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CANNED TOMATOES AND TOMATO PASTE

REPORT

OF

THE UNITED STATES TARIFF COMMISSION

TO

THE PRESIDENT OF THE UNITED STATES

DIFFERENCES IN COSTS OF PRODUCTION OF CANNED TOMATOES AND TOMATO PASTE IN THE UNITED STATES AND IN THE PRINCIPAL COMPETING COUNTRY AS ASCERTAINED PURSUANT TO THE PROVISIONS OF SECTION 315 OF TITLE III OF THE TARIFF ACT OF 1922

Printed for the use of the Committee on Finance

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CHARTS

LETTER OF TRANSMITTAL

MARCH 6, 1929.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT: I have the honor to transmit herewith the report of the Tariff Commission in the investigations, for the purposes of section 315 of the tariff act of 1922, of the costs of production in the United States and in the principal competing foreign country, of canned tomatoes and tomato paste.

The report consists of three parts and a statistical appendix. Part I presents general information with reference to the investigations of canned tomatoes and tomato paste (pp. 1 to 17). Part II presents cost-of-production data and the commission's summary with respect to canned tomatoes (pp. 17 to 40). Part III presents cost-of-production data and the commission's summary with respect to tomato paste (pp. 41 to 51).

Respectfully,

THOMAS O. MARVIN, *Chairman.*

CANNED TOMATOES AND TOMATO PASTE

UNITED STATES TARIFF COMMISSION,
Washington, February 28, 1929.

To the PRESIDENT:

The United States Tariff Commission respectfully submits the following report upon investigations of the differences in costs of production and other advantages and disadvantages in competition of canned tomatoes and tomato paste in the United States and in the principal competing country for the purposes of section 315 of Title III of the tariff act of 1922.

INTRODUCTION

Reference to files.—The documentary and statistical material upon which this report is based is in the files of the commission and available to the President. It comprises the original cost schedules and other basic data, the papers and reports at different stages of the investigation, and a transcript of the public hearing. Included in the basic material are matters of a confidential nature, the disclosure of which is forbidden by section 708 of the revenue act of 1916, the pertinent provisions of which are as follows:

SEC. 708. It shall be unlawful for any member of the United States Tariff Commission, or for any employee, agent, or clerk of said commission, or any other officer or employee of the United States, to divulge, or to make known in any manner whatever not provided for by law, to any person, the trade secrets or processes of any person, firm, copartnership, corporation, or association embraced in any examination or investigation conducted by said commission, or by order of said commission, or by order of any member thereof.

RATES OF DUTY

The rates of duty for canned tomatoes and tomato paste since the act of 1909 have been as follows:

Act of—	Canned tomatoes	Tomato paste
1922	15 per cent ad valorem	40 per cent ad valorem.
1913	25 per cent ad valorem	25 per cent ad valorem.
1909	40 per cent ad valorem	40 per cent ad valorem.

HISTORY OF INVESTIGATIONS

Canned tomatoes.—The investigation of the cost of production of tomatoes prepared or preserved in any manner, including tomato pulp (par. 770), was instituted on June 10, 1927. Applications for an

investigation under section 315 looking toward an increase in the rate of duty were received from the following:

Name of applicant:	Date of application
The Tri-State Packers Association	May 24, 1926.
Indiana Canners Association	May 27, 1926.
Pennsylvania Canners Association	May 28, 1926.
Association of New York State Canners (Inc.)	June 1, 1926.
Ohio Canners Association	June 7, 1926.
Utah Canners Association	June 14, 1926.
Canners Association of Virginia	June 17, 1926.
National Canners Association	June 26, 1926.
Baltimore Canned Food Exchange	July 15, 1926.
American Farm Bureau Federation	Aug. 12, 1926.

Tomato paste.—The investigation of the cost of producing tomato paste was instituted on October 14, 1927. Applications for an investigation looking toward a decrease in the rate of duty were received from P. Pastene & Co. (Inc.), New York, July 13, 1927; Sclafani Bros., Brooklyn, N. Y., October 12, 1927.

The Indiana Canners Association, when applying on May 27, 1926, for investigation looking toward an increase in the duty on canned tomatoes, also urged that the duty on tomato paste be increased.

These two investigations required data on the costs of growing tomatoes for manufacture in the United States, on the costs of canning tomatoes, and on the costs of manufacturing tomato paste. Costs of tomatoes grown in the United States for canning and manufacturing were obtained by a crew of three men under the direction of an agricultural expert during the months of September, October, and November, 1927. Two cost accountants obtained the domestic costs of canning tomatoes and tomato paste in August, September, October, and December, 1927, and in January and February, 1928.

Costs of growing and canning tomatoes and costs of manufacturing tomato paste in Italy were not obtained by the commission. The invoices of importations of canned tomatoes and of tomato paste from Italy for the period September, 1926, to August, 1927, inclusive, were analyzed. Supplemental data were obtained from importers.

Public notice of the institution of the investigation was given in the usual form by posting in the Washington and New York offices of the commission and by publishing in Treasury Decisions and Commerce Reports. After due notice, as prescribed by law, a public hearing was held in the offices of the commission in Washington on September 18, 19, 20, and 21, 1928, at which interested parties were given opportunity to be present, to produce evidence, and to be heard. Briefs were filed on November 26, 1928. Prior to the public hearing a preliminary statement presenting information obtained by the commission in the investigation was furnished to interested parties.

INFORMATION OBTAINED IN THE COMMISSION'S INVESTIGATIONS

The commission's investigations covered (1) the costs of growing tomatoes to be used for canning or for tomato paste, (2) the costs of canning tomatoes, and (3) the costs of manufacturing tomato paste. The data secured by the commission in these investigations are reported in three parts: Part I, tomatoes for manufacture; Part II, canned tomatoes; and Part III, tomato paste.

PART I

Tomatoes for Manufacture

The tomato is grown for food in temperate and semitropical countries. The plant was discovered in western South America by Spanish explorers and was introduced in Europe in the sixteenth century. Originally held to be poisonous, it was cultivated for 300 years as a botanical curiosity and it was not until the middle of the nineteenth century that its use as a food became popular. Tomato plants are cultivated in practically all sections of the United States. In 28 States tomatoes are produced for sale to canners.

USES

Tomatoes are grown for two general uses in the United States: (1) For consumption as a fresh vegetable and (2) for manufacture into the various types of tomato products. The discussion which follows is limited to tomatoes grown for canning and for other manufacturing purposes. Another inquiry of the commission, which covers the costs of tomatoes used as fresh vegetables, is in progress.

The chief tomato products are canned tomatoes, canned tomato soup, tomato paste, tomato pulp, and condiments such as catsup and chili sauce.

Containing an antiscorbutic vitamin which is not destroyed even in the sterilizing process of canning, tomatoes have an important use in the prevention of diseases of malnutrition common in young children. The juice of canned tomatoes supplies the same antiscorbutic vitamin present in orange juice.

COMPARABILITY OF DOMESTIC AND ITALIAN RAW TOMATOES USED IN MANUFACTURE

The American tomato is large and globular. Most of the tomatoes used for canning in Italy are somewhat smaller and of different shape than the domestic, being 3 inches long, and 1 inch in diameter. As a rule they have a deeper red color than the average United States tomato. In contrast with the domestic tomato, they have practically no core and the flesh is somewhat firmer. Some varieties of tomatoes of the globular form are grown in northern Italy, but they are used almost exclusively in the manufacture of tomato paste.

Tomatoes grown in the eastern and central part of the United States are somewhat higher in acid and lower in sugars than those grown in the Mountain States and California. The Italian tomato runs somewhat higher in solids and sugars and lower in acid than the domestic tomatoes. California and Utah tomatoes more nearly approximate Italian tomatoes in composition than any other domestic tomatoes, but as has been already stated they differ somewhat in color, shape, and flavor.

PRODUCTION OF TOMATOES IN THE UNITED STATES

Localization of the industry.—The major part of the United States production of tomatoes for canning and manufacturing is produced in what is known as the tomato belt. This belt crosses the United

States about the parallel 39°, running from Baltimore westward through Indianapolis, touching southern Maryland, southern New Jersey, southern Ohio, Illinois, Indiana, northern Missouri, Colorado Utah, Nevada, and California. The crop is concentrated within those limits because the areas farther north, where there are early frosts, will not yield so large a tonnage and because the southern crop splits soon after ripening. The southern crop is usually picked green and shipped for use as a fresh vegetable.

Table 1 shows the production of tomatoes for manufacture in the more important tomato-growing States.

TABLE 1.—*Tomatoes for manufacture: Acreage, yield per acre, price per ton paid by canners, total production, and value by States for the years 1925, 1926, and 1927*

[Source: Vol. 9, No. 12, Crops and Markets, United States Department of Agriculture]

State	Acreage			Yield per acre			Production			Price per ton paid by canners			Total value (000 omitted)		
	1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927
				Short tons	*Short tons*	*Short tons*	*Short tons*	*Short tons*	*Short tons*						
Arkansas	20,340	11,630	11,510	3.0	2.5	3.0	61,000	29,100	34,500	$13.65	$11.86	$12.76	$833	$345	$440
California	30,000	32,250	28,760	6.0	6.4	6.2	180,000	206,400	178,300	16.29	15.61	15.00	2,932	3,222	2,674
Colorado	3,040	2,350	2,250	8.5	7.5	5.0	25,800	17,000	11,200	11.50	12.00	12.00	297	211	134
Delaware	20,000	11,700	15,000	5.3	2.0	5.1	106,000	23,400	76,500	16.27	20.00	14.00	1,725	468	1,071
Illinois	7,650	5,270	5,110	3.8	4.0	4.4	29,100	21,100	22,500	12.33	13.44	13.98	359	284	315
Indiana	67,340	49,990	42,990	4.5	3.5	3.8	303,000	175,000	163,400	12.79	12.60	13.06	3,875	2,205	2,134
Iowa	3,660	3,850	4,080	3.7	3.3	4.5	13,500	12,700	18,400	14.55	12.88	14.29	196	164	263
Kentucky	9,550	6,950	6,530	4.0	3.0	3.2	38,200	20,800	20,900	13.46	12.25	13.08	514	255	273
Maryland	49,800	37,000	34,410	5.0	2.4	4.4	249,000	88,800	151,400	15.97	13.90	14.28	3,976	1,234	2,162
Michigan	2,000	1,800	1,800	6.8	5.0	5.5	13,600	9,000	9,900	11.91	11.80	12.13	162	106	120
Missouri	39,150	25,620	17,930	3.5	2.5	2.0	137,000	64,000	35,900	13.52	11.85	12.87	1,852	758	462
New Jersey	32,000	32,000	28,000	7.0	4.8	5.2	224,000	153,600	145,600	17.00	20.40	18.00	3,808	3,133	2,621
New York	13,550	9,850	10,540	6.8	5.0	6.7	92,100	49,200	70,600	16.31	15.30	14.92	1,502	753	1,053
Ohio	8,560	8,000	10,000	6.0	4.8	4.5	51,400	38,400	45,000	13.09	11.20	12.45	673	430	560
Pennsylvania	4,780	3,370	3,740	5.4	3.0	5.0	25,800	10,100	18,700	16.00	13.40	14.24	413	135	266
Tennessee	11,820	8,200	8,450	2.0	3.0	2.9	23,600	24,600	24,500	15.39	13.42	13.95	363	330	342
Utah	6,850	2,630	5,200	18.0	7.0	9.3	123,500	18,400	48,400	11.98	10.00	11.00	1,480	184	532
Virginia	15,730	6,000	6,420	3.5	3.5	4.0	55,100	21,000	25,700	16.19	12.73	13.75	892	267	353
Other States	4,100	3,040	3,310	5.0	3.0	2.3	20,500	9,100	7,600	15.24	13.60	14.43	312	124	110
Total and average	349,930	261,500	246,030	5.1	3.8	4.5	1,772,200	992,300	1,109,000	14.77	14.72	14.32	26,164	14,608	15,885

Number of producers.—No recent data are available as to the number of farms on which tomatoes are grown for use in manufacture. The distribution of tomatoes grown for canning and other manufactures is shown in Table 1. According to the United States census in 1920 tomatoes for commercial sale (including table stock and manufacturers' stock) were produced on 170,693 farms with a total acreage of 316,399, or an average of 1.85 acres to the farm. There are but few large tracts of land devoted exclusively to the growing of tomatoes for canning. Production is usually limited to a few acres per farm.

Production, yield, and prices of tomatoes for manufacture.—In Table 2, there are given for 1918 to 1927, inclusive, the acreage, yield per acre, and prices paid for tomatoes grown for manufacture in the United States.

TABLE 2.—*Tomatoes for manufacture: Acreage, yield per acre, value, production, for the United States, 1917 to 1927*

[Source: Bull. 22, U. S. Department of Agriculture]

Year	Acres	Yield per acre	Price per ton paid by canners	Total production	Total value
		Short tons		*Short tons*	
1918	354,090	4.4	$21.73	1,565,900	$34,020,000
1919	276,960	3.8	18.14	1,059,000	19,208,000
1920	223,330	4.7	19.71	1,056,200	20,818,000
1921	87,730	4.9	11.62	429,100	4,985,000
1922	228,920	5.1	12.59	1,176,000	14,811,000
1923	260,900	4.3	13.50	1,122,400	15,152,000
1924	289,270	4.0	15.57	1,148,500	17,881,000
1925	349,930	5.1	14.77	1,772,200	26,164,000
1926	261,500	3.8	14.72	992,300	14,608,000
1927	246,030	4.5	14.32	1,109,000	15,885,000

An analysis of the statistics in Table 2 shows that the industry has gone through two clearly distinguishable phases since 1918: The first phase extended from 1918 to 1921; the second from 1921 to 1925.

From 1918 to 1921 there was a definite downward trend in the prices paid the farmers for tomatoes. During the period of falling prices the acreage was decreased and with it the total production. During this period the variations in yield, although not extreme, showed an upward trend.

From 1921 to 1925 there was an upward trend in prices, although the price level of the earlier postwar years was never reached. During this period, the acreage was expanded as rapidly as it had been reduced during the earlier postwar period. With the increased acreage there was increased production. In 1925 the record year was reached. During this period there was a downward trend in yield, except in 1925, the year of maximum acreage and maximum production, when the yield was also abnormally high. The unusually favorable climatic conditions explain the high yield in the year 1925, when acreage and production were at a maximum.

The yield per acre is probably the most important element in the unit cost and is apparently affected from year to year by climatic conditions.

PRODUCTION OF TOMATOES IN ITALY

There are four main types of agricultural enterprise in Italy. These are the family farm, the highly developed or industrialized farm, the less developed farm divided up into portions or holdings each cultivated by separate tenants or workers, and the undeveloped farm.[1]

Land holdings in Italy are generally small as compared with those in the United States. In Italy in 1912 there were 4,931,000 landowners, of whom 3,275,000 owned less than 2.5 acres each, 614,000 owned from 2.5 to 4.9 acres each, 45,000 owned from 4.9 to 9.9 acres each, while 342,000 owned from 12.4 to 173 acres each.[2]

Cultivation is more intensive in Italy than in the United States. Several crops are often grown on a small acreage. Tomato plants are usually trained on trellises, which keep the fruit clean and out of contact with the earth. Although this method of agriculture requires more hand labor, it economizes the use of land and insures a cleaner and sounder product.

Table 3 shows the acreage, yield per acre, and total production of tomatoes in Italy for the years 1911 to 1926.

TABLE 3.—*Tomatoes: Acreage, yield per acre, and total production in Italy, 1911 to 1926*

[Source: Bull. 987, U. S. Department of Agriculture; Notizie periodiche di statistica Agraria]

Year	Acres	Yield per acre	Total yield
		Short tons	*Short tons*
1911	61,000	8.90	542,900
1912	74,000	8.90	658,600
1913	72,000	9.70	698,400
1914	62,000	8.50	527,000
1915	62,000	6.60	409,200
1916	67,000	6.30	422,100
1917	80,000	7.25	580,000
1918	(1)	(1)	(1)
1919	73,000	6.50	474,500
1920	76,000	5.75	437,000
1921	77,589	5.76	446,652
1922	88,215	5.10	449,628
1923	98,850	6.06	593,919
1924	112,431	7.40	831,914
1925	(1)	(1)	[2] 635,255
1926	94,172	6.20	[2] 583,447

[1] Not available.
[2] Report of U. S. commercial attaché, Rome, Dec. 30, 1926.

The average yield per acre is considerably higher in Italy than in the United States. The more intensive method of agriculture probably explains this difference in yield.

The distribution of tomato production in Italy is an important indication of the location of the leading canning sections. In Table 4 the acreage and production of tomatoes in Italy for 1926 are shown by regions.

[1] International Labor Review, November, 1926.
[2] Mortara A.—I doneri della proprieta fondiaria a la questione sociale.

TABLE 4.—*Tomatoes: Distribution of tomato production in Italy in 1926* [1]

	Acres	Yield
		Short tons
Piedmont	825	9,369.5
Liguria	1,455	24,471.0
Lombardy	571	4,629.7
Veneto	714	6,944.5
Emilia (Parma region)	18,014	170,856.5
Tuscany (Florence region)	3,262	20,392.5
Marches	969	5,511.5
Umbria	618	3,637.6
Latium	573	4,409.2
Abruzzi	4,126	23,919.9
Campania (Naples region)	30,640	154,322.0
Apulia (East of Naples)	9,390	55,115.0
Basilicata	895	1,984.1
Calabria	5,401	23,148.3
Sicily	10,551	40,233.9
Sardinia	4,893	24,911.9
Venezia Guilia and Zara	1,236	9,590.0
Total	94,172	583,447.1

[1] Report of U. S. commercial attaché, Rome, Dec. 30, 1926.

Although tomatoes are grown in practically every section of Italy, the above table explains the localization of the manufacturing industry in the Naples and Parma regions.

The commission has no information as to the general methods employed by growers of tomatoes in selling their product to canners. It is known, however, that as in the United States, tomato canneries in Italy are located in or near tomato-growing regions.

COST OF PRODUCTION OF TOMATOES FOR MANUFACTURE

UNITED STATES

SCOPE OF THE INVESTIGATION

Data on the farm cost of producing tomatoes for canning in the United States were obtained in six tomato-growing States, namely, California, Utah, Indiana, New York, New Jersey, and Maryland. The area or areas covered in each State were selected not only because they are important in tomato production but because they were considered typical with regard to yield per acre, farm organization, labor conditions, and type of soil. Cost data were obtained for 214 farms producing 13,367 tons on 2,018.4 acres in 1927 and 14,072 tons on 1,850.7 acres in 1926.

Table 5 shows the number of records taken in the six States selected for cost study, the acreage of tomatoes harvested for canning, and the actual and relative quantities of tomatoes harvested on the farms from which cost data were obtained.

Farm-cost data were obtained by the survey method in the summer and fall of 1927. Four agricultural experts, aided by a statistical assistant conducted the cost inquiry in the areas selected.

AREAS SELECTED FOR COST STUDY

The areas selected for obtaining farm costs were as follows:

California, three areas: (1) Los Angeles and San Bernardino Counties in the vicinity of Los Angeles; (2) Santa Clara County in

the vicinity of San Jose; and (3) Yolo and Sacramento Counties in the vicinity of Sacramento.

In Utah, one area in Davis and Weber Counties in the vicinity of Ogden.

In Indiana, two areas: (1) Howard County in the vicinity of Kokomo, and (2) Jackson County in the vicinity of Brownstown and Orange County in the vicinity of Paoli.

In New York, one area in Orleans County in the vicinity of Albion.

In New Jersey, one area in Cumberland County in the vicinity of Bridgeton.

In Maryland, one area in Talbot and Caroline Counties in the vicinity of Easton and Denton.

TABLE 5.—*Tomatoes for manufacture: Scope of inquiry into the farm costs of production in the United States, 1926 and 1927*

Area	Number of records	Acreage of and quantity harvested on farms covered by cost inquiry							
		1926				1927			
		Total acres	Total production	Acres per farm [1]	Average production per acre	Total acres	Total production	Acres per farm [1]	Average production per acre
Total in areas studied	214	1,850.7	*Tons* 14,072.0		*Tons*	2,018.4	*Tons* 12,367.0		*Tons*
Easton, Md.	25	114.3	353.4	4.57	3.09	115.3	489.3	4.61	4.24
Bridgeton, N. J.	26	250.5	1,197.2	9.63	4.78	235.6	1,369.5	9.06	5.81
Albion, N. Y.	26	159.5	1,221.4	6.13	7.66	144.0	1,387.4	5.53	9.63
Brownstown, Ind.	27	164.5	1,097.9	6.09	6.67	119.5	734.2	4.43	6.14
Kokomo, Ind.	25	99.2	569.6	3.97	5.74	140.5	1,234.5	5.62	8.79
Ogden, Utah	32	117.0	1,126.5	3.66	9.63	163.5	1,512.4	5.11	9.25
Sacramento, Calif.	16	232.0	1,561.0	14.50	6.73	297.0	1,198.0	18.56	4.03
San Jose, Calif.	17	442.0	4,585.5	26.00	10.37	410.0	2,492.4	24.12	6.08
Los Angeles, Calif.	20	271.7	2,359.5	13.59	8.68	393.0	2,949.3	19.65	7.50

[1] Acres harvested.

AGRICULTURAL CONDITIONS IN AREAS STUDIED

In the California areas farm operations are given over largely to the production of fruits, nuts, and vegetable and flower seeds. In the Los Angeles area citrous fruits and walnuts predominate, while in the San Jose area prunes, and to some extent olives and nuts, are also important crops. In all three areas tomatoes compete with a large variety of intensive crops for the use of the land. The expansion or reduction of the acreage of tomatoes from year to year is influenced by the contract price offered by the canners before planting and by the relative profitableness of the competing crops. Although tomatoes are grown on irrigated land there is comparatively little irrigation of this crop.

In Utah the farms are small. Crops competing with tomatoes for the use of the land are potatoes, onions, sugar beets, alfalfa, and peas. All crops are irrigated.

The two areas in Indiana differ materially. In the Kokomo area the country is flat with very little waste or woodland. The acreage of tomatoes grown is determined by the relative profitableness of the tomato crop as compared with general farm crops, such as small

grains, corn, and hay. In the Brownstown area in Indiana there are more hills and waste land, and tomatoes are one of the principal cash crops.

The Albion, N. Y., area lies in a district whose climate is affected by the Great Lakes. The country is level and well adapted to a large number of farm crops. The principal competing crops are general farm crops and fruits.

In the Bridgeton area of New Jersey tomatoes must compete with very intensive truck crops. As in this region the ground is level and inclined to be sandy, it is necessary to use considerable quantities of fertilizer and manure. Most of the tomatoes here are grown on contract, but there are also considerable quantities grown and sold in the open market. It was not always possible to ascertain whether these tomatoes were canned or sold as fresh tomatoes.

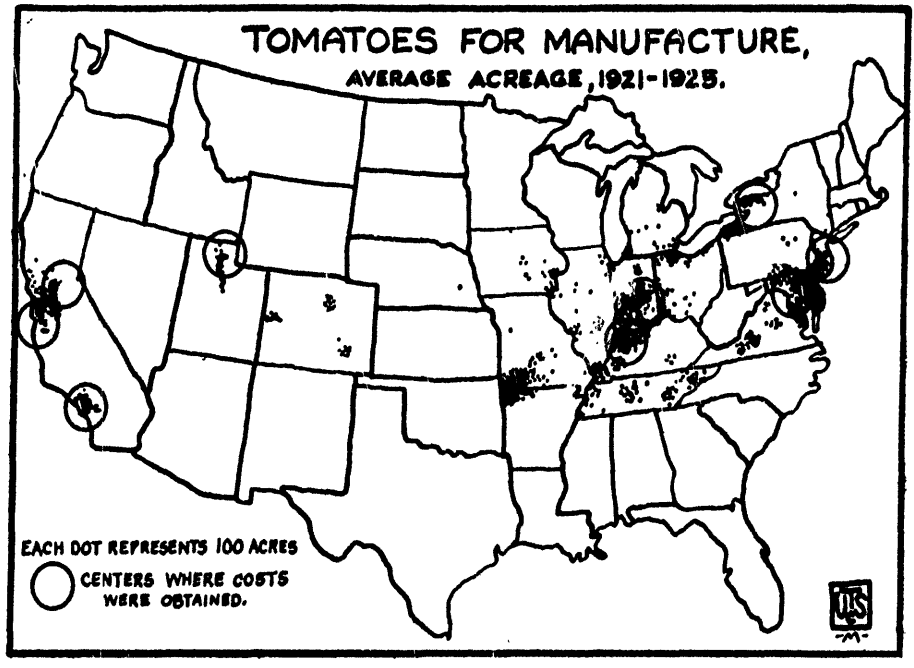

CHART 1

The area around Easton and Denton, Md., is very similar to that at Bridgeton, N. J. The tomato crop is competitive with truck crops. The country is low and sandy, requiring considerable quantities of fertilizer and manure. The yield, cost, and relative profitableness of tomatoes are very much the same as in the Bridgeton, N. J., area.

Table 6 shows for the areas investigated the acreage planted to the different crops.

The larger percentage of land given over to tomatoes in California areas shows that there is a greater specialization in tomatoes on the farms in that State than in any other.

METHODS OF GROWING TOMATOES FOR MANUFACTURE

Not so much labor, as a rule, is involved in the preparation of the soil for growing canning tomatoes as for the intensive truck crops, but more than for the general farm crops.

TABLE 6.—*Tomatoes for manufacture: Average acreage in tomatoes in 1926 and average acreage in tomatoes and other principal crops in 1927, per farm studied*

	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
1926									
Tomatoes	4.57	9.63	6.17	6.09	4.29	3.66	15.44	26.00	14.58
1927									
Tomatoes	4.61	9.06	5.54	4.62	5.62	5.14	18.56	24.12	19.65
Corn	20.76	21.89	3.00	21.17	23.07	.22	1.25	.....	.....
Oats	.....	.42	5.63	.93	12.36	.22	.....	.....	.....
Wheat	32.20	9.31	9.31	12.96	5.52	1.13	.....	.....	.....
Hay	16.26	22.72	19.80	7.48	2.00	7.20	4.38	10.35	9.75
Potatoes	.44	11.20	.39	.....	.10	2.82	.....	.....	.....
Small crops	7.70	1.94	10.11	2.50	.....	5.34	20.31	5.00	7.99
Other crops	1.20	3.36	14.22	2.74	10.53	1.67	7.75	14.56	15.69
Rotation pasture	9.84	3.35	4.87	.55	6.84	4.05	6.81	1.00	.....
Idle land	.....	.....	.38	12.14	.16	.99	2.00	2.17	.17
Total crop land	93.01	83.25	73.25	65.09	66.20	28.78	61.06	58.10	53.25
Permanent pasture	.....	7.69	.....	.....	.....	.....	.....	.....	.....
Woods and waste	20.76	3.23	3.86	26.98	3.88	.....	.94	.....	.....
Other land	25.65	25.45	13.04	27.76	11.30	.02	4.09	.65	.25
Total farmed	139.42	119.62	90.15	119.83	81.38	28.80	66.09	58.75	53.50

In the Easton, Bridgeton, Albion, Brownstown, and Kokomo areas it is usually sufficient to plow once and harrow two or more times but in Ogden and the three California areas the ground is sometimes plowed twice in order to produce the desired physical condition of the soil. Table 9 shows that fertilizer costs are an important item in some areas, especially in the East.

For success in the tomato crop the plants should be sturdy, well-rooted, free from disease, and ready for transplanting by the time of the last killing frost. Plants may be raised in hotbeds or greenhouses, in cold frames, or in seed beds, or the seed may be planted directly in the field. In the Easton and Bridgeton areas plants were usually raised in seed beds, and quite frequently by some one in the community who made a specialty of growing plants. In the Albion and Ogden areas plants were usually started in a hotbed or in a greenhouse and transplanted to a cold frame before being set in the field. In the Kokomo area the practice of having the plants raised in the South and delivered at transplanting time was followed, while in the Brownstown area most of the plants were raised locally in hotbeds or cold frames. Plants in the three California areas were either raised in seed beds or the seed was planted directly in the field and the excess plants either hoed out or used to replant.

Tomatoes are planted in the field as soon as possible after the danger of killing frosts is passed, so as to give the crop season long enough for maturing.

After the plants are set, either by hand or machine, they are cultivated or worked, generally from four to seven times. For the areas studied the averages of the number of times the plants were cultivated during 1927, were as follows: Easton, 4.1 times; Bridgeton, 5.4 times; Albion, 7.3 times; Brownstown, 4.7 times; Kokomo, 5 times; Sacramento, 4.3 times; San Jose, 6 times; and Los Angeles, 5.8 times.

If the region is infested with disease and pests the plants are sprayed.

In the sections where irrigation is practiced, it is customary to irrigate at regular intervals throughout the growing season. It is customary to follow each irrigation with a cultivation. Tomatoes ordinarily do not require so much water as most other farm crops.

In the Ogden, Los Angeles, and San Jose areas surface irrigation is practiced, while in the Sacramento delta a proper water level to subirrigate is maintained with the aid of levees and drainage pumps.

Tomatoes for manufacture should be harvested when they are red ripe. It is customary to go over the field at least once a week to gather the ripe fruit. The tomatoes are picked and carried in boxes or baskets to the edge of the field or hauled by wagon or truck directly from the fields to the place of delivery.

The tomato crop is usually harvested by hand labor. If the farmer requires more help than his family can give him, he commonly contracts at a fixed rate per crate or per ton. Before the farmer plants his crop, he must consider the possibility of adequate labor at harvesting time. Difficulty or ease of obtaining such labor affects the number of acres he will plant to tomatoes.

Tomatoes may be hauled to the factory either by the farmer or through some arrangement with the factory.

LAND TENURE

Table 7 shows data on land tenure for the different areas covered.

TABLE 7.—*Tomatoes: Land tenure on farms covered by the commission's cost inquiry*

[Average acres per farm]

	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Owned	120.54	109.54	85.84	95.09	63.94	25.84	108.35	40.77	21.15
Share rented	18.88	.....	4.31	.....	5.04	2.24	5.31	10.75	31.55
Cash rented	.....	10.08	.....	24.74	12.40	.72	7.06	7.23	1.30
Total	139.42	119.62	90.15	119.83	81.38	28.80	120.72	58.75	54.00
Rented out	.....	.....	.....	.....	.....	.....	54.63	.....	.50
Total farmed	139.42	119.62	90.15	119.83	81.38	28.80	66.09	58.75	53.50

EXPLANATION OF THE ITEMS MAKING UP THE FARM PRODUCTION COSTS

Labor.—Except for contract work, labor employed in tomato production may be classified as (1) hired labor, and (2) unpaid labor of the farmer and his family. On the California farms, from which cost data were obtained, a large proportion of the labor was hired. In Utah, however, where the farms are small, most of the labor is performed by the farmer and his family. The cost of hired labor was computed by multiplying the number of hours of labor actually applied to the tomato crop by the rate of wages per hour paid for hired labor on each farm. The hourly wage rate was determined by adding to the monthly or daily cash wage the value of board, house rent, and other perquisites furnished, and by dividing the number of hours worked per month or per day into the total thus computed. The labor of the farmer himself (exclusive of supervision) was included in costs at the average hourly rate for hired labor. Where the farmer's wife and children were employed, their labor was charged at

the same rate paid women and children actually hired on the farm or at the going rate paid women and children in the community.

Contract work.—In some areas at least a part of the work on the tomato crop is done on contract. Contracts may be made for any or all operations. A contractor frequently supplies not only labor but also the necessary equipment, such as trucks and drivers in hauling tomatoes to the canneries. All contract work is entered into costs at the contract price, which covers labor or labor and equipment.

Supervision.—Where hired overseers were employed the item of supervision as entered in cost is the amount actually paid, plus perquisites, if any. Where farmers gave time to the supervision of the tomato crop as distinguished from actual work on the crop a charge for supervision rather than a charge for actual labor was allowed. In most areas there was some hired supervision and the farmer used the going rate for hired managers as a basis for determining the value of his supervision.

Tractor and truck costs.—Tractor and truck work was practically always contracted for. The cost of tractor and truck work done by the farmer was computed at the rates established for hiring tractors and trucks in the community.

Plants.—When plants were purchased they were charged at the purchase price. Where the farmer raised his own plants the costs of labor, materials, and construction were obtained and the sum of these items, less the value of plants sold, was taken as the cost of the plants used by the grower.

Fertilizers.—Commercial fertilizer was charged at what was paid for it but the cost of the labor needed to apply it was included in labor costs. Manure costs include the farmer's estimate of the farm value of manure when produced on the farm, or the actual price paid when purchased. The hauling and the applying of manure were charged in with other items of cost. The residual value of manure is taken into account by charging only 50 per cent of its cost to the first crop, 30 per cent to the second crop, and 20 per cent to the third crop.

Taxes.—All farm taxes were apportioned to the tomato crop in the ratio that the net value of land and equipment devoted to tomatoes bore to the total value of the farm, including buildings and other improvements, and equipment where taxed.

Machinery and equipment.—Machinery and equipment costs include repairs, depreciation, and housing costs of machinery. The costs of repairs and depreciation of each implement is prorated to tomatoes on the basis of use as estimated by the farmers and checked by the agents of the commission. Whether tractors, trucks, and automobiles were owned or hired by the farmer, the repairs, depreciation, and housing costs were computed from custom rates and included in the machinery and equipment item.

Irrigation.—Where irrigation is supplied by an irrigation company the rates charged the farmer are entered in costs. Where the farmer owns shares in an irrigation company, as at Ogden, Utah, interest on the investment in the shares, plus the annual assessment, is entered in costs. No dividends are paid on shares of this kind. These charges cover the whole cost of getting the water to the farmer's own ditches, including the maintenance of main and lateral ditches. In addition the farmer has the upkeep of his own ditches, but this

upkeep is included in labor costs. Where the farmer has his own irrigation system the irrigation charge includes the cost of fuel, repairs, and normal depreciation on the equipment. Interest on the investment in irrigation equipment has been included under general interest charges. Irrigation costs are prorated to tomatoes in the ratio that the amount of water used for tomatoes bore to the total amount of water used on the whole farm.

Credits.—Credits or deductions from costs include the sale of any ripe or green tomatoes not sold or delivered to canneries. These are not included in the yield per acre used in determining the cost per ton of canning tomatoes harvested.

Interest and rentals—interest on land.—In each area, information regarding the market value and cash rental of farm land in the community was secured from bankers, county agents, and other local authorities. Land values and rentals for individual farms were obtained from the farmer. In arriving at the value or rental of his land, the farmer took into consideration improvements, quality of land, and location with respect to markets and roads. If the valuation or rental appeared exceptional in the light of the information previously obtained, the farmer was closely questioned as to the reasons for such variation, and after more careful consideration of all factors, occasionally a farmer adjusted his original valuation. On the value of tomato land thus determined, interest was computed at the rate of 6 per cent per annum.

Interest on borrowed capital, equipment, and work stock.—Besides interest on borrowed capital for current expenses, imputed interest at 6 per cent was included on the present depreciated value of equipment and work stock used in tomato production.

Net cash rental of land.—As alternative to interest on land investment data were obtained as to the net cash rental value of the land planted to tomatoes. Where a farm was rented for cash, the gross rental was the rent actually paid. Where a farm was operated by the owner a gross rental was figured on information obtained from the farmer as to cash rental rates in the community. In order to obtain a net rental figure, all expenditures incurred by the landowner on land rented by him were deducted from the gross cash rental thus determined. Whether the total farm rental was actual or imputed, the judgment of the farm owner or operator was obtained as to the proportion that should be charged to the land planted to tomatoes.

Horse costs.—Horse costs were determined by obtaining from the farmer the annual depreciation on work stock, based upon the working life of the animals, the value of horse feeds, value of man labor required in taking care of the horses, taxes, stable, and harness charges. The value of stable manure was deducted from these costs and the result divided by the total number of hours the horses worked in order to obtain the horse cost rate per hour. The rate thus obtained was applied to the number of horse hours spent on tomatoes.

FARM COST OF PRODUCING TOMATOES FOR MANUFACTURE

Tables 8 and 9 show the detailed farm costs of producing a ton of tomatoes for manufacture in the years 1926 and 1927, respectively.

TABLE 8.—*Tomatoes for manufacture: Detailed summary of the items entering into the cost of growing tomatoes on all farms in the United States covered by the cost inquiry of the commission*

YEAR 1926

[Per ton of 2,000 pounds]

Cost data	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Detailed costs:									
Labor and supervision	$5.28	$2.55	$2.65	$4.83	$4.34	$6.50	$3.97	$3.81	$3.02
Contract work	.91	3.14	2.40	1.39	1.79	1.07	2.96	2.35	4.08
Horse work	2.16	1.49	1.01	2.34	1.81	1.54	.43	.55	.92
Tractor and truck	.65	1.40	1.30	.14	.79	.08	3.58	1.17	2.58
Plants	1.26	1.02	2.28	.84	1.16	1.39	.74	.68	.36
Containers	.59	.48	----	----	.17	.18	.44	.32	----
Fertilizers	6.76	7.06	1.89	1.25	1.32	.57	.01	.03	.30
Taxes	.37	.66	.24	.24	.48	.39	.48	.54	.99
Machinery	.54	.36	.17	.25	.15	.54	.10	.08	.18
Irrigation	----	----	----	----	----	.75	.02	1.37	1.12
Miscellaneous	.14	.19	.26	.13	.56	.07	.07	.13	.34
Total gross cost	18.66	18.35	12.20	11.41	12.57	13.08	12.80	11.03	13.89
Credits	----	----	----	----	----	----	.07	.07	1.02
Net cost	18.66	18.35	12.20	11.41	12.57	13.08	12.73	10.96	12.87
Interest:									
On land at 6 per cent	1.54	1.25	.91	.75	1.57	1.92	2.22	2.85	7.26
On other capital at 6 per cent	.30	.27	.12	.16	.10	.18	.05	.05	.11
Total interest on land and other capital	1.84	1.52	1.03	.91	1.67	2.10	2.27	2.90	7.37
Net cash rental	3.29	2.59	1.55	1.20	1.33	2.61	2.63	2.37	2.74
Total net cost:									
With interest on land and other capital as calculated above	20.50	19.87	13.23	12.32	14.24	15.18	15.00	13.86	20.24
With net cash rental on land and with interest on other capital	22.25	21.21	13.87	12.77	14.00	15.87	15.41	13.38	15.72
Returns per ton	18.42	17.31	15.29	12.30	13.07	10.04	15.03	14.36	17.23

TABLE 9.—*Tomatoes for manufacture: Detailed summary of the items entering into the cost of growing tomatoes on all farms in the United States covered by the cost inquiry of the commission*

YEAR 1927

[Per ton of 2,000 pounds]

Cost data	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Detailed costs:									
Labor and supervision	$3.81	$2.20	$2.02	$4.66	$2.70	$7.17	$6.84	$6.13	$3.37
Contract work	1.17	2.86	2.70	1.39	1.88	1.27	2.49	2.33	3.72
Horse work	1.74	1.32	.76	2.57	1.12	1.62	.83	.93	.63
Tractor and truck	.57	1.33	1.10	.13	.77	.09	4.51	2.02	2.78
Plants	.92	.81	1.98	.85	.66	1.55	1.13	1.17	.40
Containers	.41	.46	----	----	.10	.17	.42	.34	----
Fertilizers	4.78	6.04	1.54	1.64	.88	.69	.01	.09	.26
Taxes	.28	.53	.18	.25	.27	.44	.74	.84	.99
Machinery	.39	.30	.14	.29	.10	.56	.16	.15	.21
Irrigation	----	----	----	----	----	.77	.01	2.48	1.33
Miscellaneous	.15	.17	.21	.14	.39	.13	.17	.27	.47
Total gross cost	14.22	16.02	10.63	11.92	8.87	14.46	17.31	16.75	14.16
Credits	----	----	----	----	----	.05	.09	.19	.73
Net cost	14.22	16.02	10.63	11.92	8.87	14.41	17.22	16.56	13.43

TABLE 9.—*Tomatoes for manufacture: Detailed summary of the items entering into the cost of growing tomatoes on all farms in the United States covered by the cost inquiry of the commission*—Continued

YEAR 1927—Continued

[Per ton of 2,000 pounds]

Cost data	Easton, Md.,	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Interest:									
On land at 6 per cent	$1.12	$1.03	$0.72	$0.80	$0.97	$2.10	$3.50	$5.02	$8.26
On other capital at 6 per cent	.22	.22	.09	.18	.07	.20	.09	.09	.13
Total interest on land and other capital	1.34	1.25	.81	.98	1.04	2.30	3.59	5.11	8.39
Net cash rental	2.41	2.04	1.15	1.39	.79	2.63	4.07	4.12	2.99
Total net cost:									
With interest on land and other capital as calculated above	15.56	17.27	11.44	12.90	9.91	16.71	20.81	21.67	21.82
With net cash rental on land and with interest on other capital	16.85	18.28	11.87	13.49	9.73	17.24	21.38	20.77	16.55
Returns per ton	13.24	15.39	14.36	12.38	12.01	11.04	15.00	15.03	16.87

The costs of labor and supervision, contract work, horse work, and tractor and truck work show wide differences as between areas, because of the differences in the method of growing the crop. If these four items are added the total shows a marked uniformity. A noticeable uniformity is also found in the total gross cost of each of the eastern areas when the charge for fertilizer is excluded.

For the Easton, Bridgeton, Albion, and Brownstown areas interest at 6 per cent on land value is less than net cash rental, but in the Kokomo, Ogden, Sacramento, San Jose, and Los Angeles areas the interest at 6 per cent on land values is greater than net cash rental. The most conspicuous divergence is in the Los Angeles area. An examination of the records shows that this land has enhanced in value so that the interest on land value is almost three times its net cash rental. As the net cash rental more nearly approximates what the land is worth for growing tomatoes it is evident that in this area it has acquired a sales value greatly in excess of what it is worth in tomato culture.

The costs per acre of tomatoes for manufacture for 1926 and 1927, respectively, are shown in Tables 41 and 42 in the Appendix. A table of cumulative costs is also shown in the Appendix, Table 43, page 56.

ITALY

Information is not available to the commission as to either the total cost per ton, or for any important items of cost, in the growing in Italy of tomatoes for manufacture. Labor can be obtained at much lower wages than in the United States; the method of cultivation is more intensive. Harvesting calls for more labor per ton harvested than in the United States, because of the small size of the Italian tomato.

The price obtained by growers in the Naples district for tomatoes for manufacture ranged from 30 to 49 lire per quintal ($10.63 to $12.35 per short ton) in the season of 1925.[1] At the beginning of the harvest of 1926 the price was 60 lire per quintal ($20.10 per short ton), and by the end of September had increased to 70 or 80 lire per quintal ($23.46 to $26.81 per short ton).[2] A witness at the hearing before the commission testified that in 1927 his firm in Italy paid about 50 lire per quintal for raw tomatoes ($22.75 per short ton).[3] This price did not include cost of transporting the raw tomatoes to the factory. It was further testified by this witness that there was probably little waste in canning Italian tomatoes.

PART II

CANNED TOMATOES

THE CANNED-TOMATO INDUSTRY IN THE UNITED STATES

The canners' contracts for purchase of raw tomatoes.—Prior to the planting season the canner makes arrangements with local growers for the purchase of their production on a certain number of acres. The canner, having planned to manufacture a certain quantity of canned tomatoes or other tomato products, knows the quantity of raw fruit needed and contracts for the number of acres he believes will yield his requirements. In years of poor crops, insufficient tomatoes may be produced on the contracted acreage and in other years increased yields may force the canner to accept delivery of quantities of tomatoes in excess of those needed for his planned production. In many of the tomato-growing centers approximately 100 per cent of the commercial tomato acreage for canning is under contract. This is especially true in California, Utah, and Indiana. In the important growing sections in Maryland, New Jersey, and Delaware considerable quantities of tomatoes are grown for the open market. This is because in the eastern sections of the tomato belt the proximity of the tomato grower to large consuming markets enables him to sell his farm production directly to the consumer as a fresh vegetable or to the canner for manufacture. Canners and other buyers will attend open markets in the heart of the growing sections and will bid for the farmers' production.

The farmer who grows under contract is assured before he plants his crop a definite price per ton delivered and can approximate his receipts. The farmer who grows for the open market may receive high prices when crops are short, but low prices when crops are large. The production in the States in which the growing for the open market is prevalent tends to fluctuate widely. In Maryland there was a short crop of tomatoes for manufacture in 1924. Open market prices went as high as $60 per ton as compared with a contracted price of approximately $15 per ton. As a result, in 1925 many farmers who had grown under contract in the previous year grew for the

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[1] Report of Consul H. D. Finley, Sept. 27, 1929.
[2] Rates of exchange for 1925 and 1926, average of August, September, October, 3.9043 and 3.6945 cents per lira, respectively.
[3] Transcript of public hearing, Sept. 21, 1928, pp. 453-4.

open market. With the increase in the production of tomatoes for manufacture, open-market prices fell to as low as $5 per ton. In the years following this large crop, growers in Maryland cut their acreage considerably.

Although tomatoes for manufacture are largely produced by farmers, small amounts are grown by canners on their own or leased land. The commission has obtained no data to measure the importance of this production. In certain sections where canners regularly have had difficulty in obtaining adequate supplies of tomatoes, some of them grow tomatoes for their own account.

The canners' methods of marketing canned tomatoes.—The canner either manufactures canned tomatoes for sale to jobbers, brokers, or wholesale grocers, who distribute under their own labels, or he sells under his own label and distributes through brokers or his own salesmen. Until recently it has been customary for the canner who sells all or nearly all his estimated output under wholesale grocers' labels to sell for future delivery. Firms selling their own brands are generally large and financially strong. They usually advertise, and take greater risks and expect larger returns. The packer who is willing to have his goods sold under the wholesaler's or distributor's label is assured of the sale of his goods.

In recent years there has been a decided change in the marketing of canned goods which has affected the canners. Hand-to-mouth buying by retailers and wholesalers has become quite general. This applies not only to canned tomatoes, but to practically all canned foods. Canners find it necessary to carry in their inventories a considerable portion of their output long after the goods have been packed. Under the system followed before and directly after the World War, canners manufacturing for distributors usually delivered practically all of their future-sale contracts by January of the year following the canning season. The hand-to-mouth buying has forced them to resort to the storage of their output in Federal warehouses. This storage enables the canner to use his Federal warehouse receipt as collateral and has tended to lighten the financial burden entailed by this enforced carrying of his stock. Canners who through their own salesmen sell their product under their own labels have been somewhat less affected by this hand-to-mouth buying.

Number of producers and geographical distribution.—Tomato canneries are found in almost every State. They are usually located near where the crop is produced in order to obviate long railroad hauls and in order to minimize losses from decay. Some packers can tomatoes or tomato products only, whereas other packers can a great variety of fruits and vegetables.

Table 10 shows the distribution of firms canning tomatoes in the United States in 1925.

From Table 10 it will be noted that in certain States, such as Maryland, Missouri, and Virginia, there are large numbers of firms canning tomatoes only. No information is available as to the proportion of the tomato pack in the United States produced by such plants. The operation of such one-line plants is necessarily restricted to the tomato-canning season which lasts only three months of the year. In contrast with such operations, the plants which can a great many different types of fruits and vegetables as in California, often run for almost the entire year.

TABLE 10.—*Canned tomatoes: Distribution of firms canning tomatoes in the United States in 1925*

[Source: Canners' Directory, 1925]

State	Number of firms [1] canning tomatoes and other products	Number of firms [1] canning tomatoes only	State	Number of firms [1] canning tomatoes and other products	Number of firms [1] canning tomatoes only
Alabama	3	0	Nebraska	2	0
Arkansas	56	28	New Jersey	40	11
California	57	3	New Mexico	5	4
Colorado	7	0	New York	48	1
Connecticut	3	0	North Carolina	5	0
Delaware	65	22	Ohio	33	5
Florida	5	1	Oklahoma	3	1
Georgia	4	0	Oregon	10	0
Idaho	5	0	Pennsylvania	44	11
Illinois	27	9	South Carolina	3	0
Indiana	124	29	Tennessee	53	13
Iowa	13	4	Texas	7	2
Kansas	2	0	Utah	21	2
Kentucky	20	11	Vermont	1	0
Louisiana	6	0	Virginia	357	270
Maryland	315	162	Washington	5	0
Massachusetts	2	0	West Virginia	18	12
Michigan	23	1	Wisconsin	5	0
Minnesota	3	0			
Mississippi	5	0	Total	1,528	696
Missouri	123	94			

[1] Some firms operate more than 1 plant.

The perishable nature of the fresh tomato and its inability to withstand long freight hauls tend to limit the production of individual plants. The average production per canning plant in 1925 was less than 10,000 cases. Large canning organizations usually depend on many plants located in or near tomato growing sections. In California the plants have a larger capacity than the average plant in the United States.

Production of canned tomatoes in the United States.—Statistics are available for the United States production of canned tomatoes beginning with the year 1891 when 3,322,365 cases of tomatoes, each holding 24 No. 3 cans, were packed. There was little increase in the annual pack up to 1900, but thereafter the output of canned tomatoes gradually increased.

Table 11 shows the annual pack of canned tomatoes in the United States from 1891 to 1927, inclusive.

TABLE 11.—*Canned tomatoes: Annual pack in the United States, 1891 to 1927 inclusive, in cases of 24 No. 3 cans*

[Source: The Canning Trade Almanac and tomato statistics of National Canners' Association]

Year	Pack	Year	Pack
1891	3,322,365	1910	9,235,000
1892	3,223,165	1911	9,749,000
1893	4,300,443	1912	14,022,000
1894	6,456,979	1913	14,205,000
1895	4,034,780	1914	15,222,000
1896	3,383,900	1915	8,469,000
1897	3,964,355	1916	13,142,000
1898	5,652,249	1917	15,076,074
1899	7,154,923	1918	15,882,372
1900	5,495,043	1919	10,809,660
1901	4,268,211	1920	11,368,000
1902	9,282,812	1921	4,017,000
1903	10,157,615	1922	11,538,000
1904	8,516,846	1923	14,672,000
1905	5,515,516	1924	12,519,000
1906	9,074,965	1925	19,770,000
1907	12,920,185	1926	9,455,000
1908	11,479,000	1927	13,160,000
1909	10,984,000		

During the period from 1891 to 1927 there have been some marked changes in the production of canned tomatoes in certain States. For example, in 1891 the leading State was New Jersey with 950,000 cases. By 1927 the production of New Jersey had declined to 277,000 cases. Maryland, however, has maintained a position of supremacy as the leading tomato-canning State. In recent years it has packed between 30 and 40 per cent of the total production. The pack of Maryland practically determines whether the output for the entire United States will be above or below the normally expected pack. There have been wide fluctuations from year to year in the total pack of Maryland and these fluctuations appear to be greater for that State than for practically any other important canning State. These variations in Maryland are caused by the system employed in marketing the fresh tomatoes by the growers. In contrast with other States an important part of the acreage is grown for the open market. Wide fluctuations in prices from year to year have encouraged or discouraged the growing of tomatoes for the cannery.

Table 12 shows the production of canned tomatoes by States in the United States. It shows the average production for the period 1910 to 1914, inclusive, and the annual production for the years 1917 to 1927, inclusive.

TABLE 12.—*Canned tomatoes: United States production by States—average for period 1910 to 1914, inclusive, and annual production for 1917 to 1927, inclusive, in cases of 24 No. 3 cans*

[Source: National Canners' Association]

[In 1,000 cases]

State	Average, 1910–1914	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
New York	378	553	396	437	515	214	340	266	325	389	302	300
New Jersey	700	380	667	60	517	116	337	412	186	418	204	277
Pennsylvania [1]	(2)	488	441	384	680	186	644	258	150	338	118	167
Ohio	327	107	357	172	142	71	179	174	133	179	120	189
Indiana	876	398	968	876	778	530	1,312	717	1,050	1,955	900	1,131
Missouri	282	704	353	439	715	136	775	839	871	1,836	895	605
Delaware	1,260	1,381	879	189	553	176	590	1,216	803	1,272	228	827
Maryland	5,213	5,934	6,649	2,529	3,347	1,656	3,205	5,722	3,825	6,175	1,901	3,671
Virginia [3]	801	1,170	1,547	953	1,162	217	891	963	1,116	1,138	572	1,059
Kentucky [1]	(2)							59	136	275	223	253
Tennessee [1]	(2)							176	386	382	280	368
Arkansas [4]	(2)							270	768	1,168	558	678
Colorado [5]	(6)	213	306	290	218	62	168	182	180	309	183	127
Utah	(6)	513	953	594	444	132	664	584	417	1,353	235	792
California	[7] 1,930	2,603	1,790	3,052	1,773	339	1,701	2,397	1,767	1,839	2,347	2,257
Other States	622	632	576	835	524	182	732	437	406	744	389	459
United States	12,489	15,076	15,882	10,810	11,368	4,017	11,538	14,672	12,519	19,770	9,455	13,160

[1] Previous to 1923, Pennsylvania, Kentucky, and Tennessee composed one group.
[2] Included in "Other States."
[3] Includes West Virginia.
[4] Previous to 1923, included in "Other States."
[5] Includes Washington.
[6] Included in figures for California.
[7] Includes Colorado, Utah, and Washington.

Chart 2 presents graphically the annual production of canned tomatoes in the United States in terms of cases, each containing 24 No. 3 cans. A somewhat regular cycle of approximately five years in the production of canned tomatoes is indicated.

UNITED STATES IMPORTS OF CANNED TOMATOES

The United States imports of canned tomatoes come almost entirely from Italy, although there are small imports from Canada and at times from other countries. Italy has supplied more than 95 per cent of

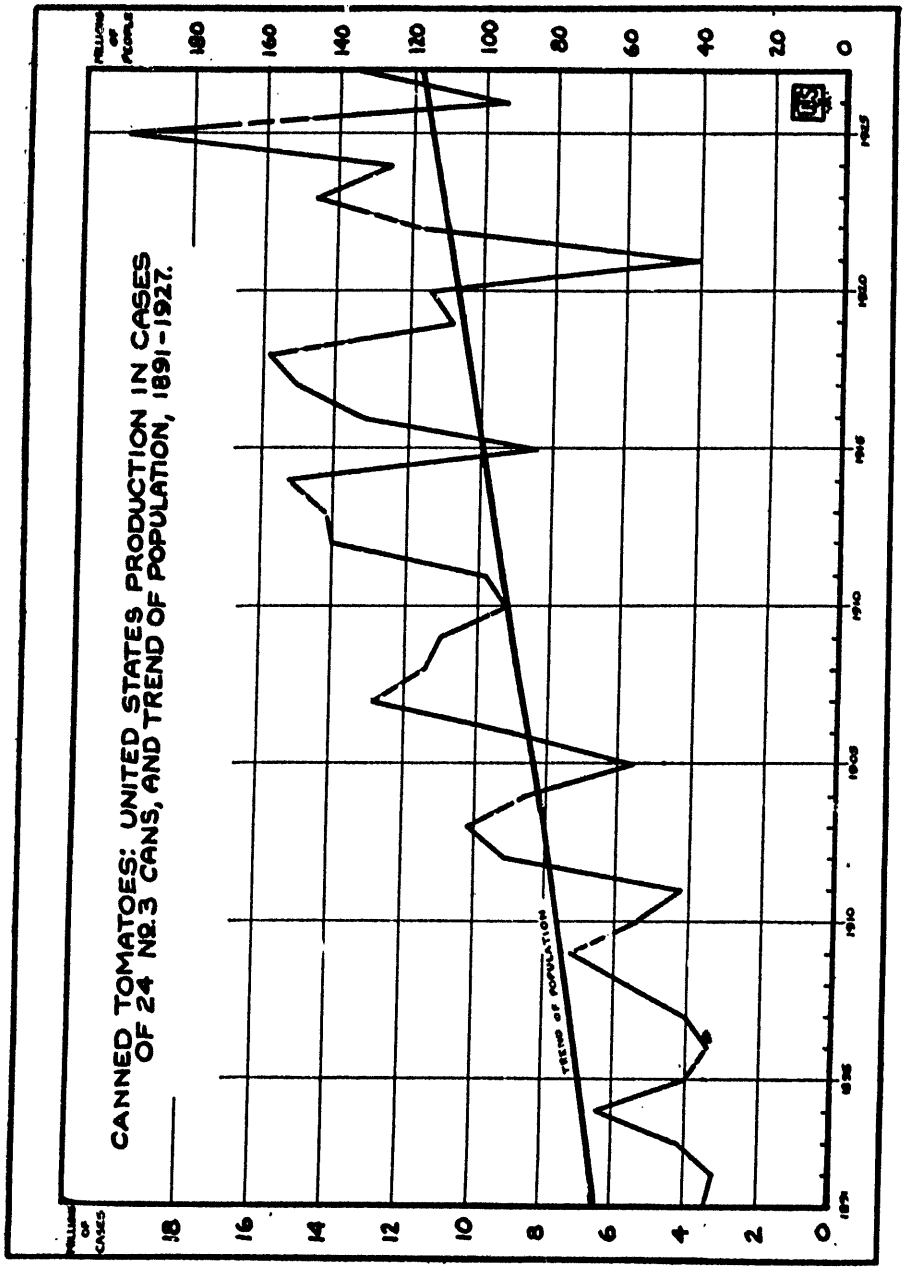

CHART 2.

the total imports to the United States since the tariff act of 1922 was enacted. Separate statistics of the imports of canned tomatoes are not available for the period prior to the enactment of the tariff act of 1922. Table 13 following gives duty-paid imports of canned tomatoes from September 22, 1922, to 1928, inclusive.

TABLE 13.—*Canned tomatoes: United States imports for consumption, September 22, 1922, to 1928, inclusive*

Year	Total imports		Imports from Italy		
	Quantity	Value	Quantity	Value	Value per pound in cents
	Pounds		*Pounds*		
1922 (Sept. 22 to Dec. 31)	11,537,284	$701,461	11,326,599	$688,285	6.077
1923	33,797,311	1,945,143	30,136,470	1,735,539	5.758
1924	55,816,661	2,585,364	55,550,185	2,573,527	4.806
1925	86,237,642	4,054,840	82,279,840	3,921,014	4.765
1926	84,749,219	4,204,900	84,444,251	4,197,441	4.971
1927	93,771,966	5,200,006	92,461,337	5,160,324	5.581
1928	93,646,672	5,236,361			

PRINCIPAL COMPETING COUNTRY

Italy has been the principal source of imports, and is, therefore, the principal competing country for the purposes of this investigation.

UNITED STATES EXPORTS OF CANNED TOMATOES

There are no data for the years before 1918 for the values of canned tomatoes exported from the United States, and the quantity of such exports have been compiled by the United States Department of Commerce only since 1922. Table 14 shows the United States exports of canned tomatoes from 1918 to 1928, inclusive. The table indicates that exports have declined since 1919. Cuba has generally been the chief purchaser. For a short time after the World War England took considerable quantities, but with the resumption of normal trade relations Italy regained its former market and now supplies not only England but most of the other importing countries.

TABLE 14.—*Canned tomatoes: United States exports of canned tomatoes, 1918–1928, inclusive*

Calendar year	Quantity		Value	Value per dozen No. 3	Value per pound
	Pounds	Cases No. 3 [1]			
					Cents
1918	(2)	(2)	$479,260	(2)	(2)
1919	(2)	(2)	2,127,896	(2)	(2)
1920	(2)	(2)	1,079,582	(2)	(2)
1921	(2)	(2)	427,594	(2)	(2)
1922	9,762,870	191,352	621,578	$1.628	6.4
1923	9,095,446	178,271	580,791	1.629	6.4
1924	6,641,554	130,174	408,009	1.570	6.1
1925	5,233,138	102,570	346,068	1.687	6.6
1926	7,265,609	142,463	472,995	1.660	6.5
1927	6,336,692	124,131	382,107	1.539	6.0
1928	5,649,266	110,770	359,690	1.624	6.4

[1] Converted to cases of 24 No. 3 cans on the basis of 51 pounds net weight per case.
[2] Not available.

UNITED STATES CONSUMPTION OF CANNED TOMATOES

Table 15 shows the domestic production, exports, imports, and estimated domestic consumption of canned tomatoes for the period 1923 to 1927, inclusive. In this table production has been converted from cases to pounds on the basis of 51 pounds net weight for each case of 24 No. 3 cans.

TABLE 15.—*Canned tomatoes: United States consumption of canned tomatoes 1923–1927*

[Thousands of pounds]

Year	Domestic production	Domestic exports	Imports for consumption	Total consumption[1]	Per cent of consumption supplied by imports
1923	748,272	9,095	33,796	772,973	4.37
1924	638,469	6,642	53,817	684,644	7.85
1925	1,008,272	5,233	86,238	1,089,277	7.92
1926	482,205	7,266	84,742	559,681	15.14
1927	671,160	6,331	93,772	758,601	12.36

[1] Total consumption is calculated by adding imports for consumption to domestic production, and subtracting domestic exports.

THE CANNED-TOMATO INDUSTRY IN ITALY

Importance of the canning industry.—At the end of 1926 nearly 600 factories were engaged in canning and preserving various fruits and vegetables in Italy. The Province of Naples led with 146 factories; Emilia was next with 144 establishments; and Sicily was third with 121 factories. Other canneries were scattered in the various Provinces. It is estimated that there is a capital investment of over 1,000,000,000 lire ($44,000,000)[1] in the canning industry in Italy. Although medium and small-sized canneries are the rule, there are also large modern plants run by joint-stock companies with capital investments of over 100,000,000 lire. Approximately 60,000 people are employed in the food-preserving industry and the wages paid annually are estimated to be 15,000,000 lire. The agricultural population engaged in raising fruits and vegetables used by the canneries exceeded 200,000 persons. The output of canneries, of which approximately two-thirds is exported, is valued at some 600,000,000 lire. The expansion of the canning industry in Italy has greatly increased the value of farm land. The selling price of a hectare of land in the heart of the tomato-growing district near Naples has risen from 3,000 lire ($234 per acre)[2] in 1900 to from 80,000 to 100,000 lire ($1,258 to $1,573 per acre)[3] in 1926. The products of the canning industry rank sixth in the list of Italian exports. (Above data obtained from report of the Instituto Nazionale per L'Esportazione).

The Italian industry has been fostered in recent years by the Royal Decree law of February 8, 1923, which established the Instituto Confederate delle Conserve alimentari (Canning Trade Institute). Under this act all canners are affiliated with the Canning Trade Institute, which is required (1) to inspect canning factories in the interest of

[1] In December, 1926, the noon-buying rate per lira was 4.435 cents.
[2] Rate of exchange 19.3 cents per lira.
[3] Average rate of exchange for 1926, 3.8894 cents per lira.

both producer and consumer (both domestic and foreign); (2) to study measures to encourage the canning industry and to expand its trade, domestic and foreign; (3) to promote direct dealings between canners and traders; and (4) to open experiment stations to improve the growing of fruits and vegetables as well as the technique of canning. The act also details provisions for regulating production and trade, for insuring hygienic conditions in the canneries, and for safeguarding the purity of the products. Among other rules is one requiring that all canners must have their products analyzed at least once a year by a State analyst. A recent regulation of the health authorities requires the medical inspection of all persons employed in the food trades. All workers must be vaccinated with antityphoid serum.

Organization of the Italian canned-tomato industry.—Information gained from the trade, from consular reports, and from the United States Department of Commerce indicates that in a general way the Italian canned-tomato industry is organized much in the same way as the American industry. Although it is reported that raw tomatoes are often hauled for long distances by railroad or truck, canneries usually are located in close proximity to growing sections. The factories are generally small, although large organizations may have a number of branches. The canned-tomato industry in Italy is organized principally for export trade rather than domestic consumption, whereas the United States tomato canners export only a small portion of their production. Canned tomatoes play no very important part in the diet of Italians, other types of manufactured tomato products being used.

Italian production of canned tomatoes.—No official data are available for the production in Italy of canned tomatoes. According to the Instituto Nazionale per L'Esportazione, the Italian production in 1925 and 1926 was 106,000,000 and 158,000,000 pounds, respectively, or the equivalent of about 2,000,000 cases in 1925 and 2,900,000 cases in 1926, on the basis of cases containing 24 No. 3 cans.

TABLE 16.—*Canned tomatoes and tomato paste: Italian exports, 1910 to 1926, inclusive*

[Source: Official Reports of the Italian Minister of Finance]

[Thousands of pounds, 000 omitted]

Year	Total exports of canned tomatoes and tomato paste	Canned tomatoes	Tomato paste	Total to United States, canned tomatoes and tomato paste
1910	69,532	.....	.....	24,935
1911	89,046	.....	.....	32,406
1912	108,205	.....	.....	44,575
1913	103,051	.....	.....	45,709
1914	83,884	.....	.....	37,516
1915	91,556	33,850	57,706	33,999
1916	61,887	21,232	40,655	15,219
1917	33,700	25,258	8,042	1,862
1918	18,141	10,070	8,071	138
1919	69,220	29,700	39,520	2,554
1920	73,784	23,152	50,632	12,535
1921	63,818	.....	.....	.....
1922	83,527	.....	.....	30,627
1923	92,198	.....	.....	31,171
1924	142,171	64,534	77,636	50,963
1925	214,372	125,308	89,064	106,679
1926	221,909	128,037	93,872	105,678

The increased production of tomato products in Italy may be measured in part by an examination of the export statistics. Table 16 shows the Italian exports of tomato products. This table covers the exports of canned tomatoes and tomato paste, which are reported for some years separately and for other years jointly. The table also shows the total exports to the United States of canned tomatoes and tomato paste from 1910 to 1926.

A COMPARISON OF THE METHODS OF PRODUCTION IN THE UNITED STATES AND ITALY

United States.—In the canning of tomatoes both hand labor and machinery are necessary. When the tomatoes arrive at the plant, they are washed and scalded (machine operations) and peeled by women who also cut out the green or decayed portions. The tomatoes are then placed in the cans either by hand or by machine. The open-filled cans are then passed through a steam exhaust, which is designed to replace the air in the cans with steam. The cans are then capped and sealed by machine. They are thereafter sterilized, labeled, and placed in cases for shipment either before or after cooling. There has been a tendency in the United States to substitute machine operations for hand labor. In recent years there have been developed automatic tomato-peeling machines. These machines are not in general use at present.

When the American tomatoes are prepared for the can, their deep cores necessitate considerable loss. Furthermore, when the domestic fruit is sliced by the workers in order to remove the core, much of the juice is liberated from the cells. As a result the American product usually appears quite liquid in the cans. In addition, there is a considerable loss, amounting to as much as 50 per cent, when the tomatoes are trimmed.

Italy.—In the large Italian factories where tomatoes are canned for export to the United States and England, the process is practically identical with that followed in the United States. Some of the leading Italian producers have bought canning machinery in the United States for use in their Italian plants. In general, however, more hand labor is employed in the Italian than in the United States industries.

The Italian tomato, because of its shape and small core, is easier to peel and handle than the American tomato. There is a much smaller loss in the peeling and in removing the core in Italy than in the United States. The commission has no data for the basis of an exact comparison of such losses, but it is estimated that they are not more than 30 per cent for the Italian industry as compared with at least 50 per cent for the United States industry.

A COMPARISON OF THE ITALIAN AND UNITED STATES CANNED TOMATOES

Packing and grading.—In the United States there are in general two methods of packing canned tomatoes: (1) In the eastern States, and westward including Arkansas and Missouri, the tomatoes, after having been peeled, are sterilized and sealed in the cans without the addition of any other ingredients except at times salt and sugar; (2) in the far western States a part of the tomato pack consists of the peeled tomatoes with the addition of a pulp made from the trimmings

obtained during the peeling of the fruit. Canners, brokers, and distributors classify canned tomatoes in a number of different grades, such as extra fancy, fancy, solid pack, extra standard, standard, standard with purée, and substandard. The commission's investigation discloses the fact that there is no very definite basis for the grading of the finished canned tomatoes. Canned tomatoes graded as extra standard in one State would, in another, be classed as fancy. A general distinction may be made between standard pack canned tomatoes and the higher grades in that as a rule the standard canned tomatoes are packed into the cans by machinery, while the higher grades are usually packed by hand.

Italian tomatoes prepared for export to the United States are reported to be all of one grade. The peeled fruit is packed by hand into the cans and has been classed by many buyers and brokers as equivalent in style to the solid pack, extra fancy, or fancy grades of the United States.

The comparability of domestic and Italian canned tomatoes presents an important problem in this investigation. As previously described, domestic tomatoes differ in appearance and size from the Italian. The Italian tomato lends itself to a solid pack because it is almost uniformly solid and has a small core, whereas the American canned tomato is more liquid. The cans when opened do not give the appearance of containing whole peeled tomatoes. The Italian tomato, somewhat higher in total solids and sugars than most domestic tomatoes, has a different flavor, although the flavor of the California tomatoes closely approximates that of the Italian product. To a smaller extent this is true of the Utah tomatoes. Witnesses before the commission testified that Americans of Italian origin who could not obtain the imported product during the war, were better satisfied with the California standard with added purée as a substitute, than with any other domestic product.

PRICES OF CANNED TOMATOES IN THE UNITED STATES AND ITALY

Published prices for all grades of domestic canned tomatoes or for Italian canned tomatoes are not available. Table 17 shows the high and low prices of Maryland standard canned tomatoes per dozen No. 3 cans, f. o. b. cannery, as quoted in New York City.

TABLE 17.—*Canned tomatoes: Prices of Maryland standard canned tomatoes, f. o. b. cannery (New York City quotations)*[1], *by months, 1924–1928*

[Source: Journal of Commerce, New York City]

[Price per dozen No. 3 cans]

Month	1924	1925	1926	1927	1928
January	$1.30	$1.50–1.55	$1.10–1.15	$1.45–1.50	$1.15
February	1.35	1.60	1.14–1.15	1.45–1.50	1.20 –1.22
March	1.45	1.60	1.10–1.15	1.42–1.45	1.20 –1.22
April	1.45	1.50–1.55	1.02–1.05	1.37–1.42	1.17 –1.20
May	1.35	1.35	1.05–1.07	1.30–1.35	1.15 –1.20
June	1.35	1.40	1.12–1.15	1.30–1.35	1.15 –1.20
July	1.35	1.40	1.15	1.32–1.40	1.15 –1.20
August	1.30	1.45	1.15	1.35–1.40	1.12½–1.20
September	1.30	1.20–1.25	1.17–1.20	1.10–1.15	1.15 –1.40
October	1.50	1.15–1.20	1.45	1.10–1.15	1.35 –1.45
November	1.50	1.10–1.15	1.40	1.07–1.10	1.40 –1.50
December	1.45	1.07–1.10	(2)	1.07–1.10	1.40 –1.45

[1] First Wednesday of each month.

[2] No quotations.

Table 18 shows the opening prices of California canned tomatoes per dozen cans of various sizes and grades, f. o. b. cannery.

TABLE 18.—*Canned tomatoes: Opening prices of California canned tomatoes, f. o. b. cannery, quoted by the California Packing Corporation, 1922–1928*

[Price per dozen]

TYPE OF PACK AND SIZE OF CAN	1922	1923	1924	1925	1926	1927	1928
Solid pack:							
No. 1	$0.95	$0.95	$1.00	$1.00	$0.95	$0.90	$0.87½
No. 2	1.10	1.15	1.20	1.20	1.15	1.15	1.12½
No. 2½	1.45	1.50	1.50	1.55	1.50	1.47½	1.45
No. 10	4.65	5.00	4.75	5.00	4.65	4.60	4.50
Tomatoes with purée:							
No. 1	.75	.75	.80	.78	72½	.67½	.65
No. 2	.90	.90	.95	.97	.87½	.85	.80
No. 2½	1.10	1.10	1.15	1.17	1.00	1.00	.97½
No. 10	3.25	3.50	3.50	3.65	3.40	3.30	3.10

Table 19 shows prices by months of California canned tomatoes in 1928.

TABLE 19.—*Canned tomatoes: Prices f. o. b. cannery in California, 1928*

[Price per dozen]

	May	September	October
Solid pack:			
No. 1	$0.90	$0.97½	$1.02½
No. 2	1.15	1.22½	1.25
No. 2½	1.47½	1.60	1.65
No. 10	4.60	5.00	5.25
Tomatoes with purée:			
No. 1	.65	.70	.80
No. 2	.80	.85	.95
No. 2½	.97½	1.05	1.15
No. 10	3.10	3.40	(1)

[1] Not quoted.

No published prices for Italian canned tomatoes in the United States markets are available. An indication of their possible range is given by the home market prices at Naples, Italy, shown in Tables 55 and 56, pages 64 and 65.

COSTS OF PRODUCTION OF CANNED TOMATOES IN THE UNITED STATES

Scope of the investigation.—The commission obtained costs of canning tomatoes in the United States in the following regions:

(1) California: (*a*) The area near Los Angeles; (*b*) the area centering around San Jose, near San Francisco; and (*c*) the area near Sacramento.

(2) Utah: One area was studied in Utah in and around Ogden.

(3) Indiana: (*a*) The producing section north of Indianapolis and (*b*) in the southern tier of the State north of the Ohio River.

(4) New York: One area was studied, in the region centering around Albion.

(5) New Jersey: One area was studied in southern New Jersey between Bridgeton and Salem.

(6) Maryland: One area was studied, centering around Easton.

The areas were selected with the idea of obtaining representative costs in the various sections of the country for plants packing tomatoes of standard, and better than standard grade.

Grades and sizes considered.—The production of canned tomatoes by grades and sizes covered in the commission's investigation is shown in Table 20.

TABLE 20.—*Canned tomatoes in cases: Production covered by commission's investigation* [1]

	Size of can					Total cases
	1	2	2½	3	10	
Grades better than standards						
New Jersey						3,611
New York						28,880
Indiana						91,614
Utah						85,952
California						756,084
Total	74,903	257,571	395,358	39,145	199,164	966,141
Standards						
New York						1,816
Maryland						127,824
Indiana						3,267
Utah						15,178
Total	30,975	87,901	14,540	4,197	10,472	148,085
Standards with purée						
Utah						43,935
California						795,539
Total	79,761	77,611	535,756		146,346	839,474

[1] To avoid disclosing individual operations the number of cases, by grades and size of can, for each State are not shown separately.

Costs of production.—Tables 21 to 23 show the detailed costs of production of canned tomatoes of the solid pack, fancy, or extra standard grades packed in No. 2, No. 2½ and No. 3 cans. The detailed costs of production for standard grade canned tomatoes and for standards with added purée are shown in the appendix, pages 55 to 71, inclusive.

All cost items, wherever possible, have been charged directly to each product. Where canned tomatoes were produced jointly with other tomato products, these joint costs, after deducting items directly chargeable to each particular product, were allocated to the different joint products in the ratio that the receipts for that product bore to the receipts for all products. The costs for the different grades and sizes were treated in a similar manner.

The costs of production of tomato pulp, as ascertained by the commission in its investigation of the cost of production of tomatoes, prepared or preserved in any manner, are not shown in this report. Imports of tomato pulp are negligible. The commission did not find it practicable to obtain the costs of production of tomato pulp from the cost records of the canners in Italy, the principal producing foreign country. The commission's information is to the effect that both in the United States and in Italy the costs of production of tomato pulp are lower than those of canned tomatoes, and that in both countries the costs of production of tomato pulp bear approximately the same proportionate relationship to those of canned tomatoes. The cost data in this report are, therefore, representative of both canned tomatoes and tomato pulp for purposes of section 315.

TABLE 21.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 2 cans of grades higher than standards. (Solid pack, extra standard, or fancy)*

[All data for 1926 except as indicated]

	New York	Indiana	Utah	Los Angeles, Calif.	Santa Clara-Alameda, Calif.	Sacramento, Calif.	Total
Production covered in commission's investigation (dozens)	21,159	59,142	60,554	66,344	226,880	81,064	515,143
Cost of production:							
Raw tomatoes at—							
(a) Price paid by canner, 1926	$0.3168	$0.2294	$0.2088	$0.2592	$0.2537	$0.2194	$0.2435
(b) On basis of cost of growing tomatoes by survey method, 1926	.3066	.2345	.3034	.2614	.2271	.2118	.2422
(c) On basis of cost of growing tomatoes by survey method, 1927	.2624	.1961	.3266	.2736	.3291	.2884	.2973
Other direct costs:							
Cans	.2589	.2657	.2780	.3000	.2963	.2967	.2896
Cases	.0618	.0588	.0475	.0610	.0649	.0508	.0593
Labels	.0257	.0223	.0308	.0180	.0328	.0373	.0299
Labor	.1286	.0992	.1156	.1893	.1931	.1543	.1640
Total other direct costs	.4750	.4460	.4719	.5683	.5871	.5391	.5428
Indirect costs:							
Labor and superintendence	.0696	.0265	.0379	.0209	.0025	.0027	.0145
Power, water, and light	.0141	.0187	.0147	.0086	.0135	.0088	.0129
Maintenance and repairs	.0218	.0097	.0314	.0106	.0146	.0182	.0164
Depreciation	.0492	.0190	.0532	.0158	.0138	.0212	.0219
Insurance	.0210	.0103	.0198	.0048	.0050	.0055	.0080
Taxes	.0075	.0022	.0076	.0029	.0024	.0062	.0038
Administrative and office expenses	.0068	.0209	.0478	.0150	.0373	.0370	.0325
Miscellaneous supplies and expenses	.0521	.0149	.0067	.0079	.0041	.0093	.0090
Total indirect costs	.2421	.1222	.2191	.0865	.0932	.1089	.1190
Total cost of production f. o. b. plant, including raw tomatoes at—							
(a) Price paid by canner, 1926	1.0339	.7976	.8998	.9140	.9340	.8674	.9053
(b) Cost of growing tomatoes by survey method, 1926	1.0237	.8027	.9944	.9162	.9074	.8598	.9040
(c) Cost of growing tomatoes by survey method, 1927	.9795	.7643	1.0176	.9284	1.0094	.9364	.9591

TABLE 22.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 2½ cans of grades higher than standards. (Solid pack, extra standard, or fancy)*

[All data for 1926, except as indicated]

	Northern Indiana	Utah	Los Angeles, Calif.	Santa Clara-Alameda, Calif.	Sacramento, Calif.	Total [1]
Production covered in commission's investigation (dozens)						790,716
Cost of production:						
Raw tomatoes at—						
(a) Price paid by canner, 1926	$0.3527	$0.3072	$0.3910	$0.3655	$0.4189	$0.3716
(b) On basis of cost of growing tomatoes by survey method, 1926	.3788	.4388	.3827	.3293	.3958	.3582
(c) On basis of cost of growing tomatoes by survey method, 1927	.2661	.4726	.4007	.4780	.5396	.4705
Other direct costs—						
Cans	.3242	.3432	.3582	.3525	.3463	.3509
Cases	.1000	.0642	.0646	.0795	.0788	.0759
Labels	.0300	.0427	.0238	.0455	.0456	.0418
Labor	.1314	.1913	.2494	.2197	.2539	.2245
Total other direct costs	.5856	.6414	.6960	.6972	.7246	.6931
Indirect costs:						
Labor and superintendence	.0718	.0275	.0406	.0102	.0041	.0168
Power, water, and light	.0244	.0278	.0179	.0209	.0123	.0199
Maintenance and repairs	.0203	.0288	.0208	.0269	.0376	.0276
Depreciation	.0193	.0849	.0281	.0286	.0470	.0365
Insurance	.0226	.0232	.0098	.0077	.0074	.0098
Taxes	.0014	.0172	.0061	.0060	.0128	.0080
Administrative and office expenses	.0493	.0543	.0205	.0475	.0555	.0451
Miscellaneous supplies and expenses	.0089	.0342	.0122	.0085	.0145	.0126
Total indirect costs	.2180	.2979	.1560	.1563	.1912	.1763
Total cost of production, f. o. b. plant, including raw tomatoes at—						
(a) Price paid by canner, 1926	1.1563	1.2465	1.2430	1.2190	1.3347	1.2410
(b) Cost of growing tomatoes by survey method, 1926	1.1824	1.3781	1.2347	1.1828	1.3116	1.2276
(c) Cost of growing tomatoes by survey method, 1927	1.0697	1.4119	1.2527	1.3315	1.4554	1.3399

[1] This includes costs for plants located in New York; northern Indiana; Utah; Los Angeles, Calif.; Santa Clara and Alameda, Calif.; Sacramento, Calif. To avoid disclosing individual operations, costs for New York district are not shown separately.

TABLE 23.—*Canned tomatoes: Cost of production in the United States of one dozen No. 3 cans of grades higher than standards. (Solid pack, extra standard, or fancy)*

[All data for 1926 except as indicated]

	New York-New Jersey	Indiana	Total United States [1]
Production covered in commission's investigation (dozens)			78,290
Cost of production:			
Raw tomatoes at—			
(a) Price paid by canners, 1926	$0.4096	$0.3805	$0.3905
(b) On basis of cost of growing tomatoes by survey method, 1926	.4251	.4006	.4097
(c) On basis of cost of growing tomatoes by survey method, 1927	.3645	.3399	.3498
Other direct costs:			
Cans	.3496	.3509	.3510
Cases	.0898	.0841	.0859
Labels	.0303	.0276	.0286
Labor	.2052	.1855	.1925
Total other direct costs	.6749	.6481	.6580

[1] This includes costs for plants located in New York, New Jersey, Indiana, and Utah.

TABLE 23.—*Canned tomatoes: Cost of production in the United States of one dozen No. 3 cans of grades higher than standards. (Solid pack, extra standard, or fancy)*—Continued

	New York-New Jersey	Indiana	Total United States [1]
Indirect costs:			
Labor and superintendence	$0.0910	$0.0522	$0.0655
Power, water, and light	.0159	.0452	.0351
Maintenance and repairs	.0301	.0260	.0275
Depreciation	.0666	.0649	.0660
Insurance	.0280	.0301	.0332
Taxes	.0223	.0044	.0108
Administrative and office expenses	.0238	.0427	.0368
Miscellaneous supplies and expenses	.0695	.0397	.0502
Total indirect costs	.3472	.3112	.3251
Total cost of production f. o. b. plant, including raw tomatoes at:			
(a) Price paid by canners, 1926	1.4317	1.3398	1.3736
(b) Cost of growing tomatoes by survey method, 1926	1.4172	1.3599	1.3928
(c) Cost of growing tomatoes by survey method, 1927	1.3866	1.2992	1.3329

COST OF PRODUCTION OF CANNED TOMATOES IN ITALY

Analysis of the invoices of canned tomatoes shipped to the United States from Italy.—The commission did not find it practicable to obtain the costs of producing canned tomatoes from the cost records of the canners in Italy. An analysis was made of consular invoices of shipments of canned tomatoes from Italy to New York for the period, September, 1926, to August, 1927, inclusive. This analysis covered 76.40 per cent of the imports of Italian canned tomatoes entered at New York during this period, or 57.55 per cent of the total imports for consumption into the United States. The invoice data were checked back to the records of the importers.

Italian canned tomatoes as shipped to the United States are packed in cases of two sizes: (1) 24 No. 3's (each No. 3 can contains approximately 2 pounds 4 ounces net); (2) 48 No. 2's (each can contains approximately 1 pound 2 ounces net). In Table 24 a summary is shown of the quantities of canned tomatoes covered in the invoice analysis made in New York by the commission's agents. Consular invoices and the entry documents for 566,194 cases of No. 3's and 277,491 cases of No. 2's were analyzed. For both sizes shipments from Naples, Italy, comprised about 90 per cent. A small amount, approximately 5 per cent, was consigned.

TABLE 24.—*Canned tomatoes: Total number of cases of Italian canned tomatoes covered in analysis of invoices of entries at New York, N. Y., September, 1926, to August, 1927, inclusive*

Cases of 24 No. 3 cans	Number of cases	Cases of 48 No. 2 cans	Number of cases
Purchased:		Purchased:	
From Naples (analyzed herewith)	492,691	From Naples (analyzed herewith)	250,007
From Bari	29,089	From Bari	9,380
From Genoa	9,516	From Genoa	1,334
From Leghorn	6,200	From Leghorn	1,000
		From Venice	32
Total purchased	537,496	Total purchased	261,753
Consigned: Total	28,698	Consigned: Total	15,738
Total cases No. 3 entered	566,194	Total cases No. 2 entered	277,491

The commission's analysis of the invoices of importations of Italian canned tomatoes at New York is presented for the two sizes separately. The analysis does not include shipments of canned tomatoes which came from Italian cities other than Naples. Furthermore, no consignments are included, actual purchases only being shown. The following tables give a summary of the data as obtained by the commission in its analyses of the invoices, and give in addition to the total number of cases entered each month from September, 1926, to August, 1927, the invoices which were examined by the commission, the price f. o. b. Naples, the various charges included in that price, the ocean freight, marine insurance, and the net entered price. The value on which duty was collected bears no relation to the other items given in the tables.

Tables 25 and 26 show summaries of the analysis of invoices of shipments of canned tomatoes from Naples, Italy, to New York, N. Y., for the period September, 1926, to August, 1927, inclusive, in cases of 24 No. 3 cans and in cases of 48 No. 2 cans, respectively.

TABLE 25.—*Canned tomatoes: Summary of analysis of invoices of shipments of canned tomatoes in cases of 24 No. 3 cans, from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

Year and month	Total cases of No. 3's covered in analysis	Weighted average per case of 24 No. 3 cans [1]								
		Price f. o. b. Naples	Included in f. o. b. price				Ocean freight	Marine insurance	Total c. i. f. price at New York	Value on which duty was collected
			Cases and packing	Loading and shipping	Inland freight in Italy	All other charges				
1926										
September	50,655	$2.533	$0.183	$0.039	$0.029	$0.064	$0.174	$0.018	$2.725	$2.649
October	43,942	2.516	.248	.048	.049	.024	.173	.011	2.700	2.688
November	107,964	2.630	.190	.036	.062	.114	.177	.013	2.820	2.742
December	74,808	2.629	.208	.040	.067	.050	.178	.013	2.820	2.831
1927										
January	57,010	2.760	.209	.051	.075	.027	.175	.033	2.968	2.906
February	39,618	2.853	.208	.046	.061	.....	.190	.013	3.056	3.070
March	26,938	2.844	.211	.044	.046	.071	.201	.014	3.059	3.114
April	30,747	2.674	.227	.026	.046	.....	.193	.011	2.878	3.251
May	14,300	2.948	.247	.043	.046	.....	.197	.015	3.160	3.320
June	11,540	2.952	.268	.048	.032	.....	.194	.015	3.161	3.211
July	17,464	3.000	.282	.060	.064	.....	.205	.019	3.224	3.198
August	17,705	3.054	.310	.074	.062	.066	.211	.013	3.278	3.168
Total and weighted average—										
Per case	402,691	2.699	.216	.043	.059	.042	.183	.015	2.897	2.897
Per dozen	985,382	1.3495	.108	.0215	.0295	.021	.0915	.0075	1.4485	1.4485

[1] The numbers of cases and the total values on which the weighted averages per case are based, are shown in Table 55, p. 64, Appendix.

TABLE 26.—*Canned tomatoes: Summary of analysis of invoices of shipments of canned tomatoes in cases of 48 No. 2 cans, from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

Year and month	Total cases of No. 2's covered in analysis	Weighted average per case of 48 No. 2 cans [1]								
		Price f. o. b. Naples	Included in f. o. b. price				Ocean freight	Marine insurance	Total c. i. f. price at New York	Value on which duty was collected
			Cases and packing	Loading and shipping	Inland freight in Italy	All other charges				
1926										
September	28,609	$3.202	$0.173	$0.036	$0.037	$0.078	$0.173	$0.018	$3.393	$3.340
October	21,634	3.105	.166	.046	.052	.018	.179	.013	3.297	3.280
November	47,905	3.198	.192	.039	.069	.130	.176	.013	3.387	3.408
December	41,861	3.225	.208	.038	.079	.053	.179	.013	3.417	3.613
1927										
January	26,240	3.448	.221	.044	.073	.022	.179	.012	3.639	3.728
February	17,309	3.659	.206	.043	.054	------	.189	.014	3.862	3.863
March	14,032	3.539	.199	.039	.022	.071	.189	.013	3.741	3.835
April	16,077	3.401	.214	.040	.050	------	.194	.012	3.607	3.956
May	6,000	4.057	.248	.050	.085	------	.197	.015	4.269	4.249
June	6,875	3.908	.256	.058	.043	------	.204	.015	4.127	4.122
July	11,555	3.859	.270	.057	.071	------	.195	.018	4.072	4.130
August	11,910	3.935	.275	.057	.110	.071	.215	.014	4.164	4.089
Total and weighted average—										
Per case	250,007	3.389	.207	.042	.070	.037	.184	.014	3.587	3.662
Per dozen	1,000,028	.847	.052	.011	.017	.009	.046	.004	.897	.9145

[1] The numbers of the cases and the total values on which the weighted average per case are based, are shown in Table 56, p. 65, Appendix.

These tables disclose that the value of canned tomatoes on which duty was collected was consistently greater than the f. o. b. price paid at Naples. The customs appraisers at New York regard Naples as a principal home market in Italy. All importations of canned tomatoes from Naples are held dutiable at the foreign value at the time of exportation. Considerable quantities of canned tomatoes from Italy are sold to United States buyers for future delivery Importers entering canned tomatoes at New York show in the necessary documents not only the price paid, but the foreign value at the time of exportation. To assist importers of canned tomatoes the Italian Chamber of Commerce in New York, twice each month holds meetings of importers, and issues bulletins giving their quotations for the foreign value in Italy of canned tomatoes for the period. Tables 55 and 56 in the Appendix, show the wholesale foreign value of Italian canned tomatoes, f. o. b. Italian ports, per case of 24 No. 3 cans, and 48 No. 2 cans, repectively.

COMPETITIVE CONDITIONS

Domestic canned tomatoes in the United States meet three important direct forms of competition: (1) Competition with fresh tomatoes both domestic and imported; (2) competition with other tomato products such as tomato soup, tomato catsup, tomato pulp, and tomato paste; and (3) competition with imported canned tomatoes from Italy and other countries.

Competition from fresh tomatoes.—Manufacturers of canned tomatoes and distributors regard the fall, winter, and spring as the important seasons in which canned tomatoes are sold. The peak of the marketing season is in the winter, when there are few fresh vegetables available. The production of canned tomatoes, like that of other canned vegetables and fruits, has increased in order to supply the consuming market during those months in which fresh vegetables are difficult to obtain or are high in price. The development of transportation facilities in the United States, which originally aided the canning industry in establishing production near the sources of the raw material although far removed from consuming centers, has of late brought fresh tomatoes in more intense competition with canned tomatoes. There has been a steady growth in the production of fresh tomatoes in the South for winter and early spring use in the consuming centers of the United States. Fresh tomatoes from Florida, Mississippi, Texas, southern California, and imported tomatoes from Mexico and Cuba supply important markets throughout the United States during the winter months. These shipments undoubtedly have affected the demand for canned tomatoes. In the crop year 1926–27, fresh tomatoes grown for the early market in the United States amounted to more than 322,000,000 pounds. The imports of fresh tomatoes for consumption from Mexico, Cuba, and the British West Indies amounted to 124,439,000 pounds. As exports of such early fresh tomatoes from the United States amounted to approximately 31,000,000 pounds, approximately 416,000,000 pounds were consumed in this country. In addition to these early tomatoes, there is a large production of intermediate and late tomatoes marketed from June to October. This late fresh tomato industry, which is older than the canned tomato industry, furnishes no new competition with canned tomatoes, as the canning industry is now established.

Just as after the Civil War the taste for tomatoes was stimulated by the greater use of the canned product, there has been a large increase in the consumption of fresh tomatoes during the winter months because of the stimulation to tomato consumption furnished by the World War. The use of fresh tomatoes in the winter months has probably affected the production and marketing of canned tomatoes. The production of canned tomatoes has not increased since the return to the more normal agricultural conditions of the last few years. Even in years when the pack has been relatively short, prices of canned tomatoes have not responded materially. The number of pounds of winter fresh tomatoes, which have been substituted for canned tomatoes, can be roughly approximated. In this approximation it is assumed that 20 cases of 24 No. 3 cans are the equivalent of 1 ton of fresh fruit. The domestic consumption of early fresh tomatoes amounted to 200,000 tons in 1926–27. This would be the equivalent of approximately 4,000,000 cases of No. 3 cans, as compared with the production in 1926 of 9,455,000 cases of canned tomatoes, and in 1927 of 13,160,000 cases.

Fresh tomatoes for winter use, once regarded as a luxury, are now commonly sold in practically every region of the United States. Prices in recent years have tended to decline because of the increased production and imports. The proportion of all fresh vegetables and fruits in the diet of the American people has increased. Thus, the

domestic canned tomato can be said to meet strong competition from Southern and Mexican fresh tomatoes during the winter season when it formerly had the market more or less to itself.

Competition with tomato soup and other tomato products.—The manufacture of tomato soup and other soups, in which tomatoes are used, is steadily increasing in the United States. This is also true of the manufacture of tomato catsup and of tomato pulp, or puree. Canned tomatoes are used in the household for soups, stewed tomatoes, and for tomato sauce to be used for gravies. The increasing production and sale of canned-tomato soup in the United States is accompanying the decline in the sale of canned tomatoes as such. The attempt in this country to diminish household work has stimulated the sale of the more highly manufactured food such as soups, catsups, and chili sauce. Tomato pulp or purée and tomato paste, put up in small cans, makes available for the housewife, who desires to make her own soup and sauces, a more concentrated tomato product.

Table 27 shows the production of canned soups and tomato pulp in the United States during recent census years.

TABLE 27.—*Canned soups and tomato pulp: United States production*

	1919		1921	
	Quantity	Value	Quantity	Value
	Cases		*Cases*	
Canned soup [1]	5,844,821	$11,857,717	6,861,850	$13,584,448
Tomato pulp [2]	1,518,110	3,819,340	(3)	(3)
	1923		1925	
Canned soup [1]	14,071,293	$26,951,346	(3)	(3)
Tomato pulp [2]	2,005,238	3,870,445	2,717,576	$6,639,275

[1] 48 No. 1 cans to case. A No. 1 can contains approximately 10 ounces net.
[2] 6 No. 10 cans to case. A No. 10 can contains approximately 6 pounds, 10 ounces net.
[3] Not reported separately.

Competition with imported canned tomatoes from Italy and other countries.—Imports of canned tomatoes come almost entirely from Italy, although there are some minor quantities from the Ontario section of Canada. Imports of Italian canned tomatoes come largely to New York City, where they meet the domestic product in competition. Italian canned tomatoes are almost entirely used by people of Italian descent or by those who have come from countries bordering on the Mediterranean. The sale of Italian canned tomatoes to our native population is small, although it is reported to have increased in recent years. As a general rule, the Italian canned tomato sells at a somewhat higher retail price than that charged for the domestic canned tomato. The price paid in retail stores for the imported article is considerably higher than that paid for the so-called "standard" domestic canned tomato. Italian canned tomatoes are packed in No. 3 cans, which contain on the average 2 pounds 4 ounces net, as compared with the domestic No. 3 cans, which contain from 2 pounds to 2 pounds 2 ounces.

During and after the war, when imports from Italy were negligible, distributors in New York City sold to people of Italian descent canned tomatoes with puree from California. With the resumption of imports from Italy the sales to Italians in New York City of California canned tomatoes with puree declined and are now practically negligible. Other domestic canned tomatoes, such as those from Maryland, were also sold to the domestic Italian trade, but in relatively small quantities as compared with the California product. It was estimated by some of the large wholesale distributors in New York City that as many as 1,000,000 cases of California canned tomatoes were sold to Italian residents in and around New York City during the years when the imported article was not available.

The substitution of the Italian canned tomato for the domestic product after the war affected the marketing of canned tomatoes in the United States. California tomatoes during war years and directly after the war found their most important market in California and their second most important market in New York City. Utah supplied neighboring States and also shipped an important part of its production to the Northwestern States of Washington and Oregon. Indiana shipped considerable quantities to Illinois—principally Chicago—West Virginia, Kentucky, and to other States in the Mississippi Valley. The decline of the sale of California canned tomatoes in New York was compensated for by successful attempts to market them in the Northwestern States where Utah canned tomatoes were forced out. As a result Utah tomatoes have begun to penetrate into the Mississippi Valley States and have reached as far east as West Virginia. This, in turn, has furnished new competition to the Indiana canners in markets which they had previously controlled.

TRANSPORTATION

Canned tomatoes are consumed all over the United States. New York City is, however, the most important single market. Prices in the New York market are usually a base for the determination of the prices in other consuming centers. New York receives canned tomatoes from many producing sections, principally from those of New York, New Jersey, Maryland, Pennsylvania, Indiana, and California.

United States imports for consumption by ports.—Table 28 shows that there were entered in New York during the years 1926 and 1927, 74.05 and 69.89 per cent, respectively, of the duty-paid imports into the United States.

Distribution of domestic canned tomatoes of grade higher than standard.—The commission obtained only partial distribution data for California canned tomatoes. These data indicate that approximately 50 per cent is consumed in California, and that the remainder is shipped mainly to the northwestern States and to points in the East. Fairly complete distribution data were obtained for canned tomatoes of the fancy or extra standard grade produced in Indiana, New York, New Jersey, and Utah. Table 29 is a summary of the shipments covered by the commission's investigation in those States.

TABLE 28.—*Canned tomatoes: United States imports for consumption by ports of entry, 1926 and 1927*

Customs district	1926		1927	
	Quantity	Value	Quantity	Value
	Pounds		*Pounds*	
New York	62,606,139	$3,118,118	65,536,182	$3,636,599
Massachusetts	11,944,032	568,393	11,256,920	535,508
Philadelphia	4,941,143	260,052	6,532,957	403,256
Chicago	2,264,634	120,470	4,243,782	263,204
Porto Rico	52,606	2,471	1,761	143
Maryland	137,976	5,501	79,410	3,318
Pittsburgh	557,639	28,091	2,530,552	104,141
Connecticut	677,860	38,952	372,291	20,750
Maine and New Hampshire	168	18	25	4
New Orleans	862,662	38,300	1,470,172	86,826
San Francisco	12,160	806	911	162
Michigan	29,355	1,261	100,573	6,069
Washington	7,200	299	894	82
Alaska	780	46	530	36
Florida	195,500	8,808	223,100	11,552
Duluth and Superior	156	19	76	11
Buffalo	60,604	2,718	72,815	3,603
St. Louis	61,891	2,889	217,320	11,670
Rochester	89,850	4,819	129,350	7,133
Ohio	19,936	2,013	224,874	14,540
Los Angeles	26,928	856	82,600	4,009
Wisconsin			8	3
Vermont			57,100	399
Rhode Island			626,243	36,478
Galveston			11,520	510
Total	[1] 84,549,219	4,204,900	[2] 93,771,966	5,200,006

[1] This does not include 20 pounds valued at $2 from Cuba.
[2] This does not include 30,750 pounds valued at $2,030 from Cuba.

TABLE 29.—*Canned tomatoes: Shipments of fancy and extra standard canned tomatoes—New York, New Jersey, Indiana, and Utah, 1926*

[In cases of 21 cans]

State (destination)	New York and New Jersey			Indiana			Utah	
	No. 2	No. 2½	No. 3	No. 2	No. 2½	No. 3	No. 2	No. 2½
New York	2,926	1,207	4,184					
Massachusetts	2,976	133	5,725	4,000		2,500		
Connecticut	2,457	58		2,029		441		
Rhode Island	91	352	3					
Vermont		5						
Maine			2,494					
New Hampshire			1,150					
Minnesota				2,166	1,000		852	3,000
North Dakota				666	500		850	3,000
South Dakota				2,820	771	2,247	850	2,906
Illinois				5,580	677	4,883		
Indiana				2,788	339	3,140		
Ohio				538	66	561		
Wisconsin				2,000		2,734		
Michigan						650		
Idaho							2,552	8,905
Montana							12,999	13,633
Wyoming							1,931	5,343
Iowa							1,000	12,071
Nebraska							931	13,415
Utah							11,378	10,071
Total number of cases	8,450	1,755	13,556	22,587	3,353	17,156	33,343	72,344

Transportation and other charges for Italian canned tomatoes.—As shown in Tables 25 and 26, pages 32 and 33, inland transportation, and other local charges in Italy incurred in shipping canned tomatoes to the United States, are included in the f. o. b. price at Naples. These tables also give the ocean freight charge and marine insurance to New York per case of 24 No. 3 cans and 48 No. 2 cans, respectively. For the period September, 1926, to August, 1927, the weighted average for ocean freight and marine insurance was as follows:

	Case of 24 No. 3 cans	Case of 48 No. 2 cans
Ocean freight to New York	$0.183	$0.184
Marine insurance to New York	.015	.014
Total	.198	.198

The weighted average of the ocean freight and insurance to New York for the importations analyzed by the commission was $0.0997 per dozen cans.

Transportation for United States canned tomatoes.—Canned tomatoes are usually shipped packed either in wooden cases or fiber boxes. Wooden boxes weigh approximately 5 pounds more than fiber boxes. The shipping weight of domestic canned tomatoes packed in No. 2, 2½, or 3 cans is as follows:

	Wooden boxes	Fiber boxes
	Pounds	*Pounds*
24 No. 2 cans per case	43	38
24 No. 2½ cans per case	59	54
24 No. 3 cans per case	68	63

Freight rates from canning points to New York on the basis of 100 pounds gross shipping weight are shown in the Appendix in Table 61, page 70.

The average transportation charge for domestic canned tomatoes of the solid pack, fancy, or extra standard grade, to New York, weighted on the basis of the production covered in the commission's investigation, is $0.1484 per dozen cans. This transportation charge would be practically the same if it were weighted on the basis of actual shipments to New York.

COMPARISON OF COSTS OF PRODUCTION OF DOMESTIC AND ITALIAN CANNED TOMATOES

The commission's investigation of the grades of domestic and imported canned tomatoes indicates that imported Italian canned tomatoes are practically all of one grade, but that according to the classification commonly employed by domestic canners and buyers, they may be classed or graded as solid, fancy, or extra standard pack. At the public hearing there was agreement that in style of pack the imports were comparable in grade to domestic higher grades of canned tomatoes, such as the California and Utah solid pack, and the eastern extra standards and fancys.

The commission obtained the cost of production of canned tomatoes in various size cans and of various grades, but has used in the final comparison the cost of production of solid, fancy, or extra standard domestic canned tomatoes packed in No. 2, No. 2½, and No. 3 cans—the nearest in net content to the two sizes of the imported. A slight adjustment has been made in the costs for the differences in the net content of the domestic and the imported cans, by determining the weighted average net content per dozen cans of the domestic production of the higher grades, and by adjusting it to the weighted average net content per dozen of the imports as covered in the analysis of invoices of entries. The weighted average net content of a dozen cans of the domestic was 18.70 pounds, and of the imported, 20.20 pounds; thus the adjustment called for an increase in the domestic costs of 8.02 per cent.

The domestic cost of transportation of a dozen cans, with a net content as above, was arrived at by determining the weighted average cost of transporting to New York, employing water rates by way of the Panama Canal from California, and rail rates from other points.

Table 30 shows a comparison of the domestic costs of production of canned tomatoes, including transportation to New York, with the total cost of Italian canned tomatoes landed at New York, the cost of the Italian canned tomatoes being calculated by assuming a 10 per cent profit in the invoice price of imports. (See transcript of minutes of public hearings, p. 456.)

TABLE 30.—*Canned tomatoes: Summary of costs of production in the United States and Italy*

[Per dozen cans]

	United States weighted average of No. 2, 2½, and 3 cans graded as solid, fancy, or extra standard	Italy weighted average of No. 2 and No. 3 cans
Total costs at cannery on basis of—		
Price paid by canner for tomatoes, 1926	$1.2137	[1] $0.9967
Farm cost of production of tomatoes, 1926	1.2060	
Farm cost of production of tomatoes, 1927	1.2939	
Simple average of farm cost of production of tomatoes, 1926–27	1.2500	
Transportation to New York (includes marine insurance for Italian)	.1484	.0750
Total costs at New York on basis of—		
Price paid by canner for tomatoes, 1926	1.3621	1.0717
Farm cost of production of tomatoes, 1926	1.3544	
Farm cost of production of tomatoes, 1927	1.4423	
Simple average of farm cost of production of tomatoes, 1926–27	1.3984	
Amount by which domestic costs at New York exceed Italian:		
Costs at New York, on basis of—		
Price paid by canner for tomatoes, 1926	$0.2904	
Farm cost of production of tomatoes, 1926	.2827	
Farm cost of production of tomatoes, 1927	.3706	
Simple average of farm cost of production of tomatoes, 1926–27	.3287	
Foreign value	----------	1.0964
Amount of ad valorem duty necessary to equalize differences in costs of production on basis of—	*Per cent*	
Price paid by canner for tomatoes, 1926	27.09	
Farm cost of production of tomatoes, 1926	26.38	
Farm cost of production of tomatoes, 1927	34.58	
Simple average of farm cost of production of tomatoes, 1926–27	30.67	

[1] Calculated by assuming a 10 per cent profit in the invoice price of imports. (See Transcript of Minutes of Public Hearings, p. 456.)

SUMMARY FOR TOMATOES, PREPARED OR PRESERVED IN ANY MANNER

Findings of fact to the following effect are, in the judgment of the United States Tariff Commission, warranted by the evidence collected in the commission's investigation of the costs of production of canned tomatoes, summarized in the foregoing report:

1. Italy is the principal competing country.
2. New York is the principal market in the United States for canned tomatoes.
3. The duty on canned tomatoes of 15 per centum ad valorem prescribed in paragraph 770 of Title I of the tariff act of 1922, does not equalize the differences in costs of production of canned tomatoes in the United States and in the said principal competing country.
4. The weighted average cost of production in the United States of canned tomatoes of solid pack, fancy, or extra standard grade, including transportation to New York, based upon the price paid by the canners for tomatoes in 1926, is $1.36 per dozen cans; based on the simple average of the domestic farm costs of production of tomatoes in 1926 and 1927, it is $1.40 per dozen cans. The transportation charge for domestic canned tomatoes to New York is practically the same whether it is weighted on the basis of the production covered by the commission's investigation or is weighted on the basis of shipments which actually moved to New York City.
5. The weighted average cost of production of like or similar canned tomatoes imported into the United States from said principal competing country, including transportation to New York, is $1.07 per dozen cans.
6. The weighted average cost of production of one dozen cans of tomatoes in the United States, including transportation to New York, exceeds the weighted average cost of one dozen cans of canned tomatoes imported from said principal competing country, including transportation to New York, is $0.29, on the basis of the price paid by the domestic canner for tomatoes in 1926; and by $0.33 on the basis of the simple average of domestic farm costs of production of tomatoes in 1926 and 1927.
7. The rate of duty as shown by said differences in costs of production of tomatoes, prepared or preserved in any manner, in the United States and in said principal competing country, including transportation to New York, necessary to equalize said differences, within the limit provided in said section 315, is the rate of 22½ per cent ad valorem.

Respectfully submitted.

THOMAS O. MARVIN,
Chairman.
ALFRED P. DENNIS,
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FRANK CLARK,
Commissioners.

PART III

Tomato Paste

DESCRIPTION

Tomato paste is the concentrated product obtained by evaporating or drying tomatoes from which the seeds, skins, and cores have been removed by straining. Water constitutes about 95 per cent of the raw tomato. Normally, about 5 pounds of the fresh fruit are required for 1 pound of paste. In the process of manufacture, sodium bicarbonate may be added to neutralize a portion of the acidity. Salt and at times basil leaf are also ingredients.

Both in Italy and in the United States the paste is prepared in a number of different degrees of concentration. The United States Standards Committee [1] has not formally defined tomato paste but has announced tentatively the following designations for the products of different degrees of concentration:

Total tomato solids

	Per cent
Tomato pulp	8. 37–12. 00
Tomato puree	12. 00–16. 00
Tomato sauce (salsa)	16. 00–22. 00
Tomato paste (pasta)	22. 00–35. 00
Heavy tomato paste (concentrato)	35 or more.

Both in Italy and the United States tomato paste is usually packed 200 cans to the case and each can normally has a net content of about 6½ ounces.

METHODS OF PRODUCTION

In the tomato-paste industry machine processes are supplemented by some use of unskilled female labor. Methods of production usually employed in the United States are similar to those used in Italy in the manufacture of that part of the Italian production which is exported to the United States. In general, all methods aim to produce a smooth paste, free from skins, seeds, and cores, and from which the water content is not readily separated.

Tomato paste may be manufactured from: (1) Whole tomatoes, (2) the by-product peelings and trimmings obtained in the canning of peeled tomatoes, and (3) tomato pulp. In manufacturing tomato paste by method 1, i. e., using the whole tomatoes as raw material, the tomatoes are thoroughly washed by passing them through tanks of water or by subjecting them to a strong spray of water. They are then sorted by hand to remove decayed fruit. Thereafter, they are reduced to a pulp in a cyclone.[2] From the cyclone the pulp goes to cooking tanks or kettles, either open or vacuum, where it is concentrated, usually by steam heat, until it has reached the desired consistency, which may range from 15 per cent to over 40 per cent total solids. In some plants the paste is taken from the tanks or kettles through finishing machines (screens with fine perforations) in order to give it as smooth an appearance as possible. The product

[1] U. S. Department of Agriculture.

[2] A cyclone is a machine which beats the tomatoes to pieces, forces the pulp through a wire screen, and removes seeds, skins, and cores.

is then run into cans, which are capped, sealed, and sterilized. Finally the cans are labeled and either stored in bulk or packed in shipping cases.

In manufacturing tomato paste by method 2 the small and misshapen fruit, sorted out from the tomato-canning operations, is ground up with the trimmings from the tomatoes used for canning. Paste made from these raw materials so closely resembles that made from whole tomatoes that it is not possible to distinguish between them readily.

The third method of manufacture differs from the first method in that the pulp is canned in large containers during the rush season and cooked down to paste later, usually during the winter and spring.

Cost data were obtained by the commission for all three methods of producing tomato paste.

In general, similar methods of manufacture are employed in the United States and Italy. Most of the paste is made during the tomato season from whole tomatoes in both countries. The tomatoes are sorted by hand in both countries; in the United States by women and in Italy by women and girls or children. Substantially the same machinery is used in both countries for concentration, sterilization, and packing. In America it is customary both to label the cans and to make the boxes by machinery. Both of these processes may be largely performed by hand in Italy because of the cheapness of labor, especially of family labor.

USES

Tomato paste, an important item in the diet of Italians, is also used to some extent by other Mediterranean peoples. It is used by them chiefly in the preparation of sauces and soups. Its use is similar to that of fresh or canned tomatoes, which are substitutes and competing products.

Although tomato paste in the United States undoubtedly competes in some measure with fresh tomatoes, canned tomatoes, tomato catsup, and tomato pulp, it in great measure fills a field distinctly its own, because tomato paste is used for certain particular purposes by the consumer. Users of tomato paste believe that it is more economical for sauce preparation than tomato pulp, canned tomatoes, or fresh tomatoes, because of its concentration.

In Italy tomato paste is used more extensively than canned tomatoes. In addition to canned tomato paste, a sun-dried variety is used in Italian households.

HISTORY OF THE INDUSTRY IN THE UNITED STATES

The tomato-paste industry of the United States is of recent origin. Although no records of production prior to 1919 are available, commercial opinion indicates that only small quantities were manufactured prior to the World War. The development of the domestic industry is largely to be ascribed to two factors—(1) the continued rejection for admission to the United States of large quantities of Italian tomato paste by the United States Bureau of Chemistry under the terms of the food and drugs act of June 30, 1906; (2) the cutting off of importations from Italy during the war and subsequent embargoes placed by Italy on the exportation of tomato products.

ORGANIZATION OF THE INDUSTRY

United States.—The manufacture of tomato paste in the United States was introduced on a small scale by Italians just prior to the World War. The industry was first located in New Jersey, Maryland, and New York. During the war, when imports from Italy ceased, the industry was greatly extended and plants were established in Indiana and in California. Since the war the industry has flourished in California and in Indiana and has diminished in the Eastern States. In general, manufacturers of tomato paste are tomato canners. The joint production of canned tomatoes and tomato paste enables the canner to use the better grades and larger tomatoes for canning and the smaller misshapen tomatoes for paste.

The United States tomato-paste industry was closely patterned on the Italian. In the early stages much of the machinery employed was similar to that used in Italy. At the present time labor-saving devices have been installed in the more progressive factories and the concentration of the tomatoes to the desired consistency is being performed more and more in vacuum kettles.

Italy.—Sauce of the Naples style, which constitutes the bulk of our imports, is usually prepared in plants which also pack canned tomatoes. In general tomato paste for export to the United States is manufactured in much the same way as the United States product. In the Parma section of northern Italy a highly concentrated product is manufactured but little of it is exported to the United States. Tomatoes are also concentrated by sun-drying, and at times through a salting and fermentation process, for the Italian consumer. These products, however, are not exported to the United States.

PRODUCTION OF TOMATO PASTE IN THE UNITED STATES

Statistics of the annual production of tomato paste (only) in the United States are not available. The data reported by the Bureau of the Census for some years include with tomato paste various tomato sauces, which are packed in cans of similar size to that used by the manufacturer of tomato paste. For example, in California there is an important production of a tomato sauce, which contains green peppers and other vegetables. Table 31 shows the United States production of tomato paste [3] as reported by the United States Bureau of the Census.

TABLE 31.—*Tomato paste: United States production, in cases of two hundred 6-ounce cans* [3]

[Source: Bureau of the Census]

	Cases	Value	Value per case
1919	86,656	$1,300,680	$15.01
1921	88,408	889,286	10.06
1923	218,997	1,987,885	9.08
1925	350,288	2,593,108	7.74

[3] Probably includes some tomato sauces.

The commission's investigation indicates that California is the most important State in the production of tomato paste. Indiana is next. There is also a small production in New Jersey and Maryland.

UNITED STATES IMPORTS OF TOMATO PASTE

Statistics of imports of tomato paste into the United States are not recorded separately prior to the tariff act of 1922. An examination of the books of leading importers in New York City indicates that before the World War most of the Italian exports of tomato products to the United States were in the form of tomato paste. It is estimated that approximately 250,000 to 300,000 cases (containing 200 6-ounce cans each) were imported annually into the United States from Italy in the years directly preceding the World War. This estimate was arrived at by a comparison of the export data given in the official reports of the Italian Minister of Finance and the import data obtained from the records of leading importers in New York City.

In Table 32 the United States imports of tomato paste are shown for the period from September 22, 1922, to December 31, 1928. The table indicates that the maximum importation under the present tariff act was reached in 1925 and that there has been a decline since that date.

TABLE 32.—*Tomato paste: United States imports for consumption, September 22, 1922 to December 31, 1928, inclusive* [1]

	Pounds	Value	Value per pound
Sept. 22 to Dec. 31, 1922	1,867,555	$204,447	$0.109
1923	7,139,441	753,779	.106
1924	10,126,583	962,393	.095
1925	18,484,464	1,661,101	.090
1926	15,912,247	1,502,831	.094
1927	13,857,335	1,423,729	.103
1928	10,011,199	1,035,920	.103

[1] More than 99 per cent of the imports came from Italy.

PRINCIPAL COMPETING COUNTRY

Of the total imports of tomato paste from September 22, 1922, to December 31, 1928, more than 99 per cent came from Italy. Italy is, therefore, for purposes of section 315, the principal competing country.

UNITED STATES EXPORTS OF TOMATO PASTE

The United States Department of Commerce does not report separately any exports of domestic tomato paste. Little, if any, domestic tomato paste is exported.

PRODUCTION OF TOMATO PASTE IN ITALY

No information is available as to the production of tomato paste in Italy. It is known that considerable quantities are consumed in Italy, and that much of it is prepared by a somewhat different process from the canned tomato paste which is manufactured for export to the United States. Most of the United States imports come from the Naples district.

ITALIAN EXPORTS OF TOMATO PASTE

Italy leads in international trade in tomato paste. Italian paste is shipped principally to the United States, England, and Argentina. Table 33 shows the exports from Italy from 1915 to 1926, inclusive. No attempt has been made to convert these exports to cases of two hundred 6-ounce cans, since the exports to countries other than the United States often consist of highly concentrated tomato paste packed in various-sized containers.

TABLE 33.—*Tomato paste: Italian exports, 1915–1926, inclusive*

[Source: Official reports of the Italian Minister of Finance]

Year	Pounds	Year	Pounds
1915	57,706,000	1921	(1)
1916	40,655,000	1922	(1)
1917	8,042,000	1923	(1)
1918	8,071,000	1924	77,636,000
1919	39,520,000	1925	89,064,000
1920	50,632,000	1926	93,872,000

[1] Tomato paste exports not reported separately.

PRICES

Published prices are not available in the United States for either domestic or Italian tomato paste. Table 60, page 70, in the Appendix shows the home market value of tomato paste at Naples, Italy. Since 1923, the price of Italian tomato paste, duty paid, in New York, has been about $3 per case higher than domestic tomato paste. In retail grocery stores Italian tomato paste has been sold at from 2 to 3 cents per can higher than the domestic.

COSTS OF PRODUCTION OF TOMATO PASTE IN THE UNITED STATES

Scope of the investigation.—The commission obtained costs of manufacturing tomato paste in the United States in the following regions:

(1) California: The area centering around San Jose.
(2) Indiana: The section north of Indianapolis, and in the southern tier of the State north of the Ohio River.

The production of tomato paste for varying concentrations and sizes of cans covered by the commission's investigation for the entire United States is shown in Table 34.

TABLE 34.—*Tomato paste: United States production covered by commission's investigation, 1926*

Cases of 200 6-ounce cans, total solids 20 to 26 per cent	77,126
Cases of 200 6-ounce cans, total solids 30 to 35 per cent	4,059
Cases of 100 12-ounce cans, total solids 30 to 35 per cent	2,624
Cases of 250 5-ounce cans, total solids 10 to 16 per cent	21,773
Total cases	105,582

Costs of production.—Table 35 shows the costs of production of tomato paste of varying concentrations and styles of pack. Weighted average figures are given for the United States to avoid disclosing

individual operations. Items of cost, wherever possible, were charged directly to each product. Where tomato paste was manufactured jointly with other tomato products, these joint costs, after deducting items directly chargeable to each particular product, were allocated to the different joint products in the ratio that the receipts for that product bore to the receipts for all products.

TABLE 35.—*Tomato paste: Cost of production in the United States of tomato paste of varying concentrations and styles of pack*

[Data are for 1926 except when otherwise indicated]

United States	200 six-ounce cans to case; total solids, 20–26 per cent	200 six-ounce cans to case; total solids, 30–35 per cent	100 twelve-ounce cans to case; total solids, 30–35 per cent	250 five-ounce cans to case; total solids, 10–16 per cent
Production covered in commission's investigation (cases)	77,126	4,059	2,624	21,773
Cost of production:				
Raw tomatoes at—				
(a) Price paid by canner, 1926	$2.8631	$3.6951	$4.5590	$1.8180
(b) On basis of cost of growing tomatoes by survey method, 1926	2.5156	3.3978	3.9483	1.5794
(c) On basis of cost of growing tomatoes by survey method, 1927	3.5255	3.2090	4.1991	1.6020
Other direct costs—				
Cans	2.7483	3.1645	1.9772	2.5552
Cases	.3103	.5071	.4396	.3751
Labels	.1876	.2301	.2005	.2626
Labor	.5544	1.4820	.7783	.5327
Total other direct costs	3.8006	5.3837	3.3956	3.7256
Indirect costs—				
Labor and superintendence	.2789	.2068	.2608	.2699
Power, water, and light	.1756	.2252	.2047	.0901
Maintenance and repairs	.1339	.1389	.1081	.0597
Depreciation	.2908	.4905	.3864	.3346
Insurance	.1009	.2270	.1335	.1807
Taxes	.0271	.0414	.0430	.0346
Administrative and office expense	.0822	.4291	.2134	.0593
Miscellaneous supplies and expense	.2860	.3733	.3416	.3893
Total indirect costs	1.3754	2.1342	1.6915	1.4182
Total cost of production f. o. b. plant, including raw tomatoes at—				
(a) Price paid by canner, 1926	8.0391	11.2130	9.6461	6.9618
(b) Cost of growing tomatoes by survey method, 1926	7.6916	10.9157	9.0354	6.7232
(c) Cost of growing tomatoes by survey method, 1927	8.7015	10.7269	9.2862	6.7458

COSTS OF PRODUCTION OF TOMATO PASTE IN ITALY

Analysis of invoices of imports of tomato paste from Italy.—The commission did not find it practicable to obtain the costs of producing tomato paste from the cost records of the producers in Italy. An analysis was made of consular invoices of shipments of tomato paste from Italy to New York for the period September, 1926, to August, 1927, inclusive. This analysis covered 89.01 per cent of the imports for consumption of tomato paste entered at New York, or 51.69 per cent of the total imports for consumption into the United States. The data obtained were checked back to the records of the importers.

Italian tomato paste is usually shipped to the United States in cases of two sizes, two hundred 6-ounce cans to the case and two hundred and fifty 5-ounce cans to the case. In Table 36 a summary is shown of the quantities of tomato paste covered in the invoice analysis made

in New York by the commission's agents. Consular invoices and entry documents for 78,801 cases of two hundred 6-ounce cans to the case, and 377 cases of two hundred and fifty 5-ounce cans to the case, were analyzed. Approximately one-third of the imports analyzed were consigned.

TABLE 36.—*Tomato paste: Total number of cases of Italian tomato paste covered in analysis of invoice of entries at New York, N. Y., September, 1926, to August, 1927, inclusive*

	Number of cases		Number of cases
Cases of 200 6-ounce cans		*Cases of 250 5-ounce cans*	
Purchased:		Purchased:	
From Naples	52,223	From Naples	357
From Scafati	240	From Florence	20
From Bari	100	Total purchased	377
Total purchased	52,563		
Consigned	26,238	Total entered	377
Total entered	78,801		

The commission's analysis of the invoices of entries of Italian tomato paste at New York is presented only for paste packed two hundred 6-ounce cans to the case. Importations of other sizes are small. The analysis does not include tomato paste which came from Italian cities other than Naples.

Invoices of imports of actual purchases only were considered. Table 37 is a summary of the data obtained by the commission in its analysis of the invoices. It shows the number of cases covered, the price f. o. b. Naples, the various charges included in that price, the ocean freight, marine insurance, and the value on which duty was collected.

TABLE 37.—*Tomato paste: Summary of analysis of invoices of shipments of tomato paste in cases of two hundred 6-ounce cans from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

	Total cases of 200 6-ounce cans covered in analysis	Weighted average per case of 200 6-ounce cans [1]							
		Price f. o. b. Naples	Included in f. o. b. price			Ocean freight	Marine insurance	Total c. i. f. price at New York	Value on which duty was collected
			Cases and packing	Loading and shipping	All other charges				
1926									
September	7,190	$9.042	$0.211	$0.037	$0.007	$0.320	$0.015	$9.377	$9.118
October	4,132	8.794	.222	.029	.049	.298	-------	9.092	9.007
November	8,892	9.445	.278	.080	.005	.259	.021	9.725	9.387
December	7,240	8.995	.329	.066	.014	.285	.031	9.311	9.270
1927									
January	4,510	9.210	.265	.090	.121	.271	.013	9.494	9.489
February	3,560	9.311	.283	.083	.004	.283	.032	9.626	9.693
March	2,900	9.116	.280	.096	.022	.332	.052	9.500	9.572
April	3,984	9.199	.266	.093	.016	.336	.034	9.569	10.138
May	3,600	9.380	.289	.107	.024	.281	.035	9.696	10.139
June	1,020	[2]	[2]	[2]	[2]	[2]	[2]	[2]	10.267
July	2,048	9.629	.360	.111	[2]	.332	.038	9.999	10.232
August	3,147	9.588	.327	.109	.051	.386	.033	10.007	10.178
Total and weighted average	52,223	9.254	.272	.073	.018	.301	.026	9.581	9.623

[1] The numbers of cases and the total values on which the weighted averages per case are based are shown in Table 58, p. 67, Appendix.

[2] Details not available.

This table shows that the value on which duty was collected was consistently greater than the f. o. b. price paid at Naples. The customs appraisers at New York regard Naples as a principal home market in Italy. Since the duty is ad valorem, the value on which duty is collected is the foreign market value for wholesale quantities of similar goods freely offered for sale at Naples at the time of exportation. To assist importers of tomato paste, the Italian Chamber of Commerce in New York twice each month holds meetings of importers and issues bulletins giving their quotations for the foreign market value for the period. These quotations are shown in the Appendix in Table 60, page 70.

COMPETITIVE CONDITIONS

The competition of domestic and Italian tomato paste is restricted chiefly to markets where there are Italian residents, the most important domestic consumers. Before the World War the United States consumed annually about 250,000 to 300,000 cases of 200 cans (6-ounce) to the case. The domestic industry was stimulated by the World War, subsequent embargoes by the Italian Government to conserve food supplies, and heavy rejections by the United States under the pure food law. After the Italian embargo was lifted in 1920 imports of Italian tomato paste gradually increased. However, import statistics, as shown in Table 32, page 44, indicate that the Italian shippers have not been able to regain their position in the American market, as a considerable proportion of the demand has come to be supplied by the domestic production.

Little attempt has been made by either domestic producers or importers of the Italian product to develop a market for tomato paste among Americans not of Italian origin. The market for tomato paste is largely confined to the territory west of Boston, east of Pittsburgh, and north of Baltimore. In this region there are large industrial centers where reside considerable numbers of people of Italian origin.

The United States standards for the purity of tomato paste are the same for domestic as for the imported product but a much more complete inspection of the foreign product is possible because each importation must receive a permit to enter the United States. Domestic tomato paste which enters into interstate commerce is subject to the Federal Government's control, The heavy rejections of imported tomato paste have tended to force the price of Italian tomato paste destined for the United States to a higher level than tomato paste destined for consumption in Italy or in other countries.

TRANSPORTATION

New York City is the most important market for tomato paste. Other important markets are Philadelphia, Boston, New Haven, Chicago, Pittsburgh, and New Orleans.

United States imports for consumption by ports.—Table 38 shows the United States imports for consumption by ports for the years 1926 and 1927. During these years the imports at New York were 62.1 per cent and 73.57 per cent, respectively, of the total imports.

TABLE 38.—*Tomato paste: United States imports for consumption by ports of entry, 1926 and 1927*

Customs district	1926		1927	
	Quantity	Value	Quantity	Value
	Pounds		*Pounds*	
New York	9,881,728	$966,980	10,194,716	$1,037,573
Massachusetts	2,755,044	262,566	1,972,680	210,545
Philadelphia	2,331,552	180,670	598,556	68,591
New Orleans	42,495	6,482	33,493	3,253
Chicago	184,039	18,736	271,141	30,357
Michigan	937	158	499	70
Omaha	220	13		
Washington	37,500	3,786	25,500	2,627
Pittsburgh	41,012	5,116	1,730	207
Connecticut	585,623	53,896	588,686	55,116
Wisconsin	1,410	114	3,363	365
San Francisco	18,060	1,718	50,398	4,812
Ohio	695	107		
Porto Rico	16,433	908	1,641	65
Florida	6,850	980		
Los Angeles	5,512	587		
Rochester	22	3	27,300	2,347
Buffalo	75	7	586	94
Galveston	40	4		
Rhode Island			86,909	7,686
St. Louis			137	21
Total	15,912,247	1,502,831	13,857,335	1,423,729

Distribution of domestic tomato paste in 1926.—Table 39 shows the distribution in 1926 of domestic tomato paste of a total solid content of 20 to 26 per cent.

TABLE 39.—*Tomato paste: Distribution of domestic tomato paste, total solids 20 to 26 per cent, in 1926*

[In cases of two hundred 6-ounce cans]

Destination	Cases	Percent of total
Chicago, Ill	20,983	27.95
Philadelphia, Pa	13,742	18.31
New York, N. Y	8,151	10.86
Boston, Mass	7,781	10.36
Pittsburgh, Pa	7,241	9.65
New Orleans, La	7,048	9.39
Cleveland, Ohio	3,803	5.06
Utica, N. Y	1,718	2.29
Buffalo, N. Y	1,717	2.29
Rochester, N. Y	1,717	2.29
San Francisco, Calif	795	1.06
Other	369	.49
Total	75,065	100.00
New York and eastern points		46.40
Chicago, Pittsburgh, and Cleveland		42.66
New Orleans		9.39
San Francisco		1.06
Other		.49
Total		100.00

Transportation and other charges for Italian tomato paste.—As shown in Table 37, page 47, the f. o. b. price at Naples for tomato paste shipped to the United States includes various local charges incurred in Italy. Table 37 also gives the ocean freight charge and marine insurance to New York per case of two hundred 6-ounce cans. For the period, September, 1926, to August, 1927, the weighted average per case for ocean freight from Naples to New York was $0.301 and for marine insurance $0.026, or a total for these two items of $0.327.

Transportation for United States tomato paste.—Freight rates in the United States for tomato paste are the same per 100 pounds as for canned tomatoes. Tomato paste is usually shipped in wooden boxes, and the gross shipping weight of a case of two hundred 6-ounce cans is approximately 116 pounds. Freight rates for tomato paste from producing points to New York City are shown in the Appendix in Table 61, page 70.

The weighted average transportation charge for domestic tomato paste, concentrated to 20 to 26 per cent total solids, to New York, based on the production covered in the commission's investigation, is $0.578 per case. This transportation charge would be practically the same if it were weighted on the basis of actual shipments to New York.

COMPARISON OF COSTS OF PRODUCTION OF DOMESTIC AND ITALIAN TOMATO PASTES

Comparability.—The commission's investigation shows that the domestic tomato paste is produced in various concentrations but that the bulk of the production is of tomato paste packed two hundred 6-ounce cans to the case, with a total solid content of 20 to 26 per cent. Imports of Italian tomato paste consist almost entirely of tomato paste packed in a similar size can and case and concentrated to a total solid content of 20 to 26 per cent.

Of the total domestic production of tomato paste more than 50 per cent is manufactured in California, where the tomatoes used taste much like those grown in Italy. Domestic and Italian tomato pastes marketed in the United States have about the same appearance, but much of the domestic paste is artificially colored.

Summary of costs of production of tomato paste in the United States and Italy.—The final comparison of costs is made between domestic and Italian tomato pastes of a total solid content of 20 to 26 per cent. Table 40 is a comparison of domestic costs of production of tomato paste, including transportation to New York, with the total cost of the Italian tomato paste landed at New York, the cost of the Italian paste being calculated by assuming a 10 per cent profit in the invoice price of imports. (See transcript of minutes of public hearing, p. 456.)

TABLE 40.—*Tomato paste: Summary of cost of production in the United States and Italy*

[In cases of two hundred 6-ounce cans]

	United States	Italy
Total costs at factory based on:		
Price paid by canner for tomatoes, 1926	$8.0391	[1] $8.413
Farm cost of production of tomatoes, 1926	7.6916	.....
Farm cost of production of tomatoes, 1927	8.7015	.....
Simple average of farm cost of production of tomatoes, 1926-27	8.1966	.....
Transportation to New York (includes marine insurance for Italian)	.5780	.327
Total cost at New York on basis of:		
Price paid by canner for tomatoes, 1926	8.6171	8.740
Farm cost of production of tomatoes, 1926	8.2696	.....
Farm cost of production of tomatoes, 1927	9.2795	.....
Simple average of farm cost of production of tomatoes, 1926-27	8.7746	.....
Foreign value	.....	9.254

[1] Calculated by assuming a 10 per cent profit in the invoice price of imports. (See Transcript of minutes of public hearings, p. 456.)

SUMMARY FOR TOMATO PASTE

Findings of fact to the following effect are, in the judgment of the United States Tariff Commission, warranted by the evidence collected in the commission's investigation of the costs of production of tomato paste, summarized in the foregoing report:

1. Italy is the principal competing country.
2. New York is the principal market in the United States for tomato paste.
3. The duty on tomato paste of 40 per cent ad valorem prescribed in paragraph 770 of Title I of the tariff act of 1922, does not equalize the differences in costs of production of tomato paste in the United States and in the said principal competing country.
4. The weighted average cost of production in the United States of tomato paste with a concentration of 20 to 26 per cent of total solids, based on the price paid by the domestic canners for tomatoes in 1926, is $8.62 per case of 200 6-ounce cans; based on the simple average of the domestic farm costs of production of tomatoes in 1926 and 1927, it is $8.77 per case of 200 6-ounce cans. The transportation charge for domestic tomato paste to New York is practically the same whether it is weighted on the basis of the production covered by the commission's investigation or is weighted on the basis of shipments which actually moved to New York City.
5. The weighted average cost of production of tomato paste of a concentration of 20 to 26 per cent of total solids, imported into the United States from said principal competing country, including transportation to New York, is $8.74 per case of 200 6-ounce cans.
6. The rate of duty as shown by said differences in costs of production of tomato paste in the United States and in said principal competing country, including transportation to New York, necessary to equalize said differences, within the limit provided in said section 315, is the rate of 20 per cent ad valorem.

Respectfully submitted.

THOMAS O. MARVIN,
Chairman.
ALFRED P. DENNIS,
Vice Chairman.
EDGAR B. BROSSARD,
SHERMAN J. LOWELL,
LINCOLN DIXON,
FRANK CLARK,
Commissioners.

STATISTICAL APPENDIX

STATISTICAL APPENDIX

Tables 41 and 42 show the detailed summary of the items entering into costs of growing tomatoes on all farms in the United States covered by the cost inquiry of the commission during the years 1926 and 1927, respectively.

TABLE 41.—*Tomatoes for manufacture: Detailed summary of the items entering into the cost of growing tomatoes on all farms in the United States, covered by the cost inquiry of the commission*

YEAR 1926

[Per acre]

	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Acres planted	114.3	250.5	160.5	164.5	107.2	117.0	247.0	442.0	291.5
Acres harvested	114.3	250.5	159.5	164.5	99.2	117.0	232.0	442.0	271.7
Yield per acre harvested (tons)	3.07	4.78	7.66	6.67	5.74	9.63	6.73	10.37	8.68
COST DATA									
Detailed costs:									
Labor and supervision	$16.33	$12.19	$20.34	$32.22	$24.90	$62.57	$26.67	$39.48	$26.20
Contract work	2.81	15.03	18.37	9.29	10.30	10.29	19.92	24.34	35.43
Horse work	6.69	7.12	7.70	15.55	10.42	14.73	2.88	5.70	7.97
Tractor and truck	2.02	6.65	9.91	.94	4.55	.81	24.10	12.17	22.44
Plants	3.88	4.89	17.47	5.59	6.63	13.42	4.99	7.03	3.16
Containers	1.83	2.29	.....	.01	.97	1.72	2.94	3.33	.....
Fertilizers	20.89	33.73	14.50	8.36	7.57	5.52	.04	.29	2.58
Taxes	1.15	3.13	1.81	1.61	2.74	3.76	3.24	5.58	8.62
Machinery	1.67	1.74	1.35	1.71	.86	5.21	.65	.88	1.60
Irrigation	.....	.....	.....	.....	.....	7.20	.16	14.23	9.75
Miscellaneous	.41	.92	1.94	.90	3.22	.74	.51	1.41	2.92
Total gross cost	57.68	87.69	93.39	76.18	72.16	125.97	86.10	114.44	120.67
Credits	.....	.....	.....	.....	.....	.....	.47	.73	8.88
Net cost	57.68	87.69	93.39	76.18	72.16	125.97	85.63	113.71	111.79
Interest:									
On land at 6 per cent	4.77	5.97	6.94	4.98	9.05	18.50	14.95	29.54	63.03
On other capital at 6 per cent	.93	1.27	.91	1.10	.56	1.75	.34	.47	.99
Total interest on land and other capital	5.70	7.24	7.85	6.08	9.61	20.25	15.29	30.01	64.02
Net cash rental	10.18	12.38	11.91	8.01	7.62	25.13	17.68	24.60	23.78
Total net cost:									
With interest on land and other capital as calculated above	63.38	94.93	101.24	82.26	81.77	146.22	100.92	143.72	175.81
With net cash rental on land and with interest on other capital	68.79	101.34	106.21	85.29	80.34	152.85	103.65	138.78	136.56
Returns per acre	56.96	82.72	117.09	82.09	75.08	96.62	101.11	148.97	149.58

TABLE 42.—*Tomatoes for manufacture: Detailed summary of the items entering into the cost of growing tomatoes on all farms in the United States, covered by the cost inquiry of the commission*

YEAR 1927

[Per acre]

	Easton, Md.	Bridgeton, N. J.	Albion, N. Y.	Brownstown, Ind.	Kokomo, Ind.	Ogden, Utah	Sacramento, Calif.	San Jose, Calif.	Los Angeles, Calif.
Acres planted	115.3	235.6	144.0	124.7	140.5	164.5	297.0	410.0	393.0
Acres harvested	115.3	235.6	144.0	119.5	140.5	163.5	297.0	410.0	393.0
Yield per acre harvested (tons)	4.24	5.81	9.63	6.14	8.79	9.25	4.03	6.08	7.50
COST DATA									
Detailed costs:									
Labor and supervision	$16.16	$12.79	$19.49	$28.61	$23.67	$66.38	$27.62	$37.27	$25.26
Contract work	4.95	16.66	25.98	8.53	16.54	11.75	10.04	14.18	27.89
Horse work	7.37	7.67	7.29	15.78	9.87	14.94	3.37	5.63	4.71
Tractor and truck	2.41	7.77	10.57	.78	6.72	.80	18.21	12.27	20.86
Plants	3.90	4.70	19.10	5.21	5.84	14.34	4.57	7.14	3.01
Containers	1.74	2.66	----	----	.86	1.60	1.68	2.05	.01
Fertilizers	20.29	35.09	14.81	10.06	7.77	6.36	.03	.56	1.94
Taxes	1.21	3.09	1.76	1.56	2.40	4.08	2.98	5.12	7.43
Machinery	1.67	1.77	1.35	1.77	.86	5.22	.65	.89	1.60
Irrigation	----	----	----	----	----	7.10	.02	15.07	9.95
Miscellaneous	.65	.93	2.04	.90	3.41	1.25	.68	1.62	3.58
Total gross cost	60.35	93.13	102.39	73.20	77.94	133.82	69.85	101.80	106.24
Credits	----	----	----	----	----	.49	.37	1.16	5.44
Net cost	60.35	93.13	102.39	73.20	77.94	133.33	69.48	100.64	100.80
Interest:									
On land at 6 per cent	4.76	5.96	6.99	4.94	8.53	19.40	14.11	30.55	61.96
On other capital at 6 per cent	.92	1.28	.89	1.11	.57	1.82	.34	.52	.97
Total interest on land and other capital	5.68	7.24	7.88	6.05	9.10	21.22	14.45	31.07	62.93
Net cash rental	10.23	11.88	11.07	8.54	6.96	24.31	16.41	25.08	22.40
Total net cost:									
With interest on land and other capital as calculated above	66.03	100.37	110.27	79.25	87.04	154.55	83.93	131.71	163.73
With net cash rental on land and with interest on other capital	71.50	106.29	114.35	82.85	85.47	159.46	86.23	126.24	124.17
Returns per acre	56.20	89.47	138.31	76.08	105.54	102.13	60.51	91.35	126.63

Table 43 shows the number of farms, acres, and tons of tomatoes produced at varying costs per acre and the accumulative number and per cent of each, 1927.

TABLE 43.—*Tomatoes for manufacture: Array showing number of farms, acres, and tons of tomatoes produced at varying costs per acre and the accumulative number and per cent of each*

	Farms			Acres			Tons		
	Number	Accumulative number	Accumulative per cent of total	Number	Accumulative number	Accumulative per cent of total	Number	Accumulative number	Accumulative per cent of total
Less than $8	6	6	2.80	27.2	27.2	1.35	370.70	370.70	2.77
$8 and less than $8.50	10	16	7.48	73.8	101.0	5.00	867.68	1,238.38	9.26
$8.50 and less than $9	3	19	8.88	14.0	115.0	5.70	140.00	1,378.38	10.31
$9 and less than $9.50	3	22	10.28	18.0	133.0	6.59	276.30	1,654.68	12.38
$9.50 and less than $10	5	27	12.62	21.0	154.0	7.63	227.19	1,881.87	14.08

TABLE 43.—*Tomatoes for manufacture: Array showing number of farms, acres, and tons of tomatoes produced at varying costs per acre and the accumulative number and per cent of each*—Continued

	Farms			Acres			Tons		
	Number	Accumulative number	Accumulative per cent of total	Number	Accumulative number	Accumulative per cent of total	Number	Accumulative number	Accumulative per cent of total
$10 and less than $10.50	5	32	14 95	18.0	172.0	8.52	191.25	2,073.12	15.51
$10.50 and less than $11	10	42	19.63	56.3	228.3	11.31	511.32	2,584.44	19.33
$11 and less than $11.50	6	48	22.43	115.0	343.3	16.01	1,124.31	3,708.75	27.75
$11.50 and less than $12	11	59	27.57	88.0	431.3	21.37	921.80	4,630.55	34.64
$12 and less than $12.50	8	67	31.31	33.5	464.8	22.03	323.93	4,954.48	37.06
$12.50 and less than $13	5	72	33.64	73.0	537.8	26.64	591.50	5,545.98	41.49
$13 and less than $13.50	4	76	35.51	26.0	563.8	27.93	253.40	5,799.38	43.39
$13.50 and less than $14	10	86	40.19	66.5	630.3	31.23	530.54	6,329.92	47.35
$14 and less than $14.50	5	91	42.52	51.8	682.1	33.79	394.20	6,724.12	50.30
$14.50 and less than $15	8	99	46.26	64.3	746.4	36.98	533.70	7,257.82	54.30
$15 and less than $15.50	8	107	50.00	67.5	813.9	40.32	482.00	7,739.82	57.90
$15.50 and less than $16	2	109	50.93	18.0	831.9	41.22	82.50	7,822.32	58.52
$16 and less than $16.50	3	112	52.34	12.0	843.9	41.81	106.10	7,923.42	59.31
$16.50 and less than $17	5	117	54.67	29.0	872.9	43.25	282.35	8,210.77	61.43
$17 and less than $17.50	7	124	57.94	60.5	933.4	46.24	306.63	8,517.40	63.72
$17.50 and less than $18	2	126	58.88	14.0	947.4	46.94	83.00	8,600.40	64.34
$18 and less than $18.50	7	133	62.15	184.0	1,131.4	56.05	1,080.00	9,680.40	72.42
$18.50 and less than $19	3	136	63.55	44.0	1,175.4	58.23	221.00	9,901.40	74.07
$19 and less than $19.50	4	140	65.42	70.0	1,245.4	61.70	372.30	10,273.70	76.86
$19.50 and less than $20	2	142	66.36	8.7	1,254.1	62.13	95.00	10,368.70	77.57
$20 and less than $20.50	1	143	66.82	10.0	1,264.1	62.63	59.50	10,428.20	78.01
$20.50 and less than $21	4	147	68.69	28.0	1,292.1	64.02	174.60	10,602.80	79.32
$21 and less than $21.50	3	150	70.09	37.0	1,329.1	65.85	146.20	10,749.00	80.41
$21.50 and less than $22	4	154	71.96	39.0	1,368.1	67.78	256.17	11,005.17	82.33
$22 and less than $22.50									
$22.50 and less than $23	3	157	73.36	40.1	1,408.2	69.77	268.00	11,273.17	84.34
$23 and less than $23.50	1	158	73.83	2.0	1,410.2	69.87	14.70	11,287.87	84.45
$23.50 and less than $24	1	159	74.30	20.0	1,430.2	70.86	80.00	11,367.87	85.04
$24 and less than $24.50	2	161	75.23	10.0	1,440.2	71.35	46.07	11,413.94	85.39
$24.50 and less than $25									
$25 and less than $25.50	5	166	77.57	45.7	1,485.9	73.62	192.70	11,606.64	86.83
$25.50 and less than $26	2	168	78.50	5.5	1,491.4	73.89	11.31	11,617.95	86.92
$26 and less than $26.50	2	170	79.44	71.0	1,562.4	77.41	357.70	11,975.65	89.59
$26.50 and less than $27	1	171	79.91	6.0	1,568.4	77.71	15.00	11,990.65	89.70
$27 and less than $27.50	1	172	80.37	6.0	1,574.4	78.00	42.00	12,032.65	90.02
$27.50 and less than $28	1	173	80.84	17.0	1,591.4	78.84	150.00	12,182.65	91.14
$28 and less than $28.50	1	174	81.31	4.0	1,595.4	79.04	16.50	12,199.15	91.26
$28.50 and less than $29	2	176	82.24	8.0	1,603.4	79.44	37.00	12,236.15	91.54
$29 and less than $29.50	2	178	83.18	7.0	1,610.4	79.79	32.20	12,268.35	91.78
$29.50 and less than $30	1	179	83.64	50.0	1,660.4	82.26	203.00	12,471.35	93.30
$30 and less than $30.50	1	180	84.11	10.0	1,670.4	82.76	44.00	12,515.35	93.63
$30.50 and less than $31	1	181	84.58	21.0	1,691.4	83.80	52.00	12,567.35	94.02
$31 and less than $31.50	1	182	85.05	7.0	1,698.4	84.15	21.00	12,588.35	94.17
$31.50 and less than $32	2	184	85.98	13.0	1,711.4	84.79	44.35	12,632.70	94.51
$32 and less than $32.50	1	185	86.45	4.0	1,715.4	84.99	24.30	12,657.00	94.69
$32.50 and less than $33	1	186	86.92	7.0	1,722.4	85.33	12.25	12,669.25	94.78
$33 and less than $33.50	2	188	87.85	15.0	1,737.4	86.08	66.00	12,735.25	95.27
$33.50 and less than $34	1	189	88.32	6.0	1,743.4	86.38	30.10	12,765.35	95.50
$34 and less than $34.50	3	192	89.72	29.0	1,772.4	87.81	89.45	12,854.80	96.17
$34.50 and less than $35	2	194	90.65	32.0	1,804.4	89.40	96.50	12,951.30	96.89
$35 and less than $35.50	1	195	91.12	2.5	1,806.9	89.52	14.00	12,965.30	93.99
$35.50 and less than $36	1	196	91.59	9.0	1,815.9	89.97	38.00	13,003.30	97.28
$36.50 and less than $37	1	197	92.06	2.0	1,817.9	90.07	6.00	13,009.30	97.32
$37.50 and less than $38	1	198	92.52	30.0	1,847.9	91.55	126.50	13,135.80	98.27
$38.50 and less than $39	1	199	92.99	18.0	1,865.9	92.44	25.00	13,160.80	98.46
$40.50 and less than $41	2	201	93.93	7.5	1,873.4	92.82	32.30	13,193.10	98.70
$42.50 and less than $43	1	202	94.39	4.0	1,877.4	93.01	5.00	13,198.10	98.74
$43 and less than $43.50	1	203	94.86	5.0	1,882.4	93.26	18.00	13,216.10	98.87
$44 and less than $44.50	1	204	95.33	4.0	1,886.4	93.46	12.80	13,228.90	98.97
$46 and less than $46.50	1	205	95.79	4.0	1,890.4	93.66	5.79	13,234.69	99.01
$46.50 and less than $47	1	206	96.26	10.0	1,900.4	94.15	12.00	13,246.69	99.10
$51 and less than $51.50	1	207	96.73	13.0	1,913.4	94.80	17.50	13,264.19	99.23
$59 and less than $59.50	1	208	97.20	16.0	1,929.4	95.59	33.00	13,297.19	99.48
$61.50 and less than $62	1	209	97.66	9.0	1,938.4	96.04	9.80	13,306.99	99.55
$64.50 and less than $65	1	210	98.13	30.0	1,968.4	97.52	31.00	13,337.99	99.78
$73 and less than $73.50	1	211	98.60	7.0	1,975.4	97.87	7.00	13,344.99	99.84
$74.50 and less than $75	1	212	99.07	7.0	1,982.4	98.22	10.00	13,354.99	99.91
$123.50 and less than $124	1	213	99.53	6.0	1,988.4	98.51	2.01	13,357.00	99.93
$143 and less than $143.50	1	214	100.00	30.0	2,018.4	100.00	10.00	13,367.00	100.00
Total	214	214	100.00	2,018.4	2,018.4	100.00	13,367.00	13,367.00	100.00

Tables 44 to 54, inclusive, show the detailed costs of production in the United States of canned tomatoes of various grades and pack in cans of varying sizes.

TABLE 44.—*Canned tomatoes: Cost of production in the United States of one dozen No. 1 tall cans of grades higher than standards (solid pack, extra standard, or fancy)*

[All data for 1926 except as indicated]

District	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States
Production covered in commission's investigation (dozens)	18,756	50,408	122,276	35,508	226,948
Cost of production:					
Raw tomatoes at—					
(a) Price paid by canner, 1926	$0.1943	$0.2101	$0.2179	$0.2408	$0.2178
(b) On basis of cost of growing tomatoes by survey method, 1926	.2843	.2053	.1918	.2351	.2092
(c) On basis of cost of growing tomatoes by survey method, 1927	.3054	.2151	.2773	.3199	.2725
Other direct costs:					
Cans	.2534	.2549	.2510	.2518	.2522
Cases	.0458	.0408	.0424	.0440	.0426
Labels	.0358	.0188	.0372	.0316	.0321
Labor	.0949	.1451	.1597	.1662	.1521
Total other direct costs	.4299	.4596	.4903	.4936	.4790
Indirect costs:					
Labor and superintendence	.0032	.0214	.0032	.0023	.0072
Power, water, and light	.0117	.0091	.0082	.0081	.0086
Maintenance and repairs	.0200	.0108	.0121	.0110	.0123
Depreciation	.0332	.0142	.0143	.0138	.0157
Insurance	.0031	.0049	.0032	.0038	.0037
Taxes	.0048	.0030	.0031	.0042	.0034
Administrative and office expenses	.0084	.0102	.0230	.0214	.0187
Miscellaneous supplies and expenses	.0053	.0067	.0043	.0069	.0056
Total indirect costs	.0897	.0803	.0714	.0735	.0752
Total cost of production f. o. b. plant, including raw tomatoes at:					
(a) Price paid by canner, 1926	.7139	.7500	.7796	.8079	.7720
(b) Cost of growing tomatoes by survey method, 1926	.8039	.7452	.7535	.8022	.7634
(c) Cost of growing tomatoes by survey method, 1927	.8250	.7550	.8390	.8870	.8267

TABLE 45.—*Canned tomatoes: Cost of production in the United States of one dozen No. 10 cans of grades higher than standards. (Solid pack, extra standard, or fancy)*

[All data for 1926 except as indicated]

Districts	New York	Indiana	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States
Production covered in commission's investigation (dozens)	2,980	6,038	6,442	32,127	42,819	9,176	99,582
Cost of production:							
Raw tomatoes at—							
(a) Price paid by canner, 1926	$1.3077	$1.3535	$1.3064	$1.1593	$1.4004	$1.5713	$1.3266
(b) On basis of cost of growing tomatoes by survey method, 1926	1.2432	1.4620	1.8396	1.1741	1.2292	1.5398	1.2941
(c) On basis of cost of growing tomatoes by survey method, 1927	1.0640	1.0479	1.9840	1.2312	1.7945	2.0937	1.5855

TABLE 45.—*Canned tomatoes: Cost of production in the United States of one dozen No. 10 cans of grades higher than standards. (Solid pack, extra standard, or fancy)*—Continued

[All data for 1926 except as indicated]

Districts	New York	Indiana	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States
Other direct costs:							
Cans	$0.7759	$0.8459	$0.8846	$0.8412	$0.8331	$0.8261	$0.8375
Cases	.2925	.3766	.3074	.2732	.3043	.3206	.3000
Labels	.0385	.0241	.0324	.0202	.0434	.0369	.0333
Labor	.6021	.4753	.6513	.7677	.6736	.8478	.7045
Total other direct costs	1.7120	1.7219	1.8757	1.9023	1.8544	2.0314	1.8753
Indirect costs:							
Labor and superintendence	.2974	.2365	.1330	.1849	.0573	.0157	.1176
Power, water, and light	.0520	.0688	.1112	.0424	.0752	.0569	.0642
Maintenance and repairs	.0953	.0751	.0826	.0734	.0912	.1120	.0859
Depreciation	.2132	.0910	.3334	.0853	.1013	.1495	.1183
Insurance	.0894	.0767	.1060	.0309	.0326	.0242	.0404
Taxes	.0334	.0043	.0726	.0169	.0176	.0433	.0230
Administrative and office expenses	.0339	.1266	.2317	.0410	.1622	.1555	.1210
Miscellaneous supplies and expenses	.2095	.0651	.1476	.0305	.0394	.0618	.0522
Total indirect costs	1.0241	.7441	1.2181	.5053	.5768	.6189	.6226
Total cost of production f. o. b. plant, including raw tomatoes at:							
(a) Price paid by canner, 1926	4.0438	3.8195	4.4002	3.5669	3.8316	4.2216	3.8245
(b) Cost of growing tomatoes by survey method, 1926	3.9793	3.9280	4.9334	3.5817	3.6604	4.1901	3.7920
(c) Cost of growing tomatoes by survey method, 1927	3.8001	3.5139	5.0778	3.6388	4.2257	4.7440	4.0834

TABLE 46.—*Canned tomatoes: Cost of production in the United States of one dozen No. 1 cans of "standards with purée"*

[All data for 1926 except as indicated]

	Districts			
	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States[1]
Production covered in commission's investigation (dozens)				319,044
Cost of production:				
Raw tomatoes at—				
(a) Price paid by canner, 1926	$0.1375	$0.1095	$0.1238	$0.1211
(b) On basis of cost of growing tomatoes by survey method, 1926	.1339	.1000	.1225	.1177
(c) On basis of cost of growing tomatoes by survey method, 1927	.1402	.1451	.1665	.1481
Other direct costs:				
Cans	.2544	.2510	.2521	.2525
Cases	.0374	.0434	.0446	.0419
Labels	.0197	.0250	.0252	.0233
Labor	.1325	.1343	.1274	.1295
Total other direct costs	.4440	.4537	.4493	.4472
Indirect costs:				
Labor and superintendence	.0126	.0042	.0020	.0065
Power, water, and light	.0095	.0065	.0073	.0078
Maintenance and repairs	.0087	.0075	.0082	.0085
Depreciation	.0130	.0090	.0105	.0115
Insurance	.0043	.0027	.0033	.0033
Taxes	.0029	.0017	.0033	.0025
Administrative and office expense	.0126	.0178	.0165	.0152
Miscellaneous supplies and expense	.0080	.0030	.0083	.0059
Total indirect costs	.0716	.0524	.0594	.0612
Total cost of production f. o. b. plant, including raw tomatoes at:				
(a) Price paid by canner, 1926	.6531	.6156	.6325	.6295
(b) Cost of growing tomatoes by survey method, 1926	.6495	.6061	.6312	.6261
(c) Cost of growing tomatoes by survey method, 1927	.6558	.6512	.6752	.6565

[1] To avoid disclosing individual operations, costs for Utah district are not shown separately.

TABLE 47.—*Canned tomatoes: Cost of production in the United States of one dozen No. 2 cans of "standards with purée"*

[All data for 1926 except as indicated]

	Districts				
	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States
Production covered in commission's investigation (dozens)	14,710	35,304	69,054	36,154	155,222
Cost of production:					
Raw tomatoes at—					
(a) Price paid by canner, 1926	$0.1229	$0.1835	$0.1273	$0.1664	$0.1488
(b) On basis of cost of growing tomatoes by survey method, 1926	.1757	.1806	.1137	.1686	.1476
(c) On basis of cost of growing tomatoes by survey method, 1927	.1891	.1889	.1640	.2287	.1871
Other direct costs:					
Cans	.2868	.2850	.2965	.2976	.2932
Cases	.0585	.0615	.0646	.0711	.0648
Labels	.0293	.0213	.0277	.0269	.0262
Labor	.1240	.1538	.1597	.1480	.1523
Total other direct costs	.4986	.5216	.5485	.5436	.5365
Indirect costs:					
Labor and superintendence	.0074	.0155	.0021	.0034	.0060
Power, water, and light	.0187	.0122	.0099	.0111	.0115
Maintenance and repairs	.0275	.0112	.0135	.0109	.0137
Depreciation	.0526	.0178	.0143	.0142	.0187
Insurance	.0058	.0053	.0039	.0049	.0049
Taxes	.0085	.0035	.0031	.0042	.0039
Administrative and office expense	.0172	.0200	.0280	.0202	.0234
Miscellaneous supplies and expense	.0157	.0124	.0044	.0140	.0095
Total indirect costs	.1534	.0979	.0792	.0829	.0913
Total cost of production f. o. b. plant, including raw tomatoes at:					
(a) Price paid by canner, 1926	.7749	.8030	.7550	.7929	.7766
(b) Cost of growing tomatoes by survey method, 1926	.8277	.8001	.7414	.7951	.7754
(c) Cost of growing tomatoes by survey method, 1927	.8411	.8084	.7917	.8552	.8149

TABLE 48.—*Canned tomatoes: Cost of production in the United States of one dozen No. 2½ cans of "standards with purée"*

[All data for 1926 except as indicated]

	Districts				
	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total, United States
Production covered in commission's investigation (dozens)	51,900	125,572	649,690	244,350	1,071,512
Cost of production:					
Raw tomatoes at—					
(a) Price paid by canner, 1926	$0.1713	$0.2754	$0.1961	$0.2186	$0.2094
(b) On basis of cost of growing tomatoes by survey method, 1926	.2476	.2679	.1778	.2137	.2000
(c) On basis of cost of growing tomatoes by survey method, 1927	.2663	.2801	.2598	.2908	.2696
Other direct costs:					
Cans	.3459	.3556	.3519	.3529	.3523
Cases	.0760	.0736	.0800	.0815	.0794
Labels	.0335	.0274	.0321	.0326	.0317
Labor	.1787	.2094	.1941	.2008	.1967
Total other direct costs	.6341	.6660	.6581	.6678	.6601

TABLE 48.—*Canned tomatoes: Cost of production in the United States of one dozen No. 2½ cans of "standards with purée"*—Continued

[All data for 1926 except as indicated]

	Districts				
	Utah	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States
Indirect costs:					
Labor and superintendence	$0.0083	$0.0193	$0.0080	$0.0036	$0.0083
Power, water, and light	.0252	.0163	.0148	.0141	.0153
Maintenance and repairs	.0406	.0145	.0189	.0233	.0204
Depreciation	.0715	.0226	.0194	.0303	.0248
Insurance	.0133	.0069	.0060	.0062	.0065
Taxes	.0108	.0046	.0039	.0092	.0055
Administrative and office expense	.0166	.0248	.0392	.0394	.0365
Miscellaneous supplies and expense	.0135	.0170	.0060	.0145	.0096
Total indirect costs	.1998	.1260	.1162	.1406	.1269
Total cost of production f. o. b. plant, including raw tomatoes at:					
(a) Price paid by canner, 1926	1.0052	1.0674	.9704	1.0270	.9964
(b) Cost of growing tomatoes by survey method, 1926	1.0816	1.0599	.9521	1.0221	.9870
(c) Cost of growing tomatoes by survey method, 1927	1.1002	1.0721	1.0341	1.0992	1.0566

TABLE 49.—*Canned tomatoes: Cost of production in the United States of one dozen No. 10 cans of "standards with purée"*

[All data for 1926 except as indicated]

	Districts			
	Los Angeles, Calif.	Santa Clara, Alameda, Calif.	Sacramento, Calif.	Total United States [1]
Production covered in commission's investigation (dozens)	14,867	.....	7,152	73,173
Cost of production:				
Raw tomatoes at—				
(a) Price paid by canner, 1926	$0.8148	$0.7683	$0.7769	$0.7697
(b) On basis of cost of growing tomatoes by survey method, 1926	.8017	.7016	.7599	.7351
(c) On basis of cost of growing tomatoes by survey method, 1927	.8402	1.0284	1.0340	.9855
Other direct costs:				
Cans	.8427	.8310	.8267	.8337
Cases	.2359	.3036	.3164	.2913
Labels	.0212	.0306	.0318	.0289
Labor	.7867	.5888	.6456	.6385
Total other direct costs	1.8865	1.7540	1.8207	1.7924
Indirect costs:				
Labor and superintendence	.1496	.0441	.0109	.0612
Power, water, and light	.0538	.0557	.0371	.0551
Maintenance and repairs	.0697	.0689	.0590	.0723
Depreciation	.0839	.0746	.0336	.0846
Insurance	.0314	.0230	.0560	.0234
Taxes	.0189	.0141	.0215	.0168
Administrative and office expense	.0462	.1338	.1313	.1120
Miscellaneous supplies and expenses	.0375	.0231	.0386	.0292
Total indirect costs	.4910	.4373	.3871	.4546
Total cost of production f. o. b. plant, including raw tomatoes, at—				
(a) Price paid by canner, 1926	3.1923	2.9596	2.9847	3.0167
(b) Cost of growing tomatoes by survey method, 1926	3.1772	2.8929	2.9677	2.9821
(c) Cost of growing tomatoes by survey method, 1927	3.2177	3.2197	3.2418	3.2325

[1] To avoid disclosing individual operations, costs for Utah district are not shown separately.

TABLE 50.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 1 cans of standards*

[All data for 1926 except as indicated]

	Total		Total
Cost of production:		Cost of production—Continued.	
Raw tomatoes at—		Indirect costs—Continued.	
(a) Price paid by canner, 1926	$0.1343	Maintenance and repairs	$0.0032
(b) On basis of cost of growing tomatoes by survey method, 1926	.1723	Depreciation	.0273
		Insurance	.0111
(c) On basis of cost of growing tomatoes by survey method, 1927	.1305	Taxes	.0026
		Administrative and office expense	.0040
Other direct costs—		Miscellaneous supplies and expense	.0124
Cans	.1863		
Cases	.0231	Total indirect costs	.0932
Labels	.0151		
Labor	.0476	Total cost of production f. o. b. plant, including raw tomatoes at—	
Total other direct costs	.2721	(a) Price paid by canner, 1926	.4990
		(b) Cost of growing tomatoes by survey method, 1926	.5376
Indirect costs—		(c) Cost of growing tomatoes by survey method, 1927	.4958
Labor and superintendence	.0277		
Power, water, and light	.0049		

TABLE 51.—*Canned tomatoes: Cost of production in the United States of one dozen No. 2 cans of standards*

[All data for 1926 except as indicated]

	Districts	
	Maryland	Total United States [1]
Production covered in commission's investigation (dozens)	167,100	175,802
Cost of production:		
Raw tomatoes at—		
(a) Price paid by canner, 1926	$0.3004	$0.2982
(b) On basis of cost of growing tomatoes by survey method, 1926	.3181	.3158
(c) On basis of cost of growing tomatoes by survey method, 1927	.2409	.2398
Other direct costs—		
Cans	.2713	.2717
Cases	.0464	.0476
Labels	.0182	.0186
Labor	.1072	.1073
Total other direct costs	.4431	.4452
Indirect costs—		
Labor and superintendence	.0319	.0328
Power, water, and light	.0097	.0101
Maintenance and repairs	.0072	.0083
Depreciation	.0298	.0299
Insurance	.0114	.0116
Taxes	.0023	.0024
Administrative and office expense	.0057	.0074
Miscellaneous supplies and expense	.0185	.0178
Total indirect costs	.1165	.1203
Total cost of production f. o. b. plant, including raw tomatoes at—		
(a) Price paid by canner, 1926	.8600	.8637
(b) Cost of growing tomatoes by survey method, 1926	.8777	.8813
(c) Cost of growing tomatoes by survey method, 1927	.8005	.8053

[1] To avoid disclosing individual operations, costs for New York, northern Indiana, and Utah districts are not shown separately.

TABLE 52.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 2½ cans of standards*

[All data for 1926 except as indicated]

	Total [1]		Total [1]
Production covered in commission's investigation (dozens)	29,080	Cost of production—Continued.	
Cost of production:		Indirect costs—Continued.	
Raw tomatoes at—		Maintenance and repairs	$0.0233
(a) Price paid by canner, 1926	$0.3019	Depreciation	.1039
(b) On basis of cost of growing tomatoes by survey method, 1926	.3875	Insurance	.0215
(c) On basis of cost of growing tomatoes by survey method, 1927	.4104	Taxes	.0237
Other direct costs—		Administrative and office expense	.0979
Cans	.3506	Miscellaneous supplies and expense	.0529
Cases	.0597	Total indirect costs	.3999
Labels	.0441		
Labor	.1521	Total cost of production, f. o. b. plant, including raw tomatoes at—	
Total other direct costs	.6065	(a) Price paid by canner, 1926	1.3063
Indirect costs—		(b) Cost of growing tomatoes by survey method, 1926	1.3939
Labor and superintendence	.0376	(c) Cost of growing tomatoes by survey method, 1927	1.4168
Power, water, and light	.0391		

[1] This includes costs for plants located in New York, northern Indiana, and Utah districts. To avoid disclosing individual operations, costs for New York, northern Indiana, and Utah districts, are not shown separately.

TABLE 53.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 3 cans of standards*

[All data for 1926 except as indicated]

	Total [1]		Total [1]
Cost of production:		Cost of production—Continued.	
Raw tomatoes at—		Indirect costs—Continued.	
(a) Price paid by canner, 1926	$0.5627	Depreciation	$0.0150
(b) On basis of cost of growing tomatoes by survey method, 1926	.5564	Insurance	.0169
(c) On basis of cost of growing tomatoes by survey method, 1927	.4232	Taxes	.0027
Other direct costs—		Administrative and office expense	.0021
Cans	.3555	Miscellaneous supplies and expense	.0061
Cases	.0774	Total indirect costs	.0949
Labels	.0239		
Labor	.1663	Total cost of production, f. o. b. plant, including raw tomatoes at—	
Total other direct costs	.6231	(a) Price paid by canner, 1926	1.2807
Indirect costs—		(b) Cost of growing tomatoes by survey method, 1926	1.2744
Labor and superintendence	.0352	(c) Cost of growing tomatoes by survey method, 1927	1.1412
Power, water, and light	.0121		
Maintenance and repairs	.0048		

[1] This includes costs for plants located in New York and Maryland districts. To avoid disclosing individual operations, costs for New York and Maryland districts are not shown separately.

TABLE 54.—*Canned tomatoes: Cost of production in the United States of 1 dozen No. 10 cans of standards*

[All data for 1926 except as indicated]

	Districts	
	New York	Total United States [1]
Production covered in commission's investigation (dozens)	.....	5,236
Cost of production:		
Raw tomatoes at—		
(a) Price paid by canner, 1926	$1.1600	$1.3375
(b) On basis of cost of growing tomatoes by survey method, 1926	1.0934	1.9005
(c) On basis of cost of growing tomatoes by survey method, 1927	.9358	1.4829
Other direct costs—		
Cans	.7876	.8177
Cases	.2761	.3158
Labels	.0399	.0392
Labor	.6103	.7100
Total other direct costs	1.7139	1.8737
Indirect costs—		
Labor and superintendence	.2484	.0520
Power, water, and light	.0447	.0501
Maintenance and repairs	.0899	.0468
Depreciation	.1854	.2899
Insurance	.0479	.0898
Taxes	.0314	.0221
Administrative and office expense	.0163	.0504
Miscellaneous supplies and expense	.1852	.1410
Total indirect costs	.8582	.6421
Total cost of production f. o. b. plant, including raw tomatoes at—		
(a) Price paid by canner, 1926	3.7821	3.8533
(b) Cost of growing tomatoes by survey method, 1926	3.7155	4.4163
(c) Cost of growing tomatoes by survey method, 1927	3.5579	3.9987

[1] To avoid disclosing individual oporations, costs for Maryland and Utah are not shown separately.

Tables 55 and 56 give the wholesale foreign value of Italian canned tomatoes f. o. b. Italian ports per case of 24 No. 3 cans and 48 No. 2 cans, respectively.

TABLE 55.—*Canned tomatoes: Wholesale foreign value [1] of Italian canned tomatoes f. o. b. Italian ports, per case of 24 No. 3 cans*

[Source: Italian Chamber of Commerce, New York]

	In lire					In dollars				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
Jan. 1-15	.....	63	64	62	(2)	.....	$2.73	$2.67	$2.50	$2.85
Jan. 16-31	.....	63	64	62	(2)	.....	2.73	2.67	2.50	(2)
Feb. 1-15	.....	63	64	62	70	.....	2.74	2.63	2.50	3.02
Feb. 16-28	.....	63	64	62	70	.....	2.74	2.63	2.50	3.02
Mar. 1-15	.....	63	64	62	70	.....	2.69	2.61	2.49	3.15
Mar. 16-31	.....	63	64	60	70	.....	2.69	2.61	2.41	3.15
Apr. 1-15	.....	63	62	60	70	.....	2.80	2.54	2.41	3.51
Apr. 16-30	.....	70	62	60	(2)	.....	3.11	2.54	2.41	(2)
May 1-15	.....	70	62	60	(2)	.....	3.11	2.52	2.32	(2)
May 16-31	.....	70	62	60	(2)	.....	3.11	2.52	2.32	(2)
June 1-15	.....	(2)	(2)	60	(2)	.....	(2)	(2)	2.20	(2)

[1] The home market value was usually given in lire and has been converted to United States dollars at the average monthly noon rate for buying cable transfers in New York quoted by the Federal Reserve Board.

[2] Value given in United States dollars and not in lire.

[3] No quotation.

TABLE 55.—*Canned tomatoes: Wholesale foreign value of Italian canned tomatoes f. o. b. Italian ports, per case of 24 No. 3 cans*—Continued

	In lire					In dollars				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
June 16-30	.....	(1)	(1)	60	(1)	.....	(1)	(1)	$2.20	(1)
July 1-15	.....	(1)	(1)	60	(1)	.....	(1)	(1)	2.01	(1)
July 16-31	.....	(1)	(1)	68	(1)	.....	(1)	(1)	2.28	(1)
Aug. 1-15	.....	(1)	(1)	68	(1)	.....	(1)	(1)	2.24	$2.90
Aug. 16-31	.....	(1)	(1)	72	(1)	.....	(1)	(1)	2.37	2.90
Sept. 1-15	66	(1)	63	70	(1)	$2.93	(1)	$2.56	2.57	2.90
Sept. 16-30	66	58	63	70	(1)	2.93	$2.54	2.56	2.57	2.90
Oct. 1-15	60	58	65	(1)	(1)	2.71	2.52	2.59	2.65	2.90
Oct. 16-31	60	60	65	(1)	(1)	2.71	2.61	2.59	2.65	2.90
Nov. 1-15	60	63	65	(1)	(1)	2.61	2.73	2.60	(1)	2.90
Nov. 16-30	60	63	65	(1)	.....	2.61	2.73	2.60	2.85	.....
Dec. 1-15	60	63	65	(1)	.....	2.60	2.71	2.62	2.85	.....
Dec. 16-31	63	63	65	(1)	.....	2.73	2.71	2.62	2.85	.....

[1] Value given in United States dollars and not in lire. [1] No quotation.

TABLE 56.—*Canned tomatoes: Wholesale foreign value [1] of Italian canned tomatoes f. o. b., Italian ports, per case of 48 No. 2 cans*

[Source: Italian Chamber of Commerce in New York]

	In lire					In dollars				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
Jan. 1-15	.....	75	76	76	(1)	.....	$3.26	$3.17	$3.07	$3.60
Jan. 16-31	.....	75	76	76	(1)	.....	3.26	3.17	3.07	(1)
Feb. 1-15	.....	75	76	76	85	.....	3.26	3.12	3.06	3.67
Feb. 16-28	.....	75	76	76	85	.....	3.26	3.12	3.06	3.67
Mar. 1-15	.....	75	76	76	85	.....	3.21	3.09	3.06	3.83
Mar. 16-31	.....	75	76	74	85	.....	3.21	3.09	2.97	3.83
Apr. 1-15	.....	75	74	74	85	.....	3.33	3.04	2.97	4.27
Apr. 16-30	.....	82	74	74	(1)	.....	3.64	3.04	2.97	(1)
May 1-15	.....	82	74	74	(1)	.....	3.64	3.01	2.87	(1)
May 16-31	.....	82	74	74	(1)	.....	3.64	3.01	2.87	(1)
June 1-15	.....	(1)	(1)	74	(1)	.....	(1)	(1)	2.71	(1)
June 16-30	.....	(1)	(1)	74	(1)	.....	(1)	(1)	2.71	(1)
July 1-15	.....	(1)	(1)	74	(1)	.....	(1)	(1)	2.48	(1)
July 16-31	.....	(1)	(1)	82	(1)	.....	(1)	(1)	2.75	(1)
Aug. 1-15	.....	(1)	(1)	82	(1)	.....	(1)	(1)	2.70	3.75
Aug. 16-31	.....	(1)	(1)	86	(1)	.....	(1)	(1)	2.83	3.75
Sept. 1-15	81	(1)	77	84	(1)	$3.59	(1)	3.13	3.08	3.75
Sept. 16-30	81	70	77	84	(1)	3.59	3.07	3.13	3.08	3.75
Oct. 1-15	72	70	79	(1)	(1)	3.25	3.05	3.15	3.35	3.75
Oct. 16-31	72	72	79	(1)	(1)	3.25	3.13	3.15	3.35	3.75
Nov. 1-15	72	75	79	(1)	(1)	3.14	3.25	3.16	(1)	3.75
Nov. 16-30	72	75	79	(1)	.....	3.14	3.25	3.16	3.60	.....
Dec. 1-15	72	75	79	(1)	.....	3.12	3.23	3.18	3.60	.....
Dec. 16-31	75	75	79	(1)	.....	3.25	3.23	3.18	3.60	.....

[1] The home market value was usually given in lire and has been converted to United States dollars at the average monthly noon rate for buying cable transfers in New York quoted by the Federal Reserve Board.
[1] Value given in United States dollars and not in lire.
[1] No quotation.

Tables 57 and 58 show the details of the analysis of invoices of shipments of canned tomatoes from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive, in terms of cases each holding 24 No. 3 cans and 48 No. 2 cans, respectively.

TABLE 57.—*Canned tomatoes: Analysis of invoices of shipments of canned tomatoes, 24 No. 3 cans to the case, from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

Year and month	Price f. o. b. Naples		Ocean freight		Marine insurance		Cases and packing		Inland freight	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value
1926										
September	50,655	$128,328.94	47,430	$8,260.05	15,715	$283.87	48,280	$8,842.92	11,585	$333.39
October	43,942	110,540.12	40,602	7,019.10	14,842	169.98	24,798	6,156.90	11,704	574.27
November	107,264	282,071.61	94,278	16,725.31	17,654	230.29	78,932	15,029.86	51,015	3,158.34
December	74,808	196,639.99	69,833	12,454.93	16,502	220.71	62,177	12,950.62	29,412	1,983.23
1927										
January	56,410	155,667.02	52,245	9,139.50	5,060	167.55	44,462	9,290.98	17,818	1,337.77
February	39,618	113,040.91	35,058	6,646.72	10,085	130.07	31,953	6,634.28	10,354	631.28
March	26,133	74,335.96	25,053	5,030.67	5,645	77.91	24,228	5,113.14	5,075	231.65
April	30,747	82,231.94	28,507	5,508.75	2,850	30.05	25,056	5,699.03	9,450	434.10
May	12,000	35,372.98	11,650	2,293.98	2,350	35.16	13,300	3,283.62	5,650	259.84
June	10,915	32,217.00	10,315	2,002.05	2,025	30.06	10,515	2,814.05	1,450	46.71
July	16,175	48,523.75	15,350	3,141.14	4,975	94.92	14,675	4,133.57	3,600	232.20
August	16,780	51,250.86	15,680	3,301.46	9,480	120.01	16,780	5,208.68	2,000	124.65
Total	485,447	1,310,221.08	446,061	81,523.66	107,183	1,590.18	395,126	85,157.65	159,113	9,347.43
Weighted average		2.699		.183		.015		.216		.059

Year and month	Loading and shipping		All other charges		Value on which duty was collected		Declared weight	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total pounds
1926								
September	34,240	$1,329.05	5,050	$325.13	47,265	$125,219.19	40,670	2,157,364
October	25,354	1,213.80	34,227	805.36	41,411	111,315.89	26,989	1,542,397
November	56,092	2,028.56	12,037	1,378.71	99,743	273,484.79	62,536	3,575,314
December	31,614	1,276.56	9,005	445.54	72,542	205,402.83	45,610	2,598,164

1927								
January	20,510	1,044.85	39,768	1,086.69	54,060	157,107.00	41,960	2,307,343
February	21,358	978.59			39,618	121,607.78	27,622	1,498,055
March	12,318	537.58	4,410	314.98	26,278	81,828.18	20,645	1,160,117
April	17,821	469.20			29,171	94,843.85	23,451	1,247,248
May	3,750	161.00			12,350	41,008.50	11,475	626,486
June	5,865	283.09			10,640	34,166.00	9,015	499,963
July	7,175	430.45			13,875	44,371.25	7,975	473,115
August	9,960	735.62	1,600	105.61	16,955	53,716.25	12,575	736,342
Total	246,077	10,488.35	106,097	4,462.02	463,908	1,344,073.51	330,543	18,421,906
Weighted average		.043		.042		2.897		55.73

TABLE 58.—*Canned tomatoes: Analysis of invoices of shipments of canned tomatoes, 48 No. 2 cans to the case, from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

Year and month	Price f. o. b. Naples		Ocean freight		Marine insurance		Cases and packing		Inland freight	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value
1926										
September	28,609	$91,602.00	22,544	$3,897.98	6,565	$117.49	25,730	$4,441.42	6,430	$237.77
October	21,634	67,181.56	20,519	3,678.80	10,943	146.29	17,692	2,936.15	8,082	731.70
November	47,665	152,408.93	43,460	7,662.84	6,560	86.37	35,880	6,895.84	22,300	1,536.87
December	40,686	131,210.36	38,326	6,865.15	9,045	120.50	32,319	6,723.04	16,879	1,333.79
1927										
January	26,240	90,475.92	24,565	4,406.46	1,240	15.24	20,102	4,434.39	7,745	562.14
February	17,309	63,336.35	15,009	2,839.14	5,539	77.86	13,804	2,842.51	4,145	221.69
March	13,807	48,863.33	13,107	2,483.57	2,845	37.13	12,178	2,427.87	975	21.05
April	16,077	54,677.25	15,377	2,987.84	1,565	18.49	13,818	2,958.04	5,175	257.07
May	5,750	23,325.14	5,500	1,081.70	1,550	23.15	5,250	1,304.19	1,700	144.48
June	6,275	24,526.00	5,850	1,193.76	1,750	26.08	6,175	1,581.52	275	11.84
July	11,120	42,915.50	9,945	1,937.29	3,300	58.39	10,090	2,719.71	2,095	149.13
August	11,910	46,861.06	11,311	2,429.05	5,560	79.49	11,461	3,154.52	3,300	362.23
Total	247,082	837,383.40	225,513	41,463.58	56,462	806.48	204,499	42,419.20	79,101	5,569.76
Weighted average		3.389		.184		.014		.207		.070

TABLE 58.—*Canned tomatoes: Analysis of invoices of shipments of canned tomatoes, 48 No. 2 cans to the case, from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*—Continued

Year and month	Loading and shipping		All other charges		Value on which duty was collected		Declared weight	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total pounds
1926								
September	14,880	$536.37	1,275	$99.72	22,729	$77,269.13	15,725	927,970
October	15,722	731.70	14,973	269.37	21,234	69,656.17	10,136	578,349
November	24,480	967.25	3,490	452.20	45,770	155,980.80	26,680	1,568,506
December	18,204	694.39	3,830	201.65	40,411	146,006.12	22,479	1,338,846
1927								
January	9,383	416.88	16,925	373.40	24,805	92,476.04	17,414	997,349
February	8,284	357.59			17,309	66,861.90	13,299	722,824
March	6,365	250.77	2,358	168.14	13,732	52,664.95	10,843	606,124
April	11,618	460.82			15,243	60,305.58	9,525	524,937
May	1,750	88.05			6,000	25,496.50	4,225	241,683
June	3,450	198.62			5,750	23,782.50	4,600	261,186
July	4,736	270.94			9,785	40,412.00	7,040	395,931
August	5,169	292.09	900	63.91	11,469	46,861.06	6,825	440,384
Total	124,021	5,255.47	43,751	1,628.39	284,228	857,753.75	148,791	8,604,089
Weighted average		.042		.037		3.682		57.82

Table 59 shows the details of the analysis of invoices of shipments of tomato paste (two hundred 6-ounce cans to the case) from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive.

TABLE 59.—*Tomato paste: Analysis of invoices of shipments of tomato paste (two hundred 6-ounce cans to the case) from Naples, Italy, to New York, N. Y., September, 1926, to August, 1927, inclusive*

Year and month	Price f. o. b. Naples		Ocean freight		Marine insurance		Cases and packing	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value
1926								
September	6,690	$60,489.57	6,000	$1,920.58	1,300	$18.96	6,000	$1,207.48
October	1,282	11,273.26	1,200	357.69			2,450	544.69
November	5,930	56,015.39	4,725	1,222.02	4,125	87.10	7,695	2,137.44
December	1,740	15,650.53	1,350	384.24	350	10.78	3,350	1,102.15
1927								
January	3,510	32,327.33	2,050	555.46	1,800	22.68	2,800	741.71
February	3,560	33,145.77	1,810	512.73	1,000	32.48	2,810	794.27
March	1,900	17,320.06	550	152.80	50	2.60	650	182.07
April	3,964	36,650.18	3,430	1,153.51	1,000	34.22	3,930	1,045.25
May	3,600	33,966.56	2,000	562.95	2,000	70.49	2,800	808.80
June								
July	1,000	9,629.37	1,000	332.40	1,000	38.73	1,000	360.10
August	2,200	21,094.43	2,200	848.37	1,500	48.87	2,200	719.82
Total	35,396	327,565.47	26,315	8,032.75	14,125	366.91	35,675	9,703.78
Weighted average per case		9.254		.301		.026		.272

Year and month	Loading and shipping		All other charges		Value on which duty was collected		Declared weight	
	Number of cases	Total value	Number of cases	Total value	Number of cases	Total value	Number of cases	Total pounds
1926								
September	6,000	$224.98	4,700	$31.50	6,140	$55,984.00	7,015	615,079
October	1,200	34.24	1,300	63.77	1,007	9,070.00	4,107	367,976
November	4,225	339.95	7,685	41.79	6,355	59,653.28	8,892	828,121
December	350	30.17	3,000	42.60	5,225	48,435.00	7,240	604,001
1927								
January	2,050	185.12	1,050	127.40	4,195	39,807.70	4,285	410,182
February	1,350	112.59	1,560	5.82	2,560	24,814.00	3,560	329,010
March	100	9.57	650	14.18	1,900	18,186.60	2,700	259,345
April	1,030	96.20	2,930	47.60	3,984	40,388.47	3,984	346,771
May	2,000	213.80	800	19.24	3,600	36,500.00	3,600	330,312
June					1,020	10,472.00	1,020	118,000
July	1,000	110.80			2,048	20,956.00	2,048	225,291
August	1,500	162.90	700	35.36	3,147	32,031.75	3,147	331,795
Total	20,805	1,520.32	24,375	429.26	41,181	396,298.80	51,598	4,765,683
Weighted average per case		.073		.018		9.62		92.37

Table 60 shows the wholesale foreign value of Italian tomato paste, f. o. b. Italian ports, for a case of two hundred 6-ounce cans.

TABLE 60.—*Tomato paste: Wholesale foreign value [1] of Italian tomato paste, f. o. b. Italian ports, per case of two hundred 6-ounce cans*

[Source: Italian Chamber of Commerce in New York]

	In lire					In dollars				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
Jan. 1-15	.....	210	185	200	(3)	.....	$9.11	$7.71	$8.08	$9.25
Jan. 16-31	.....	210	185	200	(3)	.....	9.11	7.71	8.08	(3)
Feb. 1-15	.....	210	185	200	(3)	.....	9.12	7.60	8.05	9.50
Feb. 16-28	.....	210	185	200	(3)	.....	9.12	7.60	8.05	9.50
Mar. 1-15	.....	210	185	200	(3)	.....	8.98	7.53	8.03	9.50
Mar. 16-31	.....	210	185	200	(3)	.....	8.98	7.53	8.03	9.50
Apr. 1-15	.....	210	185	200	(3)	.....	9.33	7.59	8.04	9.50
Apr. 16-30	.....	210	185	200	(3)	.....	9.33	7.59	8.04	(3)
May 1-15	.....	210	185	200	(3)	.....	9.32	7.52	7.75	(3)
May 16-31	.....	210	185	200	(3)	.....	9.32	7.52	7.75	(3)
June 1-15	.....	(3)	(3)	(3)	(3)	.....	(3)	(3)	(3)	(3)
June 16-30	.....	(3)	(3)	(3)	(3)	.....	(3)	(3)	(3)	(3)
July 1-15	.....	(3)	(3)	(3)	(3)	.....	(3)	(3)	(3)	(3)
July 16-31	.....	(3)	(3)	(3)	(3)	.....	(3)	(3)	(3)	(3)
Aug. 1-15	.....	(3)	(3)	(3)	(3)	.....	(3)	(3)	(3)	9.75
Aug. 16-31	.....	(3)	(3)	250	(3)	.....	(3)	(3)	8.24	9.75
Sept. 1-15	220	(3)	200	240	(3)	$9.76	(3)	8.13	8.81	9.75
Sept. 16-30	220	200	200	240	(3)	9.76	8.76	8.13	8.81	9.75
Oct. 1-15	210	200	210	(3)	(3)	9.48	8.70	8.38	9.00	9.75
Oct. 16-31	210	200	210	(3)	(3)	9.48	8.70	8.38	9.00	9.75
Nov. 1-15	210	200	210	(3)	(3)	9.15	8.67	8.41	(3)	9.75
Nov. 16-30	210	185	200	(3)	.....	9.15	8.02	8.01	9.00	9.75
Dec. 1-15	210	185	200	(3)	.....	9.11	7.96	8.06	9.00	9.75
Dec. 16-31	210	185	200	(3)	.....	9.11	7.96	8.06	9.00	9.75

[1] The home market value was usually given in lire and has been converted to United States dollars at the average monthly noon rate for buying cable transfers in New York quoted by the Federal Reserve Board.
[2] Value given in United States dollars and not in lire.
[3] No quotation.

Table 61 gives the carload freight rates on canned tomatoes and tomato paste in the United States from canning points where the commission obtained costs to New York City.

TABLE 61.—*Canned tomatoes and tomato paste: Carload freight rates*

[Rates in cents per 100 pounds—minimum weight, 36,000 pounds unless otherwise noted]

To New York, N. Y., from—	1926		1927		1928	
	All rail	Rail-water	All rail	Rail-water	All rail	Rail-water
Hancock Bridge, N. J.[1]	21.5	.....	21.5	.....	21.5	.....
Bridgeton, N. J.	21.5	.....	21.5	.....	21.5	.....
Holley, N. Y.	32.0	.....	32.0	.....	32.0	.....
Lyndonville, N. Y.	31.0	.....	31.0	.....	31.0	.....
Centerville, Md.	27.5	.....	[2] 27.0	.....	27.0	.....
Easton, Md.	27.5	.....	[2] 27.0	.....	27.0	.....
Ridgely, Md.	27.5	.....	[2] 27.0	.....	27.0	.....
Hurlock, Md.	27.5	.....	[2] 27.0	.....	27.0	.....
Finchville, Md.[3]	27.5	.....	[2] 27.0	.....	27.0	.....
Concord, Md.	27.5	.....	27.5	.....	27.5	.....
Galeston, Md.[4]	27.5	.....	[2] 27.0	.....	27.0	.....
Reids Grove, Md.	27.5	.....	27.5	.....	[5] 27.0	.....
Berlin, Md.	27.5	.....	[2] 27.0	.....	27.0	.....
Denton, Md.	27.5	.....	27.5	.....	27.5	.....
Hartly, Del.	27.5	.....	[2] 27.0	.....	27.0	.....

[1] Rates apply from Salem, N. J., nearest railroad station.
[2] Effective Dec. 27, 1927.
[3] Rates apply from Oak Grove, Del., nearest railroad station.
[4] Rates apply from Seaford, Del., nearest railroad station.
[5] Effective May 5, 1928.

TABLE 61.—*Canned tomatoes and tomato paste: Carload freight rates*—Continued

[Rates in cents per 100 pounds—minimum weight, 36,000 pounds unless otherwise noted]

To New York, N. Y., from—	1926		1927		1928	
	All rail	Rail-water	All rail	Rail-water	All rail	Rail-water
Greentown, Ind.	53.0	51.0	53.0	51.0	53.0	51.0
Kokomo, Ind.	53.0	51.0	53.0	51.0	53.0	51.0
Sharpsville, Ind.	53.0	----	53.0	----	53.0	----
Windfall, Ind.	52.5	50.5	52.5	50.5	52.5	50.5
Vallonia, Ind.	56.5	54.5	56.5	54.5	56.5	54.5
Elnora, Ind.	58.0	56.0	58.0	56.0	58.0	56.0
Paoli, Ind.	56.5	54.5	56.5	54.5	56.5	54.5
French Lick, Ind.	56.5	54.5	56.5	54.5	56.5	54.5
Marengo, Ind.	59.5	57.5	59.5	57.5	59.5	57.5
Orleans, Ind.	56.5	54.5	56.5	54.5	56.5	54.5
Ogden, Utah.	[6] 128.0	[6] [8] 114.5	[6] 128.0	[6] [8] 114.5	[6] 128.0	[6] [8] 114.5
Woods Cross, Utah.	[7] 93.5	[7] [8] 4.0	[7] 93.5	[7] [8] 94.0	[7] 93.5	[7] [8] 94.0
Wasatch, Utah.	[6] 139.0 [7] 104.5	[6] [8] 125.5 [7] [8] 105.0	[6] 139.0 [7] 104.5	[6] [8] 125.5 [7] [8] 105.0	[6] 139.0 [7] 104.5	[6] [8] 125.5 [7] [8] 105.0
Ontario, Calif. El Monte, Calif. Burbank, Calif. Chino, Calif.	[6] 128.0 [7] 105.0	[6] 61.5 [6] [9] 59.5	[6] 128.0 [7] 105.0	[6] 61.5 [6] [9] 59.5	[6] 128.0 [7] 105.0	[6] 61.5 [6] [9] 59.5
San Jose, Calif.	[6] 128.0 [7] 105.0	[8] 53.0 [8] 53.0	[6] 128.0 [7] 105.0	[8] 53.0 [8] 53.0	[6] 128.0 [7] 105.0	[8] 53.0 [8] 53.0
Fruitvale, Calif.	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0
San Leandro, Calif.	[6] 128.0 [7] 105.0	[8] 50.0 [8] 50.0	[6] 128.0 [7] 105.0	[8] 50.0 [8] 50.0	[6] 128.0 [7] 105.0	[8] 50.0 [8] 50.0
Santa Clara, Calif.	[6] 128.0 [7] 105.0	[8] 53.0 [8] 53.0	[6] 128 0 [7] 105.0	[8] 53.0 [8] 53.0	[6] 128.0 [7] 105.0	[8] 53.0 [8] 53.0
Oakland, Calif.	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0	[6] 128.0 [7] 105.0	[8] [10] 45.0 [8] [10] 45.0
Lorenzo, Calif.	[6] 128.0 [7] 105.0	[8] [11] 50.0 [8] [11] 50.0	[6] 128.0 [7] 105.0	[8] 50.0 [8] 50.0	[6] 128.0 [7] 105.0	[8] 50.0 [8] 50.0
Stockton, Calif.	[6] 128.0 [7] 105.0	[8] 52.0 [8] 52.0	[6] 128.0 [7] 105.0	---- [8] 52.0	[6] 128.0 [7] 105.0	[8] 52.0 [8] 52.0
Santa Rosa, Calif.	[6] 128.0 [7] 105.0	[8] 62.0 [8] 62.0	[6] 128.0 [7] 105.0	[8] [12] 60.0 [8] [12] 60.0	[6] 128.0 [7] 105.0	[8] 60.0 [8] 60.0
North Branch, Calif.	[6] 128.0 [7] 105.0	[8] 72.5 [8] 72.5	[6] 128.0 [7] 105.0	[8] 72.5 [8] 72.5	[6] 128.0 [7] 105.0	[8] 72.5 [8] 72.5
Sunnyvale, Calif.	[6] 128.0 [7] 105.0	[8] 52.0 [8] 52.0	[6] 128.0 [7] 105.0	[8] 52.0 [8] 52.0	[6] 128.0 [7] 105.0	[8] 52.0 [8] 52.0
Sacramento, Calif.	[6] 128.0 [7] 105.0	[8] 61.0 [6] [8] 58.0	[6] 128.0 [7] 105.0	[8] 61.0 [6] [8] [13] 57.0	[6] 128.0 [7] 105.0	[8] 61.0 [6] [8] 57.0
Lockeford, Calif.	[6] 128.0 [7] 105.0	[8] 61.0 [8] 61.0	[6] 128.0 [7] 105.0	[8] 61.0 [8] 61.0	[6] 128.0 [7] 105.0	[8] 61.0 [8] 61.0

[6] Carload minimum weight 40,000 pounds.
[7] Carload minimum weight 60,000 pounds.
[8] Add 15 cents per ton, 2,000 pounds, for California State toll at Oakland or San Francisco and about three-eighths of 1 per cent ad valorem for marine insurance. A charge of 57 cents per hour for straight time is charged against shipments if handled at the port by the railroad and 90 cents per hour for straight time if handled by the steamship company.
[9] Rates include wharfage and handling at Los Angeles Harbor (San Pedro or Wilmington). Add about three-eighths of 1 per cent ad valorem to cover cost of marine insurance.
[10] Fruitvale and Oakland are in the switching limits of Oakland; if shipments are handled by the railroads from industries a switching charge ranging from $3.60 to $11 per car is assessed.
[11] Effective July 18, 1926.
[12] Effective Sept. 27, 1927.
[13] Effective Nov. 1, 1927.

SUPPLEMENTAL REPORT OF THE UNITED STATES TARIFF COMMISSION TO THE PRESIDENT OF THE UNITED STATES

LETTER OF TRANSMITTAL

MAY 25, 1929.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT: In response to your request of May 14, the commission has reviewed the cost data secured in its investigations of canned tomatoes and tomato paste.

No additional information concerning costs of production is available. Factors that may be taken into consideration in ascertaining differences in costs of production for the purposes of section 315 are referred to in the attached report, which is submitted by the commission in response to your request that we reconsider the report on canned tomatoes and tomato paste in the light of any additional information which may be available since the report was made.

For your convenience, the original report is inclosed herewith.

Respectfully,

THOMAS O. MARVIN, *Chairman.*

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SUPPLEMENTAL REPORT OF THE UNITED STATES TARIFF COMMISSION TO THE PRESIDENT OF THE UNITED STATES

UNITED STATES TARIFF COMMISSION,
Washington, May 25, 1929.

To the PRESIDENT:

In response to your request of May 14, 1929, the commission has reexamined the data in its possession with respect to canned tomatoes and tomato paste. No additional information with respect to these products has been obtained by the commission which would indicate any modification in the comparative cost data in the report. In the commission's report concerning canned tomatoes and tomato paste it was shown that more than the maximum increase in the duty permissible under the law was indicated with respect to canned tomatoes, and that such evidence of costs of production as was obtained by the commission indicated a maximum reduction of the duty on tomato paste. There are, however, a number of factors which can not be adequately reduced to the arithmetical terms of section 315, but which should receive consideration. These competitive factors are: (1) Consumers in the United States use imported canned tomatoes and tomato paste interchangeably; (2) the preference for Italian tomato paste by consumers in the United States, most of whom are of Italian origin or descent, is indicated in the higher price paid for imported paste than for domestic paste.

With respect to the substitution of tomato paste for canned tomatoes the evidence is clear, but it is not reducible to terms of differences in costs of production.

Under the tariff act of 1913, when both canned tomatoes and paste were dutiable at 25 per cent ad valorem, the imports of tomato products were largely in the form of paste. It is estimated that about 300,000 cases were imported annually in the years up to and including 1915. The imports of both paste and canned tomatoes declined during the war. After the enactment of the tariff act of 1922, in which paste is dutiable at 40 per cent and canned tomatoes at 15 per cent, the imports largely took the form of canned tomatoes. A calculation of the imports of canned tomatoes reduced to the form and concentration of tomato paste indicates that the total imports in 1928 of tomato products are equivalent to about 350,000 cases of paste. Of this equivalent figure about two-thirds was in the form of canned tomatoes. It appears, therefore, that the total imports of tomato products in 1928 were about the same as before the war. The change is largely one of form. The domestic production of canned tomatoes has declined in recent years, however, and the percentage of consumption supplied by imports has increased from 4.3 per cent in 1923 to 17.89 per cent in 1928.

Import statistics of canned tomatoes and tomato paste are not shown separately prior to 1922; available import statistics of canned tomatoes and tomato paste under the tariff act of 1922 are as follows:

United States imports of canned tomatoes and tomato paste

	Canned tomatoes		Tomato paste	
	Quantity	Value	Quantity	Value
	Pounds		*Pounds*	
1922 (Sept. 22-Dec. 31)	11,537,284	$701,461	1,867,555	$204,447
1923	33,796,201	1,945,143	7,139,441	753,779
1924	53,816,691	2,585,364	10,126,583	962,393
1925	86,237,642	4,054,840	18,484,464	1,661,101
1926	84,649,219	4,204,900	15,912,247	1,502,831
1927	93,771,906	5,200,006	13,857,335	1,423,729
1928	93,646,672	5,236,361	10,011,199	1,035,920

With respect to the price premium paid for imported tomato paste, the evidence is likewise clear that Italian consumers will pay more for paste imported from Italy than they will for the domestic paste, but the exact degree of preference expressed in terms of cents per can is difficult to determine. In 1928 the preference ranged from 2 cents to 3 cents per can in retail stores, but this figure can not be used in any accurate manner in making adjustments in differences in costs of production under the provisions of section 315; therefore no attempt has been made by the commission to make adjustments. If such an adjustment were made, it would decrease the cost of imported tomato paste, or, conversely, increase the cost of domestic paste.

Since the report upon canned tomatoes and tomato paste was completed by the commission the Committee on Ways and Means of the House of Representatives has reported in H. R. 2667 the same duty upon canned tomatoes and tomato paste, namely, 25 per cent ad valorem, and by a committee amendment a 40 per cent ad valorem duty on canned tomatoes and tomato paste is proposed, the same rate provided in the tariff act of 1922 on tomato paste.

The cost comparisons presented in the commission's report to the President with respect to canned tomatoes and tomato paste are based upon cost differences alone. Consideration of advantages and disadvantages in competition, price preferences, and the interchangeability of tomato paste and canned tomatoes are important factors that should be considered in the readjustment of the duties upon these commodities, but they were not reflected in the cost comparisons shown in the commission's report, for they can not be accurately and specifically measured in costs per unit of product.

In the investigations of the costs of production of canned tomatoes and tomato paste the commission secured domestic cost-of-production data from the producers of these articles, but was unable to secure farm costs of production of tomatoes in Italy, and therefore found it necessary to resort to invoice prices as evidence of costs of production in the principal competing country. Proceeding under paragraph 2 of subdivision (c) of section 315, which authorizes the President to take into consideration wholesale prices of domestic and foreign articles in the principal markets of the United States, the commission in its report submitted cost comparisons based upon the invoice prices or wholesale prices of tomato paste.

The rate of duty found by the commission necessary to equalize differences in costs of production of canned tomatoes including costs of transportation, but not taking into consideration other factors of competition such as the price preference in favor of Italian canned tomatoes, is 30.67 per cent ad valorem. The maximum increase permissible under section 315, however, is from 15 per cent to 22½ per cent ad valorem. The existing tariff rates (15 per cent ad valorem on canned tomatoes and 40 per cent ad valorem on tomato paste) represent an obvious maladjustment. The increase of duty on canned tomatoes to 22½ per cent will correct in part the maladjustment in the existing rates of duty on canned tomatoes and tomato paste.

Respectfully submitted.

THOMAS O. MARVIN,
Chairman.
ALFRED P. DENNIS,
Vice Chairman.
EDGAR B. BROSSARD,
SHERMAN J. LOWELL,
LINCOLN DIXON,
FRANK CLARK,
Commissioners.

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