	Fish (except cod, cusk, haddock, hake, mackerel, pollock, and ocean perch), the product of American fisheries, landed in a foreign country and there processed by removal of heads, viscera, or fins, or by chilling or freezing, or by any combination of these processes, but not otherwise processed	lb.	Free	Free
180.20	60	Products of American fisheries, prepared or preserved by an American fishery on the treaty coasts of Labrador, Magdalen Islands, and Newfoundland, as such coasts are defined in the convention of 1818 between the United States and Great Britain	lb.	Free	Free
		Subpart B. - Edible Preparations 1/			
		Subpart B headnotes:			
		1. This subpart covers preparations fit for human consumption not provided for elsewhere in schedule 1.			
		2. The standard of proof of vinegar is 4 percent by weight of acetic acid.			
		3. The term "edible preparations" in items 182.90, 182.92, 182.93, and 182.95 embraces only substances prepared and chiefly used as a human food or as an ingredient in such food, but such term does not include any substance provided for in schedule 4 (except part 2C thereof) or schedule 5 (except part 1K thereof).			

1/ Imports of articles in chief value of cane and beet sugar are, in certain circumstances, subject to an additional import duty. See Appendix to Tariff Schedules.

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
182.05	00	Antipasto	Lb.	8% ad val.	30% ad val.
		Balls, hash, pastes, puddings, and similar forms, all the foregoing of vegetables or of vegetables and meat, or fish (including shellfish), or both:			
182.10	00	Corned beef hash	Lb.	16% ad val.	35% ad val.
182.11	00	Other	X.	17% ad val.	35% ad val.
182.15	00	Bean cake, bean stick, miso, and similar products	Lb.	22% ad val.	35% ad val.
182.20	00	Biscuits, cake, cakes, wafers, and similar baked products, and puddings, all the foregoing by whatever name known, and whether or not containing chocolate, fruit, nuts, or confectionery	Lb.	5% ad val.	30% ad val.
182.25		Bread made with the use of yeast as the leavening substance		Free	Free
	20	*Hard crisp rye bread*	*Lb.*		
	50	*Other bread in loaf or roll form*	*Lb.*		
	60	*Other*	*Lb.*		
182.30	00	Cereal breakfast foods and similar cereal preparations, by whatever name known, processed further than milling	Lb.	4% ad val.	20% ad val.
182.32	00	Chewing gum	Lb.	8% ad val.	20% ad val.
		Macaroni, noodles, vermicelli, and similar alimentary pastes:			
182.35	00	Not containing egg or egg products	Lb.	0.8¢ per lb.	2¢ per lb.
182.36	00	Containing egg or egg products	Lb.	1.2¢ per lb.	3¢ per lb.
182.40	00	Non-alcoholic preparations of yeast extract (other than sauces) for flavoring or seasoning food	Lb.	8% ad val.	20% ad val.
		Sauces:			
182.45	00	Thin soy	Lb.	9.5% ad val.	35% ad val.
182.46	00	Other	Lb.	12% ad val.	35% ad val.
182.48	00	Seaweeds and other marine plants prepared for use as human food or as an ingredient in such food	Lb.	Free	Free
		Soups, soup rolls, soup tablets or cubes, and other soup preparations:			
182.50	00	Containing oysters or oyster juice	Lb.	4.5¢ per lb. (including wt. of immediate container)	8¢ per lb. (including wt. of immediate container)
182.52	00	Other	Lb.	11% ad val.	35% ad val.
		Vinegar:			
182.55	00	Malt	Pf. gal.	0.7¢ per proof gal.	8¢ per proof gal.
182.58	00	Other	Pf. gal.	3.5¢ per proof gal.	8¢ per proof gal.
182.70	00	Wild rice, crude or processed	Lb.	4% ad val.	10% ad val.
		Edible preparations not specially provided for (including prepared meals individually packaged):			
182.90	00	Of gelatin	X.	10% ad val.	25% ad val.
		Other:			
182.92	00	Containing over 5.5 percent by weight of butterfat and not packaged for retail sale	Lb.	20% ad val.	20% ad val.
182.93		If products of Cuba		16% ad val. (s)	
182.95		Other		16% ad val.	20% ad val.
	20	*Wheat gluten*	*Lb.*		
	40	*Other*	*Lb.*		

(s) = Suspended. See general headnote 3(b).

Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
		Subpart C. - Animal Feeds			
		Subpart C headnotes:			
		1. For the purposes of this subpart -- (a) the term "animal feeds and ingredients therefor" embraces products chiefly used as food for animals, or chiefly used as ingredients in such food, respectively, but such term does not include any product provided for in schedule 4 (except part 2E thereof) or schedule 5 (except part 1K thereof); and (b) the terms "mixed feeds" and "mixed-feed ingredients" in item 184.70 embrace products which are admixtures of grains (or products, including byproducts, obtained in milling grains) with molasses, oil cake, oil-cake meal, or other foodstuffs, and which consist of not less than 6 percent by weight of the said grains or grain products.			
		2. None of the provisions of this subpart cover fertilizer or fertilizer materials (see part 1I of schedule 4).			
184.10	00	Bran, shorts, and middlings obtained in milling grains	S. ton	1% ad val.	10% ad val.
184.20	00	Beet pulp, dried	S. ton	$1.02 per short ton	$1.45 per short ton
184.30	00	Brewers' and distillers' grains and malt sprouts	S. ton	66¢ per short ton	$1.45 per short ton
184.40	00	Hay	S. tons	36¢ per short ton	$5 per short ton
184.55	00	Straw (except flax straw and rice straw)	S. ton	30¢ per short ton	$1.50 per short ton
184.60	00	Grain hulls, ground or not ground	Cwt	1¢ per 100 lbs.	10¢ per 100 lbs.
		Grain or seed screenings, scalpings, chaff, or scourings, ground or not ground:			
184.65	00	Of flaxseed	S. ton	Free	10% ad val.
184.67	00	Other	S. ton	1% ad val.	10% ad val.
		Soy bean and other vegetable oil cake and oil-cake meal:			
184.50	00	Linseed oil cake and oil-cake meal	S. ton	0.2¢ per lb.	0.3¢ per lb.
184.52		Other		0.3¢ per lb.	0.1¢ per lb.
	10	Cottonseed oil cake and oil-cake meal	Lb.		
	90	Other	Lb.		
		Tankage; dried fish and whales; fish and whale scrap, meal and solubles; homogenized condensed fish and whales; all the foregoing not fit for human consumption:			
184.54	00	Cod-liver solubles	Lb	8% ad val.	20% ad val.
184.56		Other		Free	Free
	10	Fish or whale meat in airtight containers	Lb.		
	20	Tankage	S. ton		
	30	Scrap and meal	S. ton		
	40	Solubles	S. ton		
	50	Other	S. ton		

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty	
				1	2
		Animal feeds, and ingredients therefor, not specially provided for:			
		Meat, including meat offal, not fit for human consumption:			
		Raw, whether or not chilled or frozen:			
184.60	00	Horsemeat (except meat packed in immediate containers weighing with their contents less than 10 pounds each)	Lb.	Free	Free
184.61	00	Other	Lb.	3% ad val.	10% ad val.
184.65	00	Prepared or preserved	Lb.	6% ad val.	20% ad val.
184.70		Byproducts obtained from the milling of grains, mixed feeds, and mixed-feed ingredients	....	1% ad val.	10% ad val.
	20	*Pet food packaged for retail sale*	Lb.		
	70	*Other*	S. ton		
184.75	00	Other	Cwt.	9% ad val.	20% ad val.

Subpart D. - Feathers, Downs, Bristles, and Hair

Subpart D headnotes:

1. For the purposes of this subpart, the term "treated" means cleaned, disinfected, or treated for preservation.

2. (a) Except as provided in (b) and (c) of this headnote, the importation of the feathers or skin of any bird is hereby prohibited. Such prohibition shall apply to the feathers or skin of any bird --

(i) whether raw or processed;

(ii) whether the whole plumage or skin or any part of either;

(iii) whether or not attached to a whole bird or any part thereof; and

(iv) whether or not forming part of another article.

(b) Headnote 2(a) shall not apply --

(i) in respect of any of the following birds (other than any such bird which, whether or not raised in captivity, is a wild bird): chickens (including hens and roosters), turkeys, guinea fowl, geese, ducks, pigeons, ostriches, rheas, English ring-necked pheasants, and pea fowl;

(ii) to any importation for scientific or educational purposes;

(iii) to the importation of fully-manufactured artificial flies used for fishing;

(iv) to the importation of birds which are classifiable under item 813.20 of schedule 8, and

(v) to the importation of live birds.

(c) Notwithstanding headnote 2(a), there may be entered in each calendar year the following articles of [illegible] bearing feathers:

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty	
				1	2
		(i) for use in the manufacture of artificial flies used for fishing: (A) not more than 5,000 skins of grey jungle fowl (Gallus sonneratii), and (B) not more than 1,000 skins of mandarin duck (Dendronessa galericulata); and (ii) for use in the manufacture of artificial flies used for fishing, or for millinery purposes, not more than 45,000 skins, in the aggregate, of the following species of pheasant: Lady Amherst pheasant (Chrysolophus amherstiae), golden pheasant (Chrysolophus pictus), silver pheasant (Lophura nycthemera), Reeves pheasant (Syrmaticus reevesii), blue-eared pheasant (Crossoptilon auritum), and brown-eared pheasant (Crossoptilon mantchuricum). For the purposes of these quotas, any part of a skin which has been severed shall be considered to be a whole skin. (d) No article specified in headnote 2(c) shall be entered except under a permit issued by the Secretary of the Interior. The Secretary of the Interior shall prescribe such regulations as may be necessary to carry out the purposes and provisions of headnote 2(c) (including regulations providing for equitable allocation among qualified applicants of the import quotas established by such provisions), whenever the Secretary of the Interior finds that the wild supply of any species mentioned in headnote 2(c) is threatened with serious reduction or with extinction, he shall prescribe regulations which provide (to such extent and for such period as he deems necessary to meet such threat) -- (i) in the case of grey jungle fowl or mandarin duck, for the reduction of the applicable import quota, or (ii) in the case of any species of pheasant, for the reduction of the import quota established for pheasants, for the establishment of a subquota for such species of pheasant, or for the elimination of such species from the import quota for pheasants, or any combination thereof. The authority granted to the Secretary of the Interior by the preceding sentence to reduce any import quota shall include authority to eliminate such quota. (e) Any article of a kind the importation of which is prohibited or subjected to a quota by headnotes 2(a), (b), and (c) and which is in the United States shall be presumed for the purposes of seizure and forfeiture to have been imported in violation of law and shall be seized and forfeited under the customs laws unless such presumption is satisfactorily rebutted; except that such presumption shall not apply to articles in actual use for personal adornment or for scientific or educational purposes. Any article so forfeited may (in the discretion of the Secretary of the Treasury and under such regulations as he may prescribe) (1) be placed with any agency of the Federal Government or of any State government, or any society or museum, for exhibition or scientific or educational purposes, or (2) be destroyed.			

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty	
				1	2
		(f) Nothing in these headings shall be construed to repeal the provisions of the Act of March 4, 1913, chapter 145 (thirty-seventh Statutes at large, page 832), of the Act of July 7, 1918 (fortieth Statutes at Large, page 756), or of any other law of the United States, not so repealed, intended for the protection or preservation of birds within the United States. If on investigation by the collector upon seizure, or before trial for forfeiture, or if at such trial in such seizure has been made, it shall be made to appear to the collector, or the prosecuting officer of the Government, as the case may be, that no illegal importation of such feathers has been made, but that the possession, acquisition or purchase of such feathers is or has been made in violation of the provisions of the Act of March 4, 1913, chapter 145 (thirty-seventh Statutes at Large, page 847), or the Act of July 7, 1918 (fortieth Statutes at Large, page 756), or any other law of the United States, not so repealed, intended for the protection or preservation of birds within the United States, it shall be the duty of the collector, or such prosecuting officer, as the case may be, to report the facts to the proper officials of the United States, or State or Territory charged with the duty of enforcing such laws.			
		Feathers and downs, skins or parts of skins, crude, sorted (including feathers simply drawn for convenience in handling or transportation), treated, or both sorted and treated, but not otherwise processed:			
186.10	00	Ostrich	lb	8% ad val	20% ad val.
186.15		Other		10% ad val	20% ad val.
	20	*Feathers*	lb.		
	40	*Downs*	lb.		
186.20	00	Fur, not on the skin, prepared for hatters' use, and carroted furskins	lb	15% ad val.	35% ad val.
186.30	00	Bristles, crude, or processed in any way for use in brushes or other articles	lb	0.75¢ per lb.	3¢ per lb.
186.40	00	Hair, curled, whether or not coated with rubber or plastic, suitable for use in mattresses or paddings	lb	35 ad val.	10% ad val.
		Hair, and fur removed from the skin, not specially provided for, crude, sorted, treated, dyed, or otherwise processed but not made up into articles:			
186.50	00	Human hair	lb	6% ad val.	70% ad val.
186.55		Other:			
		Crude, sorted, treated, or both sorted and treated, but not otherwise processed		Free	Free
	10	*Bovine ear, goat beard, badger, mink, muskrat, skunk tail, squirrel tail, and similar hair*	lb.		
	20	*Horse mane and tail hair*	lb		
	30	*Cattle tail and body hair, and horse body hair*	lb.		
	40	*Goat and kid hair, except beard hair*	lb.		
	50	*Other*	lb.		
186.60	00	Other	lb	13% ad val.	30% ad val.

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
		Subpart E. - Shellac and Other Lacs; Natural Gums, Gum Resins, Resins, and Balsams; Turpentine and Rosin			
		Subpart E headnote:			
		1. The provision for rosin (item 188.50) does not cover bow rosin (see part 5B of schedule 7).			
188.10		Shellac, stick lac, seed lac, button lac, and other lacs	.....	Free	Free
	20	*Seed lac*	*Lb.*		
	40	*Bleached shellac*	*Lb.*		
	60	*Other*	*Lb.*		
		Balsams, natural and not artificially mixed with other substances:			
188.18	00	Copaiba	lb.....	Free	10% ad val.
188.20	00	Styrax	lb.....	4% ad val.	10% ad val.
188.22	00	Tolu	lb.....	Free	10% ad val.
188.24	00	Other, not specially provided for	lb.....	1% ad val.	10% ad val.
		Gums, gum resins, and resins, all the foregoing which are natural, whether crude or subjected to refining processes:			
188.30	00	Amber and amberoid	lb.....	40¢ per lb.	50¢ per lb.
		Chicle:			
188.32	00	Crude or not processed in any manner beyond that required for proper packing	lb.....	Free	Free
188.34	00	Other	lb.....	4¢ per lb.	5¢ per lb.
188.36	00	Gum arabic	lb.....	Free	0.5¢ per lb.
188.38		Other, not specially provided for	.....	Free	Free
	10	*Guar*	*Lb.*		
	20	*Locust bean*	*Lb.*		
	30	*Leche caspi and sorva*	*Lb.*		
	40	*Tragacanth*	*Lb.*		
	50	*Karaya*	*Lb.*		
		Varnish gums and resins:			
	55	*Cashew nut shell liquid*	*Lb.*		
	65	*Other*	*Lb.*		
	70	*Other*	*Lb.*		
188.50		Turpentine, gum and spirits of, and rosin	.....	5% ad val.	5% ad val.
	20	*Spirits of turpentine*	*Gal.*		
	40	*Rosin*	*Lb.*		
	60	*Other*	*Lb.*		
		Subpart F. - Miscellaneous Animal Products			
190.10	00	Albumen, not specially provided for: Blood, dried	lb.....	8¢ per lb.	12½ per lb.
190.15	00	Other	lb.....	Free	Free
190.20	00	Blood, dried, whether or not the fibrinogen or fibrin has been removed	S. ton.	Free	Free
190.25	00	Catgut, whip gut, and oriental gut	X.....	12½% ad val.	40% ad val.
190.30	00	Coral, crude	lb.....	Free	Free
190.35	00	Cuttlefish bone	lb.....	Free	Free
190.40	00	Eggs of fish and insects (except fish roe provided for in part 10 of this schedule)	X.....	Free	Free
190.45	00	Fish, or shellfish, live, imported to be used for purposes other than human consumption	X.....	Free	Free
190.47	00	Fish scales, crude	lb.....	Free	Free

SCHEDULE 1. - ANIMAL AND VEGETABLE PRODUCTS
Part 15. - Other Animal and Vegetable Products

Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
190.50	00	Fish sounds	Lb.	Free	Free
190.55	00	Hoofs and horns, crude	Ton	Free	Free
190.57	00	Hydroids, treated and dyed for ornamental use	Lb.	25% ad val.	40% ad val.
190.58		Intestines, weasands, bladders, tendons, and integuments, not specially provided for, including any of the foregoing prepared for use as sausage casings	Lb.	Free	Free
		Prepared for use as sausage casings:			
	20	*Sheep, lamb, and goat*	X		
	40	*Other*	X		
	60	*Not prepared for use as sausage casings*	X		
190.60	00	Ivory tusks, crude, or cut vertically across the grain only	Lb.	Free	Free
190.65	00	Marine shells, crude	Lb.	Free	Free
190.68	00	Mounted or stuffed animals and parts of animals, the product of taxidermy	X	12½% ad val.	40% ad val.
190.80	00	Skeletons and other preparations of anatomy	No.	Free	Free
		Sponges, marine:			
190.85	00	Grass, velvet, or yellow	Lb.	6¢ ad val.	25% ad val.
190.87	00	Sheepswool	Lb.	9.5% ad val.	47.5% ad val.
190.90	00	Hardhead or reef	Lb.	3¢ ad val.	15% ad val.
190.93	00	Other	Lb.	7.5% ad val.	35% ad val.
190.94		If products of Cuba		6¢ ad val. (a)	
191.10	00	Isinglass	Lb.	Free	Free
191.15	00	Animal substances, crude, not specially provided for	Lb.	5% ad val.	10% ad val.
		Subpart G. - Miscellaneous Vegetable Products			
192.05		Seaweeds, crude, ground, or pulverized		Free	Free
	20	*Carrageen*	Lb.		
	40	*Other*	Lb.		
192.07	00	Carrageenin	Lb.	8% ad val.	20% ad val.
192.10		Evergreen Christmas trees		Free	Free
	20	*Douglas-fir*	No.		
	40	*Fir, except Douglas-fir*	No.		
	60	*Other*	No.		
192.15	00	Citrus juices unfit for beverage purposes	Lb.	1.25¢ per lb.	5¢ per lb.
192.20	00	Cut flowers, fresh; bouquets, wreaths, sprays, or similar articles made from such flowers or other fresh plant parts	X	10% ad val.	40% ad val.
192.22	00	Guar seeds	Lb.	Free	Free
		Hops, hop extract, and lupulin:			
192.25	00	Hops	Lb.	9¢ per lb.	24¢ per lb.
192.30	00	Hop extract	Lb.	$1.08 per lb.	$2.40 per lb.
192.35	00	Lupulin	Lb.	54¢ per lb.	$1.50 per lb.
		Licorice:			
192.40	00	Root	Lb.	Free	Free
192.45	00	Extract	Lb.	10% ad val.	20% ad val.
192.50	00	Peat moss	Ton	15¢ per ton	50¢ per ton

(a) Suspended. See general headnote 4(b).

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2
		Straws and other fibrous vegetable substances not specially provided for, crude or processed:			
192.55	00	Broom corn	S. ton.	$10 per short ton	$20 per short ton
192.60	00	Flax straw	Ton	45¢ per ton	$3 per ton
		Istle:			
192.65	00	Crude	Ton	Free	Free
192.70	00	Processed	Lb	20% ad val. 1/	20% ad val. 1/
192.75	00	Rice straw and rice fiber	S. ton.	$5 per short ton	$10 per short ton
		Other:			
192.80	00	Crude	Ton	Free	Free
192.85	00	Processed	Lb	8% ad val.	20% ad val.
192.90	00	Teasels	Lb	9% ad val.	25% ad val.
193.10	00	Tonka beans	Lb	10¢ per lb.	25¢ per lb.
193.15	00	Vanilla beans	Lb	4¢ per lb.	30¢ per lb.
193.20	00	Wafers, not edible	Lb	Free	Free
193.25	00	Vegetable substances, crude, not specially provided for	X	Free	Free

1/ Duty temporarily suspended by legislation. See Appendix to Tariff Schedules.

APPENDIX A

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

STAGED RATES AND HISTORICAL NOTES

Notes p. 1
Schedule 1,
Part 15

Staged Rates

Modifications of column 1 rates of duty by Pres. Proc. 3822 (Kennedy Round), Dec. 16, 1967, 32 F.R. 19002:

TSUS item	Prior rate	Rate of duty, effective with respect to articles entered on and after January 1 --				
		1968	1969	1970	1971	1972
182.05	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
182.10	20% ad val.	18% ad val.	16% ad val.	14% ad val.	12% ad val.	10% ad val.
182.15	28% ad val.	25% ad val.	22% ad val.	19.5% ad val.	16.5% ad val.	14% ad val.
182.20	6.5% ad val.	5.5% ad val.	5% ad val.	4.5% ad val.	3.5% ad val.	3% ad val.
182.30	5% ad val.	4% ad val.	4% ad val.	3% ad val.	3% ad val.	2.5% ad val.
182.32	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
182.35	1¢ per lb.	0.9¢ per lb.	0.8¢ per lb.	0.7¢ per lb.	0.6¢ per lb.	0.5¢ per lb.
182.36	1.5¢ per lb.	1.3¢ per lb.	1.2¢ per lb.	1¢ per lb.	0.9¢ per lb.	0.7¢ per lb.
182.40	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
182.45	12% ad val.	10.5% ad val.	9.5% ad val.	8% ad val.	7% ad val.	6% ad val.
182.46	15% ad val.	13% ad val.	12% ad val.	10% ad val.	9% ad val.	7.5% ad val.
182.50	6¢ per lb. (including wt. of immediate container)	5.4¢ per lb. (including wt. of immediate container)	4.5¢ per lb. (including wt. of immediate container)	4¢ per lb. (including wt. of immediate container)	3.5¢ per lb. (including wt. of immediate container)	3¢ per lb. (including wt. of immediate container)
182.52	14% ad val.	12.5% ad val.	11% ad val.	9.5% ad val.	8% ad val.	7% ad val.
182.55	1.2¢ per proof gal.	0.9¢ per proof gal.	0.7¢ per proof gal.	0.4¢ per proof gal.	0.2¢ per proof gal.	Free
182.58	4¢ per proof gal.	3.5¢ per proof gal.	3.5¢ per proof gal.	3¢ per proof gal.	3¢ per proof gal.	3¢ per proof gal.
182.70	5% ad val.	4% ad val.	4% ad val.	3% ad val.	3% ad val.	2.5% ad val.
182.90	12.5% ad val.	11% ad val.	10% ad val.	8.5% ad val.	7% ad val.	6% ad val.
182.95	20% ad val.	18% ad val.	16% ad val.	14% ad val.	12% ad val.	10% ad val.
184.10	2.5% ad val.	2% ad val.	1% ad val.	1% ad val.	Free	Free
184.20	$1.70 per short ton	$1.56 per short ton	$1.02 per short ton	68¢ per short ton	34¢ per short ton	Free
184.25	$1.10 per short ton	88¢ per short ton	66¢ per short ton	44¢ per short ton	22¢ per short ton	Free
184.30	60¢ per short ton	48¢ per short ton	36¢ per short ton	24¢ per short ton	12¢ per short ton	Free
184.35	50¢ per short ton	40¢ per short ton	30¢ per short ton	20¢ per short ton	10¢ per short ton	Free
184.40	2.5¢ per 100 lbs.	2¢ per 100 lbs.	1¢ per 100 lbs.	1¢ per 100 lbs.	Free	Free
184.45	0.5% ad val.	Free	Free	Free	Free	Free
184.47	2.5% ad val.	2% ad val.	1% ad val.	1% ad val.	Free	Free
184.50	0.25¢ per lb.	0.22¢ per lb.	0.2¢ per lb.	0.17¢ per lb.	0.15¢ per lb.	0.12¢ per lb.
184.54	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
184.61	5% ad val.	4% ad val.	3% ad val.	2% ad val.	1% ad val.	Free
184.65	8% ad val.	7% ad val.	6% ad val.	5.5% ad val.	4.5% ad val.	4% ad val.
184.70	2.5% ad val.	2% ad val.	1% ad val.	1% ad val.	Free	Free
184.75	10% ad val.	9% ad val.	9% ad val.	8% ad val.	8% ad val.	7.5% ad val.
186.10	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
186.15	20% ad val.	19% ad val.	18% ad val.	17% ad val.	16% ad val.	15% ad val.
186.30	1¢ per lb.	0.75¢ per lb.	0.75¢ per lb.	0.75¢ per lb.	0.75¢ per lb.	0.75¢ per lb.
186.40	4% ad val.	3.5% ad val.	3% ad val.	2.5% ad val.	2% ad val.	2% ad val.
186.50	8% ad val.	7% ad val.	6% ad val.	5.5% ad val.	4.5% ad val.	4% ad val.
186.60	15% ad val.	14% ad val.	13% ad val.	12.5% ad val.	11.5% ad val.	11% ad val.
188.18	10% ad val.	Free	Free	Free	Free	Free
188.20	5% ad val.	4.5% ad val.	4% ad val.	4% ad val.	3.7% ad val.	3.7% ad val.
188.22	10% ad val.	Free	Free	Free	Free	Free
188.24	2.5% ad val.	2% ad val.	1% ad val.	1% ad val.	Free	Free
188.30	50¢ per lb.	45¢ per lb.	40¢ per lb.	35¢ per lb.	30¢ per lb.	25¢ per lb.
188.34	5¢ per lb.	4.5¢ per lb.	4¢ per lb.	3.5¢ per lb.	3¢ per lb.	2.5¢ per lb.
188.36	0.5¢ per lb.	Free	Free	Free	Free	Free
190.10	10¢ per lb.	9¢ per lb.	8¢ per lb.	7¢ per lb.	6¢ per lb.	5¢ per lb.
190.27	3% ad val.	3% ad val.	3% ad val.	3% ad val.	3% ad val.	2.5% ad val.
190.60	15% ad val.	13% ad val.	12% ad val.	10% ad val.	9% ad val.	7.5% ad val.
190.65	7.5% ad val.	6.5% ad val.	6% ad val.	5% ad val.	4% ad val.	3.5% ad val.
190.82	12% ad val.	10.5% ad val.	9.5% ad val.	8% ad val.	7% ad val.	6% ad val.

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1969)

STAGED RATES AND HISTORICAL NOTES

Notes p. 2
Schedule 1,
Part 15

Staged Rates

Modifications of column 1 rates of duty by Pres. Proc. 3822 (Kennedy Round), Dec. 16, 1967, 32 F.R. 19002 (con.):

TSUS item	Prior rate	Rate of duty, effective with respect to articles entered on and after January 1 --				
		1968	1969	1970	1971	1972
190.90	4% ad val.	3.5% ad val.	3% ad val.	2.5% ad val.	2% ad val.	2% ad val.
191.15	5% ad val.	4% ad val.	4% ad val.	3% ad val.	3% ad val.	2.5% ad val.
192.07	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
192.25	10¢ per lb.	9¢ per lb.	9¢ per lb.	8¢ per lb.	8¢ per lb.	7.5¢ per lb.
192.30	$1.20 per lb.	$1.14 per lb.	$1.08 per lb.	$1.02 per lb.	96¢ per lb.	90¢ per lb.
192.35	60¢ per lb.	57¢ per lb.	54¢ per lb.	51¢ per lb.	48¢ per lb.	45¢ per lb.
192.45	12.5% ad val.	11% ad val.	10% ad val.	8.5% ad val.	7% ad val.	6% ad val.
192.50	25¢ per ton	20¢ per ton	15¢ per ton	10¢ per ton	5¢ per ton	Free
192.60	75¢ per ton	60¢ per ton	45¢ per ton	30¢ per ton	15¢ per ton	Free
192.85	10% ad val.	9% ad val.	8% ad val.	7% ad val.	6% ad val.	5% ad val.
192.90	10% ad val.	9% ad val.	9% ad val.	8% ad val.	8% ad val.	7.5% ad val.
193.10	12.5¢ per lb.	11¢ per lb.	10¢ per lb.	8.5¢ per lb.	7.5¢ per lb.	6¢ per lb.
193.15	7.5¢ per lb.	6¢ per lb.	4¢ per lb.	3¢ per lb.	1¢ per lb.	Free

Other Amendments and Modifications

PROVISION

Subpt B--Language ", but such term does not include any substance
hdnte 3 provided for in schedule 4 (except part 2E thereof) or schedule 5 (except part 1K thereof)" added. Pub. L. 89-241, Secs. 2(a), 6(a), Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

Headnote 3 modified by deleting "182.91, and 182.92" and inserting "182.92, 182.93, and 182.95" in lieu thereof. Pres. Proc. 3822 (Kennedy Round), Dec. 16, 1967, 32 F.R. 19002, effective date Jan. 1, 1968.

182.70--Item 182.70 added. Pub. L. 89-241, Secs. 2(a), 7, Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

PROVISION

182.91--Items 182.91 (column 1 and 2 rate--20% ad val.) and
182.92 182.92 (Cuba--16% ad val.) deleted and new items
182.93 182.92, 182.93, and 182.95 and heading immediately
182.95 preceding item 182.92 added in lieu thereof. Pres. Proc. 3822 (Kennedy Round), Dec. 16, 1967, 32 F.R. 19002, effective date Jan. 1, 1968.

Subpt C--Language ", but such term does not include any
hdnte product provided for in schedule 4 (except part
1(a) 2E thereof) or schedule 5 (except part 1K thereof)" added. Pub. L. 89-241, Secs. 2(a), 6(b), Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

192.05--"Carrageen" deleted from article description and "Seaweeds" inserted in lieu thereof. Pub. L. 89-241, Secs. 2(a), 8, Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

192.20--Article description amended. Pub. L. 89-241, Secs. 2(a), 9, Oct. 7, 1965, 79 Stat. 933, 934, effective date Dec. 7, 1965.

Statistical Notes

PROVISION	Effective date
182.25--	
40--Disc.(transferred to 182.2550 & 60).....	*Sept.1, 1964*
50--Estab.(transferred from 182.2540pt).....	*do*
60--Estab.	*do*
182.70--See Other Amendments and Modifications	
00--Estab.(transferred from 130.5500pt).....	*Dec. 7, 1965*

PROVISION	Effective date
182.91--See Other Amendments and Modifications	
20--Disc.(transferred to 182.9200).....	*Jan. 1, 1968*
25--Estab.(transferred from 182.9140pt).....	*Jan. 1, 1964*
Disc.(transferred to 182.9520).....	*Jan. 1, 1968*
30--Estab.(transferred from 182.9140pt).....	*Jan. 1, 1964*
Disc.(transferred to 182.9540).....	*Jan. 1, 1968*
40--Disc.(transferred to 182.9125 & 30).....	*Jan. 1, 1964*

Statistical Notes--(con.)

PROVISION	Effective date
182.92--See Other Amendments and Modifications	
00--Estab.(transferred from 182.9120).....	*Jan. 1, 1968*
182.95--See Other Amendments and Modifications	
20--Estab.(transferred from 182.9125).....	*Jan. 1, 1968*
40--Estab.(transferred from 182.9130).....	*do*
184.62--	
20--Disc.(transferred to 184.6220).....	*Jan. 1, 1966*
60--Disc. do	*do*
70--Estab.(transferred from 184.6222 & 60)....	*do*
184.70--	
40--Disc.(transferred to 184.7070).....	*Jan. 1, 1966*
60--Disc. do	*do*
70--Estab.(transferred from 184.7040 & 60)....	*do*
184.75--See Other Amendments and Modifications	
00--Amino acids used as animal feeds and ingredients therefor transferred to 425.0400.....	*Dec. 7, 1965*
188.38--	
55--Estab.(transferred from 188.3860pt).....	*Sept.1, 1964*
60--Disc.(transferred to 188.3855 & 65).....	*do*
65--Estab.(transferred from 188.3860pt).....	*do*
188.50--	
00--Disc.(transferred to 188.5020, 40 & 60)...	*Jan. 1, 1964*
20--Estab.(transferred from 188.5000pt).....	*do*
40--Estab. do	*do*
60--Estab. do	*do*
192.05--See Other Amendments and Modifications	
00--Disc.(transferred to 192.0520).....	*Dec. 7, 1965*
20--Estab.(transferred from 192.0500).....	*do*
40--Estab.(transferred from 184.7500pt, 193.2500pt & 480.8080pt).....	*do*
192.20--See Other Amendments and Modifications	
00--Florist articles made of fresh plant parts transferred from 799.0000.....	*Dec. 7, 1965*
192.70--See Other Amendments and Modifications (item 903.90)	

APPENDIX A

APPENDIX TO THE TARIFF SCHEDULES

526

Appendix Headnotes:

1. The provisions of this Appendix relate to legislation and to executive and administrative actions pursuant to duly constituted authority, under which --
(a) one or more of the provisions in schedules 1 through 8 are temporarily amended or modified, or
(b) additional duties or other import restrictions are imposed by, or pursuant to, collateral legislation.

2. Unless the context requires otherwise, the general headnotes and rules of interpretation and the respective schedule, part, and subpart headnotes in schedules 1 through 8 apply to the provisions of this Appendix.

Appendix statistical headnotes:

1. For statistical reporting of merchandise provided for herein --
(a) unless more specific instructions appear in the parts or subparts of this appendix, report the 5-digit item number (or 7-digit number, if any) found in the appendix in addition to the 7-digit number appearing in schedules 1-7 which would be applicable but for the provisions of this appendix; and
(b) the quantities reported should be in the units provided in schedules 1-7.

2. For those items herein for which no rate of duty appears (i.e., those items for which an absolute quota is prescribed), report the 5-digit item number herein followed by the appropriate 7-digit reporting number from schedules 1-7. The quantities reported should be in the units provided in schedules 1-7.

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2	Effective Period
		PART 1. - TEMPORARY LEGISLATION				
		Subpart A. - Temporary Provisions for Additional Duties				
		Subpart A headnotes:				
		1. The duties provided for in this subpart are cumulative duties which apply in addition to the duties, if any, otherwise imposed on the articles involved. The duties provided for in this subpart apply only with respect to articles entered during the period specified in the last column.				
		2. Sections 336 and 350 of this Act (the so-called flexible tariff and trade-agreements provisions, respectively) shall not apply with respect to the duty provided for in item 901.00.				
		3. With respect to any articles upon which the duty imposed under item 901.00 has been paid and which, on the date of termination of the tax provided for in section 4501, I.R.C., are held by the importer and intended for sale or other disposition, there shall be refunded (without interest) to such importer an amount equal to the duty paid on such articles under item 901.00, if claim for such refund is filed with the Secretary or his delegate within 90 days after the date of termination of the tax.				
		Subpart A statistical headnote:				
		1. For statistical reporting purposes in this subpart (item 901.00) -- *(a) The 7-digit number found herein should follow the 7-digit reporting number found in schedules 1-7 for the imported article (see subpart A headnote 1).* *(b) The quantity required in this subpart is the total sugars content.* *(c) The value for the imported article should be reported only in connection with the 7-digit reporting number found in schedules 1-7.*				
901.00	1/	Sugars, sirups, and molasses provided for in items 155.20 to 155.31, inclusive, of part 10A of schedule 1, if not to be further refined or otherwise improved in quality, and articles of sugars, sirups, and molasses of the kinds described in such items, all the foregoing (except sugars, sirups, molasses, or articles to be used as livestock feed, or in the production of livestock feed, or for the distillation of alcohol).....	.....	The same as the tax imposed under sec. 4501, I.R.C.2/	The same as the tax imposed under sec. 4501, I.R.C.2/	For such time as the tax imposed under sec. 4501, I.R.C., is in effect 3/
	20	*Sugars, sirups, and molasses provided for in item 155.20*.....	*Lb.* 1/			
	40	*Sugars, sirups, and molasses provided for in item 155.30*.....	*Lb.* 1/			
	60	*Other*.....	*Lb.* 1/			
		1/ *See Subpart A statistical headnote 1.* 2/ The tax rate is 0.53 cent per pound of total sugars. 3/ The tax terminates June 30, 1972.				

Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2	Effective Period
		Subpart B. - Temporary Provisions Amending the Tariff Schedules				
		Subpart B headnotes:				
		1. Any article described in the provisions of this subpart, if entered during the period specified in the last column, is subject to duty at the rate set forth herein in lieu of the rate provided therefor in schedules 1 to 8, inclusive.				
		2. Articles exempted under item 915.25 from the payment of duty shall be exempt also from the payment of any internal revenue tax imposed upon or by reason of importation.				
		3. (a) Items 911.10, 911.11, 911.13, 911.14, 911.15, and 911.16 shall not apply when the market price of copper is under 36 cents per pound. (b) For purposes of subparagraph (a), the market price of copper has the meaning assigned to it by headnote 5(b) of the headnotes of schedule 6, part 2, subpart C. (c) For purposes of subparagraph (a), the market price of copper shall be considered to be under 36 cents per pound only on and after the 20th day after the date of a report by the United States Tariff Commission to the Secretary of the Treasury that it has determined that the market price has been under 36 cents per pound for one calendar month. After any such report, the market price shall be considered as not being under 36 cents per pound only on and after the 20th day after the date of a report by the Commission to the Secretary that it has determined that the market price has been 36 cents or more per pound for one calendar month. (d) Determinations by the Commission under this headnote shall be made in the manner prescribed by headnote 5(c) of schedule 6, part 2, subpart C.				
		Subpart B statistical headnotes:				
		1. For the purposes of statistical reporting of any item for which a unit of quantity (including X) appears in this subpart no additional reporting number (from schedules 1-7) is to be furnished.				
		2. No statistical reporting information for item 915.25 is required.				
903.20	1/	Chicory roots (provided for in part 11A, schedule 1): Crude (item 160.30)	1/	Free	Free	On or before 6/30/69
903.21	1/	Ground or otherwise prepared (item 160.35)	1/	2¢ per lb.	7¢ per lb.	On or before 6/30/69

1/ See Appendix statistical headnote 1.

Item	Stat. Suf-fix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty 2	Effective Period
903.90	1/	Istle, processed (provided for in item 192.70, part 15G, schedule 1)	1/	Free	Free	On or before 9/5/72 ③
		Yarns, chiefly of noncontinuous silk fibers (provided for in part 1D, schedule 3):				
308.30	1/	Singles, not bleached and not colored, measuring over 50,400 yards per pound (item 308.40)	1/	Free	Free	On or before 11/7/71 ②
308.41	1/	Plied, not bleached and not colored, measuring over 29,400 yards per pound (item 308.50 and item 308.51)	1/	Free	Free	On or before 11/7/71 ②
907.15	00	Aluminum oxide (alumina) (provided for in item 417.11, part 2G, schedule 4) when imported for use in producing aluminum	Ton	Free	Free	On or before 7/15/71
907.30	00	Heptanoic acid (provided for in item 429.95, part 2D, schedule 4)	lb	Free	Free	On or before 12/31/70 ②
909.25	00	Electrodes (provided for in item 517.61, part 1H, schedule 5) when imported for use in producing aluminum	c. con.	Free	Free	On or before 12/31/70 ②
909.30	1/	Bauxite, calcined (provided for in item 541.17, part 1J, schedule 5)	1/	Free	Free	On or before 7/15/71
911.05	1/	Manganese ore (provided for in item 601.06, part 1, schedule 6)	1/	Free	Free	On or before 7/15/71
911.07		Manganese ore, including ferruginous manganese ore and manganiferous iron ore, all the foregoing containing over 10 percent by weight of manganese (provided for in item 601.77, part 1, schedule 6)		Free	1¢ per lb. on manganese content	On or before 6/30/70
	20	Containing under 35% by weight of manganese	lb.			
		manganese content	lb.			
	40	Containing 35% or over, but less than 47% by weight of manganese	lb.			
		manganese content	lb.			
	60	Containing 47% or more by weight of manganese	lb.			
		manganese content	lb.			

1/ See Appendix statistical headnote 1.

Amendments and Modifications

PROVISION

901.00--Tax termination date extended from June 30, 1967 to June 30, 1972. Pub. L. 89-331, Secs. 13, 14, Nov. 8, 1965, 79 Stat. 1280, 1281.

Subpt B--Reference to item 915.25 added. Pub. L. 89-368, Secs.
hdnte 2 303(b), (c), March 15, 1966, 80 Stat. 71, effective date March 16, 1966.

Headnote 2 deleted. Pub. L. 89-436, Secs. 1(b), (c), May 31, 1966, 80 Stat. 189, effective date July 1, 1966.

New headnote 2 added. Pub. L. 90-240, Secs. 1(b), 2, Jan. 2, 1968, 81 Stat. 776, effective date Jan. 1, 1968.

Subpt B--Headnote 3 added. Pub. L. 90-615, Secs. 3(b), (c),
hdnte 3 Oct. 21, 1968, 82 Stat. 1211, effective date July 1, 1968.

903.20--Effective period extended from June 30, 1966 to June 30,
903.21 1969. Pub. L. 89-439, May 31, 1966, 80 Stat. 191.

❷ Items 903.20 and 903.21 (chicory roots) and heading immediately preceding item 903.20 deleted. Pub. L. 91-41, Secs. 1, 2, July 9, 1969, 83 Stat. 44, 45, effective date July 1, 1969.

903.30--Items 903.30, 903.31, and 903.32 (Copra); item 903.40
903.31 (Palm-nut kernels and palm nuts); items 903.43, 903.44,
903.32 903.45, 903.46, 903.47, 903.48, and 903.49 (Coconut oil);
903.40 items 903.60 and 903.61 (Palm-kernel oil); item 903.65
903.43 (Palm oil); and headings immediately preceding such items
903.44 deleted. Pub. L. 89-388, Secs. 1(g), 2, April 13, 1966,
903.45 80 Stat. 110, effective date April 13, 1966.
903.46
903.47
903.48
903.49
903.60
903.61
903.65

903.90--Effective period extended from Sept. 5, 1966 to Sept. 5, 1969. Pub. L. 89-575, Secs. 1(a), (b), Sept. 13, 1966, 80 Stat. 771, effective date Sept. 6, 1966.

❸ Effective period extended from Sept. 5, 1969 to Sept. 5, 1972. Pub. L. 91-65, Aug. 25, 1969, 83 Stat. 105.

904.40--Item 904.40 (Insulation of compressed cork) deleted. Pub. L. 89-431, Secs. 1(b), 2, May 26, 1966, 80 Stat. 168, 169, effective date May 27, 1966.

905.30--Effective period extended from Nov. 7, 1965 to Nov. 7, 1968.
905.31 Pub. L. 89-229, Sec. 1, Oct. 1, 1965, 79 Stat. 901.

❷ Effective period expired on Nov. 8, 1968.

❸ Effective period renewed as of June 14, 1969. Pub. L. 91-28, Secs. 1, 2(a), June 13, 1969, 83 Stat. 36.

907.25--Effective period extended from July 15, 1964 to July 15, 1966. Pub. L. 88-362, July 7, 1964, 78 Stat. 298.

Effective period extended from July 16, 1966 to July 15, 1968. Pub. L. 89-440, May 31, 1966, 80 Stat. 192.

Effective period extended from July 15, 1968 to July 15, 1971. Pub. L. 90-615, Secs. 1(a), (b), Oct. 21, 1968, 82 Stat. 1210, effective date July 16, 1968.

907.30--Effective period extended from Aug. 8, 1966 to Aug. 8, 1969. Pub. L. 89-432, May 31, 1966, 80 Stat. 169.

❸ Effective period extended from Aug. 8, 1969 to Dec. 31, 1970. Pub. L. 91-36, Sec. 1, June 30, 1969, 83 Stat. 42.

907.70--Items 907.70, 907.71, 907.72, 907.73, 907.74, and 907.75
907.71 (Fatty substances derived from coconut, palm-kernel, or
907.72 palm oil) and headings immediately preceding items 907.70
907.73 and 907.73 deleted. Pub. L. 89-388, Secs. 1(g), 2,
907.74 April 13, 1966, 80 Stat. 110, effective date April 13,
907.75 1966.

PROVISION

907.77--Column 1 rate of duty of 17.5% ad val. reduced to 14% ad val. Pub. L. 89-241, Secs. 2(a), 86, Oct. 7, 1965, 79 Stat. 933, 950, effective date Dec. 7, 1965.

Item 907.77 (Coconut, palm-kernel, and palm oils) deleted. Pub. L. 89-388, Secs. 1(g), 2, April 13, 1966, 80 Stat. 110, effective date April 13, 1966.

907.80--Effective period extended from Sept. 30, 1966 to Sept. 30, 1969. Pub. L. 89-573, Sept. 13, 1966, 80 Stat. 765.

❸ Item 907.80 (certain dyeing and tanning products) deleted upon expiration of effective period, effective date Oct. 1, 1969.

907.85--Items 907.85, 907.86, 907.87, and 907.88 (Fatty
907.86 substances derived from coconut, palm-kernel, or
907.87 palm oil) and heading preceding item 907.85 deleted.
907.88 Pub. L. 89-388, Secs. 1(g), 2, April 13, 1966, 80 Stat. 110, effective date April 13, 1966.

909.20--Effective period extended from June 30, 1964 to June 30, 1966. Pub. L. 88-329, June 29, 1964, 78 Stat. 225, 226.

Item 909.20 deleted. Pub. L. 89-433, Secs. 1(b), (c), May 31, 1966, 80 Stat. 169, effective date July 1, 1966.

909.25--Item 909.25 added. Pub. L. 89-241, Secs. 87(a), (b), Oct. 7, 1965, 79 Stat. 950, effective date Oct. 8, 1965.

Effective period extended from July 15, 1966 to July 15, 1968. Pub. L. 89-434, May 31, 1966, 80 Stat. 169.

Effective period extended from July 16, 1968 to July 15, 1969. Pub. L. 90-571, Secs. 1, 2, Oct. 12, 1968, 82 Stat. 1004, effective date July 16, 1968.

❷ Effective period extended from July 15, 1969 to Dec. 31, 1970. Pub. L. 91-26, June 13, 1969, 83 Stat. 36.

909.30--Effective period extended from July 15, 1964 to
911.05 July 15, 1966. Pub. L. 88-362, July 7, 1964, 78 Stat. 298.

Effective period extended from July 15, 1966 to July 16, 1968. Pub. L. 89-440, May 31, 1966, 80 Stat. 192.

Effective period extended from July 15, 1968 to July 16, 1971. Pub. L. 90-615, Secs. 1(a), (b), Oct. 21, 1968, 82 Stat. 1210, effective date July 16, 1968.

911.07--Item 911.07 added. Pub. L. 88-338, Secs. 1(a), (b), June 30, 1964, 78 Stat. 232, effective date July 1, 1964.

Effective period extended from June 30, 1967 to June 30, 1970. Pub. L. 90-49, Secs. 1(a), (b), July 7, 1967, 81 Stat. 119, effective date July 1, 1967.

911.10--Effective period for items 911.10, 911.11, and 911.12
911.11 extended from June 30, 1964 to June 30, 1965. Pub.
911.12 L. 88-324, June 29, 1964, 78 Stat. 222.

Effective period for items 911.10, 911.11, and 911.12 extended from June 30, 1965 to June 30, 1967. Pub. L. 89-61, June 30, 1965, 79 Stat. 207.

Item	Stat. Suf-fix	Articles	Units of Quantity	Quota Quantity
		PART 3. - ADDITIONAL IMPORT RESTRICTIONS PROCLAIMED PURSUANT TO SECTION 22 OF THE AGRICULTURAL ADJUSTMENT ACT, AS AMENDED Part 3 headnotes: 1. This part covers the provisions proclaimed by the President pursuant to section 22 of the Agricultural Adjustment Act, as amended (7 USC 624), imposing import fees, herein referred to as duties, and quantitative limitations on articles imported into the United States. The duties provided for in this part are cumulative duties which apply in addition to the duties, if any, otherwise imposed on the articles involved. Unless otherwise stated, the duties and quantitative limitations provided for in this part apply until suspended or terminated. 2. Exclusions.--The import restrictions provided for in this part do not apply with respect to -- (a) articles imported by or for the account of any agency of the United States; (b) commercial samples of cotton or cotton waste of any origin in uncompressed packages each weighing not more than 50 pounds gross weight and articles (except cotton and cotton waste) with an aggregate value not over $10 in any shipment, if imported as samples for taking orders for the personal use of the importer, or for research; (c) articles entered for exhibition, display, or sampling at a Trade Fair or for research, but only if written approval of the Secretary of Agriculture or his designated representative is presented at the time of entry or bond is furnished in a form prescribed by the Commissioner of Customs in an amount equal to the value of the merchandise as set forth in the entry plus the estimated duty as determined at the time of entry, conditioned upon the production of such written approval within six months from the date of entry; (d) certified or registered seed wheat for use for seeding and crop-improvement purposes, in bags tagged and sealed by an officially recognized seed-certifying agency of the country of production, if -- (i) the individual shipment amounts to 100 bushels (at 60 pounds each for wheat) or less, or (ii) the individual shipment exceeds 100 bushels and the written approval of the Secretary of Agriculture or his designated representative is presented at the time of entry, or bond in a form prescribed by the Commissioner of Customs in an amount equal to the value of the merchandise as set forth in the entry, plus the estimated duty as determined at the time of entry, conditioned upon production of such written approval within six months from the date of entry;		

Item	Stat. Suf-fix	Articles	Units of Quantity	Quota Quantity
		(b) Cotton Waste. For the purposes of item 955.05, the minimum quota in column (A) is that part of the total quota in column (C) which must be reserved for comber waste made from cotton 1-3/16 inches or more in staple length, and the unreserved quota in column (B) is that part of the total quota available for any quota-type waste, including comber waste made from cotton 1-3/16 inches or more in staple length.		
		Whenever, in any 12-month period beginning January 1 in any year, the respective aggregate quantity specified below for one of the numbered classes of articles has been entered, no article in such class may be entered during the remainder of such period:		
949.80	1/	Milk and cream, fluid or frozen, fresh or sour, containing over 3.5 percent but not over 45 percent by weight of butterfat:		
		For the 12-month period ending December 31, 1967:		
		New Zealand	1/	The quantity entered on or before June 30, 1967, plus 750,000 gallons
		Other	1/	None
		For each subsequent year:		
		New Zealand	1/	1,500,000 gallons
		Other	1/	None
949.90	1/	Milk and cream, condensed or evaporated, classifiable for tariff purposes under items 119.30, 119.35, and 119.40:		
		For the 12-month period ending December 31, 1968		The quantity entered on or before the date of this amendment, 2/ plus the following quantities:

		Evaporated		Condensed	
		In air-tight containers (in pounds)	Other (in pounds)	In air-tight containers (in pounds)	Other (in pounds)
Netherlands	1/	604,500	None	169,000	None
Canada	1/	35,000	None	1,096,000	2,500
Denmark	1/	5,500	None	667,000	None
West Germany	1/	11,000	None	None	None
Australia	1/	None	None	101,000	None
Other	1/	None	None	4,000	None
For each subsequent 12-month period		The following quantities:			
Netherlands	1/	1,209,000	None	338,000	None
Canada	1/	70,000	None	2,192,000	5,000
Denmark	1/	11,000	None	1,334,000	None
West Germany	1/	22,000	None	None	None
Australia	1/	None	None	202,000	None
Other	1/	None	None	8,000	None

1/ See Appendix statistical headnote 2.
2/ June 10, 1966.

Item	Stat. Suf-fix	Articles	Units of Quantity	Quota Quantity	
		Whenever, in any 12-month period, etc. (con.):			
		Articles containing over 5.5 percent by weight of butterfat, the butterfat of which is commercially extractable, or which are capable of being used for any edible purpose (except articles provided for in subparts A, B, C or item 118.30, of part 4, schedule 1, and except articles which are not suitable for use as ingredients in the commercial production of edible articles):			
950.22	1/	Over 45 percent by weight of butterfat........	1/	None	
950.23	1/	Over 5.5 percent but not over 45 percent by weight of butterfat and classifiable for tariff purposes under item 182.92 or 182.95:			
		Australia..............................	1/	2,240,000 pounds	
		Belgium and Denmark (aggregate)..........	1/	340,000 pounds	
		Other..................................	1/	None	
950.60	1/	Whenever, in any 12-month period beginning May 29 in any year, the respective quantity specified below of wheat fit for human consumption (item 130.70, part 7A, schedule 1) or of milled wheat products fit for human consumption (item 131.40, part 7C, schedule 1) the product of a specified foreign country or area has been entered, no such wheat or milled wheat products, respectively, the product of such country or area may be entered during the remainder of such period:		Wheat (in 60-pound bushels)	Milled wheat products (in pounds)
		Canada..............................	1/	795,000	3,815,000
		China..............................	1/	None	24,000
		Hungary..............................	1/	None	13,000
		Hong Kong..............................	1/	None	13,000
		Japan..............................	1/	None	8,000
		United Kingdom..............................	1/	100	75,000
		Australia..............................	1/	None	1,000
		Germany..............................	1/	100	5,000
		Syria..............................	1/	100	5,000
		New Zealand..............................	1/	None	1,000
		Chile..............................	1/	None	1,000
		Netherlands..............................	1/	100	1,000
		Argentina..............................	1/	2,000	14,000
		Italy..............................	1/	100	2,000
		Cuba..............................	1/	None	12,000
		France..............................	1/	1,000	1,000
		Greece..............................	1/	None	1,000
		Mexico..............................	1/	100	1,000
		Panama..............................	1/	None	1,000
		Uruguay..............................	1/	None	1,000
		Poland and Danzig..............................	1/	None	1,000
		Sweden..............................	1/	None	1,000
		Yugoslavia..............................	1/	None	1,000
		Norway..............................	1/	None	1,000
		Canary Islands..............................	1/	None	1,000
		Rumania..............................	1/	1,000	None
		Guatemala..............................	1/	100	None
		Brazil..............................	1/	100	None
		Union of Soviet Socialist Republics..............................	1/	100	None
		Belgium..............................	1/	100	None
		Other foreign countries or areas..............................	1/	None	None
951.00	1/	Whenever, in any 12-month period beginning August 1 in any year, the aggregate quantity specified below of peanuts, shelled or not shelled, blanched, or otherwise prepared or preserved (except peanut butter) provided for in items 145.20, 145.21, and 145.40, part 9A, schedule 1, has been entered, no such products may be entered during the remainder of such period..............................	1/	Quota Quantity: 1,709,000 pounds: *Provided*, That peanuts in the shell shall be charged against this quota on the basis of 75 pounds for each 100 pounds of peanuts in the shell.	

1/ See Appendix statistical headnote 2.

Amendments and Modifications

PROVISION

Part 2--Language "of for the personal use of the importer" deleted
headnote and language "for the personal use of the importer, or for
2(b) research" inserted in lieu thereof. Pub. L. 89-241,
Secs. 2(a), 5B, Oct. 7, 1965, 79 Stat. 933, 950, effective
date Dec. 7, 1965.

Part 2--Language "articles not exceeding 100 pounds in aggregate
headnote weight in any shipment, if entered for exhibition, display,
2(a) or sampling at a Trade Fair, or for research, and if"
deleted and language "articles entered for exhibition,
display, or sampling at a Trade Fair or for research, but
only if" inserted in lieu thereof. Pub. L. 89-241, Secs.
2(a), 5B, Oct. 7, 1965, 79 Stat. 933, 950, effective date
Dec. 7, 1965.

Part 3--Language "seed rye or" preceding "seed wheat" and language
headnote "of 56 pounds each for rye and" preceding "of 60 pounds
3(f) each for wheat" deleted. Pres. Proc. 3597, July 7, 1964,
3 CFR, 1964 Supp., P. 41, effective date July 7, 1964.

Part 3--Headnote 3(a) modified. Pres. Proc. 3562, Nov. 26, 1963,
headnote 3 CFR, 1959-1963 Comp., P. 315, effective date Nov. 26,
3(a) 1963.
Headnote 3(a) modified. Pres. Proc. 3790, June 30, 1967,
32 F.R. 9803, effective date June 30, 1967.
Headnote 3(a)(iii) added. Pres. Proc. 3870, Sept. 24, 1968,
33 F.R. 14443, effective date Sept. 24, 1968.
Headnote 3(a)(i) modified. Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235, effective date Jan. 6, 1969.
Headnote 3(a)(iii) modified by deleting "950.10A, 950.10B,
and 950.10C" and inserting "950.10B, 950.10C, and
950.10D" in lieu thereof. Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235, effective date Jan. 6, 1969.

950.[illegible]--Heading immediately preceding item 950.00 modified.
[illegible] Pres. Proc. 3790, June 30, 1967, 32 F.R. 9803, effective
[illegible] date June 30, 1967.
[illegible]

949.[illegible]--[illegible] as item 950.00. Pres. Proc. 3790, June 30, 1967,
32 F.R. 9803, effective date June 30, 1967.
Redesignated as item 949.[illegible]. Pres. Proc. 3856, June 10,
1968, 33 F.R. 8570, effective date June 10, 1968.

949.[illegible]--Item 949.[illegible] added. Pres. Proc. 3856, June 10, 1968,
33 F.R. 8570, 9143, effective date June 10, 1968.
Continued in force by Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235.

950.01--Heading immediately preceding item 950.01 modified by
[illegible] adding reference to dried whey, and article descrip-
[illegible] tion for item 950.01 modified by adding reference
[illegible] to item 113.[illegible]. Pres. Proc. 3597, July 7, 1964,
3 CFR, 1964 Supp., P. 41, effective date July 7,
1964.

PROVISION

950.06--Article description for item 950.06 modified by adding
reference to butter oil. Pres. Proc. 3558, Oct. 5,
1963, 3 CFR, 1959-1963 Comp., P. 310, effective
date Oct. 5, 1963.

950.07--Quota quantity increased from 3,167,000 pounds to
5,016,999 pounds. Pres. Proc. 3562, Nov. 26, 1963,
3 CFR, 1959-1963 Comp., P. 315, effective date
Nov. 26, 1963.

950.08--Quota quantity provisionally increased from 2,780,100
pounds to 3,706,800 pounds for the quota year ending
June 30, 1966. Pres. Proc. 3709, March 31, 1966,
3 CFR, 1966 Comp., P. 52, effective date March 31,
1966.

950.08--Item 950.08 deleted and item 950.08A added in lieu
950.08A thereof. Pres. Proc. 3790, June 30, 1967,
32 F.R. 9803, effective date June 30, 1967.

950.08B--Item 950.08B added. Pres. Proc. 3790, June 30, 1967,
32 F.R. 9803, effective date June 30, 1967.

950.09--Item 950.09 redesignated as item 950.09A.
950.09A Pres. Proc. 3870, Sept. 24, 1968, 33 F.R. 14443,
effective date Sept. 24, 1968.

950.09B--Item 950.09B added. Pres. Proc. 3870, Sept. 24, 1968,
33 F.R. 14443, effective date Sept. 24, 1968.
Continued in force by Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235.

950.10A--Items 950.10A, 950.10B, and 950.10C and heading
950.10B immediately preceding item 950.10A added.
950.10C Pres. Proc. 3870, Sept. 24, 1968, 33 F.R. 14443,
950.10D effective date Sept. 24, 1968.
Item 950.10C redesignated as item 950.10D and modified.
Pres. Proc. 3884, Jan. 6, 1969, 34 F.R. 235, effective
date Jan. 6, 1969.
Items 950.10A and 950.10B redesignated as items 950.10B
and 950.10C, respectively. Pres. Proc. 3884, Jan. 6,
1969, 34 F.R. 235, effective date Jan. 6, 1969.
New item 950.10A added. Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235, effective date Jan. 6, 1969.

950.12--Item 950.12 deleted and new items 950.12 and 950.13
950.13 and heading immediately preceding item 950.12 added
950.22 in lieu thereof. Pres. Proc. 3790, June 30, 1967,
950.23 32 F.R. 9803, effective date June 30, 1967.
Article description for item 950.13 modified by
deleting "182.91" and inserting "182.92" in lieu
thereof. Pres. Proc. 3822 (Kennedy Round), Dec. 16,
1967, 32 F.R. 19002, effective date Jan. 1, 1968.
Items 950.12 and 950.13 redesignated as items 950.22
and 950.23, respectively, and modified. Pres. Proc.
3884, Jan. 6, 1969, 34 F.R. 235, effective date
Jan. 6, 1969.

950.19--Item 950.19 added. Pres. Proc. 3884, Jan. 6, 1969,
34 F.R. 235, effective date Jan. 6, 1969.

A P P E N D I X B

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1968

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1968

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

Summary title and page; TSUS item	All countries: Amount in 1968	All countries: Percent change from 1967	First supplier: Country	First supplier: Value	Second supplier: Country	Second supplier: Value	Third supplier: Country	Third supplier: Value
Antipasto (p. 3)								
182.05	207	10	Italy	186	Spain	20	Portugal	1/
Corned beef hash and similar products (p. 7)								
182.10	130	74	Argentina	130	-	-	-	-
182.11	19	-11	Taiwan	6	Spain	4	U. King.	3
Bean cake, miso, and similar products (p. 11)								
182.15	201	31	Japan	101	Hong Kong	99	Taiwan	1
Bakery products and puddings (p. 15)								
182.20	20,685	23	Canada	7,241	U. King.	5,733	Denmark	1,390
Bread made with yeast as the leavening substance (p. 21)								
182.25	3,167	13	Canada	2,132	Sweden	315	Netherlands	292
Cereal breakfast foods (p. 27)								
182.30	875	-28	Switzerland	396	Canada	249	Belgium	60
Chewing gum (p. 33)								
182.32	1,717	65	Canada	1,211	Ireland	200	Denmark	117
Macaroni, noodles, vermicelli, and similar alimentary pastes (p. 39)								
182.35	2,841	9	Canada	1,277	Italy	923	Hong Kong	347
182.36	448	21	Japan	176	Switzerland	91	Hong Kong	63
Nonalcoholic preparations of yeast extract (other than sauces) for flavoring or seasoning food (p. 47)								
182.40	669	2/	U. King.	360	France	207	Netherlands	73
Sauces (p. 51)								
182.45	1,495	8	Japan	1,287	Hong Kong	199	Taiwan	7
182.46	1,723	53	Canada	597	Spain	216	Japan	181
Seaweeds and carrageenin (p. 59)								
182.48	746	7	Japan	510	Kor. Rep.	173	Canada	36
192.05	2,392	-6	Canada	1,565	Portugal	174	Chile	120
192.07	481	37	Denmark	366	U. King.	54	Japan	30
Soups and soup preparations (p. 69)								
182.50	44	57	Japan	36	U. King.	7	Hong Kong	1
182.52	3,104	17	Switzerland	1,784	Canada	643	Japan	203
Vinegar (p. 75)								
182.55	12	146	Canada	6	Netherlands	3	U. King.	3
182.58	128	43	Japan	56	Italy	34	France	23
Wild rice (p. 79)								
182.70	469	-52	Canada	469	-	-	-	-
Edible preparations not elsewhere enumerated (p. 83)								
182.90	10	-22	W. Germ.	1	Canada	1/	Japan	1/
182.92	570	3/	Australia	542	Belgium	18	Greece	5
182.93	-	-	-	-	-	-	-	-
182.9540	4,969	3/	Denmark	1,293	Japan	782	Argentina	567

See footnotes at end of table.

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1968

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

Summary title, and page; TSUS item	All countries: Amount in 1968	All countries: Percent change from 1967	First supplier: Country	First supplier: Value	Second supplier: Country	Second supplier: Value	Third supplier: Country	Third supplier: Value
Wheat gluten (p. 95)								
182.9520	2,070	3/	Canada	1,124	Australia	527	W. Germ.	235
Shellac, stick lac, seed lac, button lac, and other lacs (p. 101)								
188.10	2,183	-8	India	1,212	Thailand	552	W. Germ.	405
Balsams (p. 109)								
188.18	56	32	Brazil	56	-	-	-	-
188.20	206	-26	Turkey	76	Honduras	67	U. King.	61
188.22	121	24	Colombia	83	U. King.	22	Canada	15
188.24	315	-5	El Salvador	217	Ecuador	60	Nicaragua	16
Amber and amberoid (p. 117)								
188.30	1	3/	Denmark	1	-	-	-	-
Chicle, leche caspi and sorva (p. 121)								
188.32	3,471	34	Mexico	2,610	Guatemala	817	Nicaragua	33
188.34	4/	-100	-	-	-	-	-	-
188.3830	1,450	-15	Brazil	938	Peru	512	-	-
Water-soluble gums and other gums and resins not elsewhere enumerated (p. 127)								
188.36	5,682	-25	Sudan	5,436	Senegal	117	Nigeria	79
188.3810	2,098	-26	Pakistan	876	India	431	Italy	366
188.3820	3,154	18	Spain	1,458	Portugal	496	Italy	460
188.3840	2,587	18	Iran	2,525	Switzerland	17	India	16
188.3850	1,748	6	India	1,677	France	38	Austria	13
188.3870	2,654	-17	Brazil	549	Guatemala	429	India	295
Natural varnish resins (including cashew nut shell liquid) (p. 135)								
188.3855	1,300	-30	Mozambique	475	Brazil	448	India	304
188.3865	236	65	Malaysia	52	Philippines	49	Congo	28
Turpentine gum, spirits of turpentine, and rosin (p. 141)								
188.50	884	56	Mexico	651	Portugal	198	W. Germ.	32
Evergreen Christmas trees (p. 153)								
192.10	5,427	6	Canada	5,427	-	-	-	-
Citrus juices unfit for beverage purposes (p. 159)								
192.15	27	-21	Trinidad	12	Lw. Ww. I.	6	Mexico	4
Fresh cut flowers and articles of fresh plant parts (p. 161)								
192.20	802	97	Ecuador	217	Canada	208	Australia	164
Guar seed (p. 165)								
192.22	-	-	-	-	-	-	-	-
Hops, hop extract, and lupulin (p. 169)								
192.25	10,575	29	W. Germ.	8,852	Yugoslavia	1,351	France	283
192.30	1	-96	W. Germ.	1/	U. King.	1/	-	-
192.35	4	3/	Hong Kong	4	-	-	-	-

See footnotes at end of table.

Value of U.S. imports for consumption, by TSUS items included in the individual summaries of this volume, total and from the 3 principal suppliers, 1968

(In thousands of dollars. The dollar value of imports shown is defined generally as the market value in the foreign country and therefore excludes U.S. import duties, freight, and transportation insurance)

Summary title and page; TSUS item	All countries: Amount in 1968	All countries: Percent change from 1967	First supplier: Country	First supplier: Value	Second supplier: Country	Second supplier: Value	Third supplier: Country	Third supplier: Value
Licorice root and licorice extract (p. 177)								
192.40	2,060	-34	Iraq	691	Iran	670	U.S.S.R.	520
192.45	414	13	Israel	467	Turkey	5	Japan	2
Peat moss (p. 185)								
192.50	102	-45	Canada	87	W. Germ.	13	Ireland	2
Broom Corn (p. 189)								
192.55	4,679	32	Mexico	4,264	Italy	188	Argentina	122
Straws and other fibrous substances not elsewhere enumerated, crude or processed (except broom corn) (p. 195)								
192.60	-	-	-	-	-	-	-	-
192.65	165	46	Mexico	140	Brazil	16	Sier. Ln.	8
192.70	2,761	-3	Mexico	2,761	-	-	-	-
192.75	-	-	-	-	-	-	-	-
192.80	1,639	-17	Mexico	1,203	Sier. Ln.	253	Brazil	93
192.85	1,571	4	Mexico	835	India	626	Brazil	61
Teasels (p. 201)								
192.90	8	-53	France	4	Italy	3	Japan	2
Tonka beans (p. 205)								
193.10	102	-62	Venezuela	51	Trinidad	46	Brazil	4
Vanilla beans (p. 209)								
193.15	9,835	74	Malagasy Rep.	8,886	Indonesia	356	Mexico	338
Wafers, not edible (p. 213)								
193.20	139	3	Italy	51	Netherlands	42	Belgium	24
Crude vegetable substances, not elsewhere enumerated (p. 215)								
193.25	5,239	53	Mexico	1,775	Canada	1,555	Guatemala	678

1/ Less than $500.
2/ No change.
3/ No imports reported for 1967.
4/ No imports reported for 1968.

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

OTHER AVAILABLE VOLUMES OF THE SUMMARIES SERIES

Schedule	*Volume*	*Title*
1	1	Animals and Meats
1	2	Fish: Fresh, Chilled, Frozen, or Cured
1	3	Fish Products, Shellfish, and Shellfish Products
1	4	Dairy Products and Birds' Eggs
1	5	Live Plants and Seeds
1	6	Cereal Grains, Malts, Starches, and Animal Feeds
1	7	Vegetables and Edible Nuts
1	8	Edible Fruit
1	9	Sugar, Cocoa, Confectionery, Coffee, Tea and Spices
1	11	Tobacco and Tobacco Products
1	12	Animal and Vegetable Fats and Oils
1	13	Hides, Skins, Leather, Feathers, and Miscellaneous Articles of Animal Origin
2	1	Wood and Related Products I
2	2	Wood and Related Products II
2	3	Paper and Related Products I
2	4	Paper and Related Products II
3	4	Felts, Batting, Nonwoven Fabrics, Fish Nets, Machinery Belts and Clothing, Hose, Coated Fabrics, and Other Fabrics for Special Purposes
3	5	Textile Furnishings and Apparel
3	6	Cordage, Braids, Elastic Yarns and Fabrics, Trimmings, Packing, Polishing Cloths, Sacks, Labels, Lacings, Rags, and Other Miscellaneous Textile Products
4	2	Inorganic Chemicals I
4	3	Inorganic Chemicals II
4	4	Inorganic Chemicals III
4	6	Organic Chemicals II
4	9	Glue, Gelatin, Aromatic Substances, Toilet Preparations, Surface-Active Agents, Soaps, Dyes, and Tannins
4	10	Pigments, Inks, Paints, and Related Products
4	12	Fatty Substances, Waxes, and Miscellaneous Chemical Products