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PROCESSING COSTS FOR CANNED PEACHES

by

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Global trade in canned peaches changed drastically over the past decade. World exports in 1994 were double their average in 1980–83. Greek processors accounted for 63 percent of exports in 1994 as compared to 37% in the earlier period; and California's share dropped from 13 percent to 3 percent. These changes have been driven by differences in processing costs, government policies concerning production and trade, consumer preferences, and by industry strategies. This report focuses on the first of these influencing factors: processing costs. It updates previous data using various cost and price trends and provides new data where available. The results are subject to limitations due to their anecdotal nature but show a range of $7 per standard case (24/2-1/2) between the lowest and highest cost producers. South Africa, Greece and Chile are grouped among the low-cost producers; California, Australia and Italy are in the mid range of costs; and Argentina and Spain are at the high end.

Data and Limitations

Data concerning processing costs are not readily available because they are considered proprietary by industry members. This precluded the development of industry cost curves reflecting the range of costs among processors. However, some data are collected by national government agencies to assist in the calculation of permissible processing subsidies, and other data are developed by trade associations, individual processors, and industrial engineers for a variety of economic and political purposes. These data are more often anecdotal and are presented as "typical" based on industry experience. The cost estimates used in this report were gathered from government and industry sources and cross-checked through subsequent interviewing and contact with industry members. They are believed to represent medium and large-size processors in these countries. Much of the industry commentary is derived from reports of the USDA Foreign Agricultural Service.

To support useful comparisons between countries and to identify areas of particular significance, data were sought on the following inputs:

Cans, cartons and labels	Fruit	Sugar and syrup
Fuel and electricity	Labor	Citric acid and soda
Cooling and storage	Overhead costs	Waste and loss
EU Subsidy	Sugar rebate	Total Costs

It is important to recognize that costs vary according to the quality of the raw product used, the characteristics of the final product mix, and the quality of other inputs used. They may also vary according to how overhead and other fixed costs are allocated to peach processing. For example, variations in sugar costs may reflect differences in the average brix of total output and differences in container costs may result partly from different qualities of cartons or labels. Australia's low sugar cost is due, in part, to the fact that over one-half of output is packed in juice rather than syrup. Changes in raw product quality lead to changes in the number of cases produced per ton of raw product. In California, the average conversion was 55 cases per U.S. ton in 1994 but only 51.1 cases in 1995. Similar changes occur in each producing country and can change relative costs among them. Despite these variations, Greece, South Africa and Chile remained the low-cost producers in 1994, just as they were in 1988. Argentina and Spain, however, moved from the middle group to the high-cost group.

The processing costs reported here have been derived from the most recent reports available and, where current data are lacking, updated from estimates obtained during earlier field research. Standard measures of price changes such as the consumer price index, industrial price index or agricultural price index were used for updating purposes. Since these indexes are aggregated and based on many products, they are not a perfect representation of the cost increases in the canned fruit industry. They are, however, the best available indicators of how costs may have evolved over the last 6–7 years. Policy or marketing changes which affect costs and industry strategy are considered where applicable.

EUROPEAN UNION

The European Union dominates the production of canned peaches, packing almost half of the world's production. Following accession to the EU and implementation of the Common Agricultural Policy (CAP), Greece expanded its peach orchards and established a world-class canning industry that currently accounts for almost two-thirds of the world's exports. The industries in Italy, Spain and France have remained less significant and are not major exporters outside of the EU. The CAP provides each country minimum grower prices, processing aids and a large withdrawal program which has encouraged surplus production. In addition to being the largest producer, the European Union is also the largest consumer of canned peaches. However, it has shifted from being a net importer to being the world's largest exporter.

GREECE

Greece is the world's second largest producer of canned peaches and provides two-thirds of the EU's supply. Its pack in 1994 was 375,354 tons,[1] but dropped to an estimated 320,000 tons in 1995. Growers delivered 294,000 metric tons of raw product to processors in 1994, implying a recovery of 62.4 standard cases (24/2-1/2) per metric ton of raw product, significantly above the recovery of 52 to 57 cases estimated by the Greek Processors' Association. The estimated costs for 1994 production ranged between $11.99 and $15.89 per standard case, 24/2-1/2, after deducting the EU processing aid, the sugar price rebate for product exported outside the EU, and a minor fuel price rebate. The range reflects differences in the quality and mix of production (Table 1). Prices in early 1995 appeared to be above these costs. USDA/FAS reported prices for choice quality canned peach halves in mid-January 1995 at about $18.27 to $19.58 (28 to 30 DM) per case, 24/1, ex-factory; good standard quality was at $15.66 to $16.97 per case (24 to 26 DM at $1.00=1.5324 DM); and standard grade was at $14.36 to $15.01 per case. California processor prices for choice halves in 24/2-1/2 cases were reported to be $19.25–$19.50, relatively close to the Greek price.

[1] This report uses metric tons unless otherwise specified.

The total cost for producing a standard case (24/2 1/2) of choice halves in 1995 is estimated to be $19.25, based on current peach prices and projected past data (Table 1). After deduction of the EU processing aid and the sugar and fuel rebates, the net cost is $16.10 for product exported to non-EU destinations. The Greek Agricultural Processors' Association estimated that costs ranged between $15.11 and $19.20 in 1994/95, depending on quality and product mix considerations. The net cost, ex plant, for export outside of the EU ranged from $11.99 to $15.89 per case, as noted above. These estimates have been converted to standard 24/2-1/2 cases and are based on critical assumptions described in the following sections.

The projected estimate for 1995 corresponds closely with the high cost/high quality estimate provided by canners for 1994/95. The starting points for the projection were current prices reported for peaches and EU subsidies and earlier cost estimates by the Agricultural Bank of Greece (1991). Current (1995) estimates were received for container costs (cans, cartons, labels) and for overhead costs from industry consultants and they correspond closely with the high estimates for 1994 provided by the Processor Association. Other costs were projected from data of the Agricultural Bank of Greece for 1991/92, using the International Monetary Fund report of the Greek consumer price index, and converting the results to dollars with the 1995 exchange rate ($1=237 dr). The resulting costs were converted from a case of 24/1 to a standard case of 24/2-1/2 cans by multiplying relevant input costs (peaches, sugar/syrup, cooling, transport, chemicals, and losses) by a conversion factor of 0.9667.

In 1988, the median cost of the 12 comparable estimates obtained was $15.21, before subsidies, for a standard case of 24 size 2-1/2 cans of choice quality peach halves. The EU processing aid lowered the cost to $12.24 per case and the sugar subsidy for product exported outside of the EU lowered it still further to $11.17 per case. The comparable cost in 1994 (based on the average of the high and low estimates provided by the Greek Processors' Association) was $13.94, an increase of 25 percent from the 1988 level.

The estimated cost for peaches in 1994 and 1995 is based on minimum grower prices established annually by the Commission of the EU. They are determined in ECUs and converted to national currencies through the politically negotiated "internal rate" of exchange. In 1995, the minimum grower price was $353 per ton

and the aid to processors was the equivalent to $132 per ton, resulting in a net raw product cost of $221 per ton. The trade-weighted average of non-EU prices for peaches for processing was calculated to be $217 per metric ton.

The EU operates a fresh fruit marketing program that authorizes the destruction of "excess" fresh fruit. This program has encouraged excess production and allowed processors to maintain relatively stable levels of pack dictated by market rather than production considerations. In 1993, the withdrawal price was $136 per ton for fruit size 51–61 mm in diameter and $114 per ton for over 61 mm in diameter. In 1993, 960,000 tons of peaches were produced in Greece and withdrawal was authorized for up to 283,000 tons, a level that exceeded the quantity of peaches delivered to processors, 247,000 tons.

Raw product cost per case depends on the number of salable cases obtained per ton of raw product used. In a 1994 document, the Greek Ministry of Agriculture used a yield of 1 kg of fruit plus sugar for each .8156 kg of raw product. This is approximately 51 cases (24/1 kg) per metric ton. The Agricultural Bank of Greece cost estimates are based on the use of 770 grams of raw product per one kilogram, gross weight, of canned peaches. This implies a recovery of 54.1 cases (24/1) per metric ton of raw peaches, or 50.8 standard cases (24/2-1/2) per U.S. ton.

Unit labor costs vary according to plant efficiency. An efficient plant in Greece should produce about 3.6 cases per person-hour, as indicated in the 1988 cost estimates. This yielded a labor cost of $1.10 per case at a wage of $3.95 per hour. We projected this value forward to 1995 using the IMF's consumer price index to account for escalating wages. The overhead cost per case is $2.04 or 12% of costs. Like the overhead per case in 1988, it appears to be a compromise between the low and high overhead estimates provided by Greek processors.

Sugar prices paid by processors are uniform. Differences in per case costs reflect different proportions of product packed in heavy or light syrup or in juice. The sugar cost in Table 1 is based on 1,257 grams of sugar per standard case at an estimated landed cost of $1.68 per kilogram. Exports of peaches to third countries receive a special rebate for sugar which, as of 1994, was the equivalent of $0.77 per case. This is based on an EU subsidy of 35.86 ECU/100 kg of sugar and a content of 1,257 grams per case. The EU processing aid of 86.630 ECU per ton of finished

product was equal to $2.10 in 1995 and was lower than the subsidy in 1988. In addition, a general rebate that covers a small part of the fuel costs is in effect and is paid for the entire canned fruit production irrespective of the destination country. The rebate is set at 0.7 drs/kg of the gross weight of the product (fruit plus syrup plus immediate containers) and was the equivalent of $0.01 in 1995.

Greece doubled its exports between 1990 and 1994 to both neighboring EU countries as well as Canada, Mexico, Japan, and South American markets. Exports to the U.S. almost doubled, although 1990/91 was a particularly low export year, and the 1994/95 level was consistent with recent past levels and well below the peaks of 1988/89 and 1989/90. It was significantly above the levels of a decade earlier. Based on Greece's low export price, Australia, Argentina and Brazil have charged Greece with dumping and Australia imposed countervailing duties on Greek canned peaches.

Due to low prices through 1994 as well as high interest rates, the number of plants is decreasing in Greece. In 1988, there were 76 fruit canning plants in Greece, but only 51 operated. This number dropped to 36 plants in 1993 and 30 in 1995. While relatively strong prices in 1995 appeared to stall further consolidation, canners contend that basic economic problems remain and that higher prices are needed for survival. Raw product capacity has probably increased from the 260-280,000 ton level estimated in 1988. Based on 1994 output, it is likely to be over 300,000 tons.

Table 1. Estimated Processing Costs for Canned Peaches in Greece, 1994 and 1995.

Cost Category	1994		1995	Considerations
	low	high	projected[1]	
	-------$ per case 24/2-1/2-------[2]			
Peaches ($353/t)	6.15	6.81	6.53	raw & finished quality
Sugar	1.96	2.46	2.04	brix
Cans	4.10	4.70	4.83	quality of product
Cartons	0.38	0.55	0.50	quality of product
Labels	0.26	0.38	0.42	quality of product
Energy	0.34	0.47	0.45	product characteristics
Labor	0.85	1.70	1.98	quality: fancy, choice, standard
Industrial expense[3]	1.07	2.13	2.50	quality: fancy, choice, standard
Total	15.11	19.20	19.25	
Less EU aid[4]	2.37	2.37	2.37	
Sugar rebate[5]	0.74	0.93	0.77	
Fuel rebate	0.01	0.01	0.01	
Net cost ex plant[6]	11.99	15.89	16.10	

1 Based on projections from 1991 data, estimates from consultant, and EU grower prices and aids; conversion at 54 cases per ton of raw product.

2 Converted from standard case 24/1 by multiplying variable inputs by 0.9667.

3 Industrial supplies, cooling and storage, transport of fruit, losses, overhead.

4 $2.45 per 24/1 case multiplied by 0.9667 to obtain equivalent aid for 24/2-1/2 case.

5 Approximately 100 ECU per ton of sugar used in product for export outside of EU.

6 The average of high and low values for 1994 is $13.94 per case. The Association 1994 costs were $12.97 and $16.75 per 24/1 case before sugar and fuel rebate.

Sources:

Columns 2 and 3: Association of Hellenic Agricultural Processors, *Private Communication,* November 2, 1995. Estimates excluded sugar and fuel rebate. Estimates are based on 57.4 and 51.8 cases per ton of raw product.

Column 4: Industry consultant, *Private Communication,* October 1995 for overhead and container costs. Peach costs and EU aid from Association of Hellenic Agricultural Processors; remaining data projected from 1991 Agricultural Bank of Greece estimates (USDA/FAS Agricultural *Attaché Report,* AGR#GR2012, Athens, 3/92) using CPI, 1991 to April 1995.

ITALY

Italy is a relatively minor producer of canned peaches. Its pack in 1994 was 50,000 tons (2.4 million cases), one-half of the 1992 pack. Peach processing is not important in Italy's agricultural economy and many Italian companies have either closed down, chosen to produce other processed products such as juice, or moved operations to other countries. One major company, Agritalia, went bankrupt in 1993. Canners must compete with the fresh fruit market and this limits peach availability and often escalates peach prices above the minimum established by the European Union. In addition, the industry faces the prospect that the EU will have to reduce import duties on canned fruit from third countries as the result of the recent GATT agreement. If duties are reduced or removed, the industry will face even greater competitive threats.

Ninety percent of Italy's canned peach exports go to neighboring EU countries, hence are not a significant competitive factor in other markets. USDA/FAS reported export prices were about $14.88 per case (24,000 lire) in 1994 as compared to $18.24 (28,800 lire) in 1993. The quality of product was not specified but is apparently below that used in estimating costs (choice quality halves). The EU subsidy and lire devaluation has helped bolster the competitive standing of these exports.

It is estimated that the cost per standard case of canned peaches (24/2 1/2 cans) ranged between $19.50 and $20.11 in 1994, before accounting for subsidies (Table 2). Costs dropped to $17.65 and $18.26 after accounting for the EU processor subsidy. The sugar rebate would decrease costs by an added $1 per case for product shipped outside of the EU. It is believed that the dollar value of the EU subsidy to Italian processors was lower than to Greek processors because of differences in the politically determined "internal" rate of conversion between the ECU and national currencies. The two cost estimates differ only with respect to raw product conversion rates. The low cost estimate uses a recovery rate of 55.8 equivalent 24/2-1/2 cases per ton of peaches processed and the high cost estimate uses a rate of 50.7 cases (the standard used to calculate the EU subsidy). The minimum grower price in 1995 was $369 per ton and, if no other costs change, implies a net cost increase of about $1.20 per case for 1995.

Costs were calculated similarly to the Greek costs except that no personal interviews were conducted. Recent data were obtained concerning grower prices for peaches and the value of the EU subsidy. The remaining costs were projected forward from the data reported by Moulton (1992) using the International Monetary Fund estimate for the Italian consumer price index (CPI) and then converted to dollars at the 1994 third quarter exchange rate of $1 = 1,571.5 lire. Costs in 1994 were slightly more than 10% over 1988 in dollar terms. The CPI for the Italian economy increased by 32% and the index of contract wages grew by 36% between 1989 and 1995. However, the lire depreciated substantially against the dollar, offsetting part of these increases.

The Moulton data covered the years 1988/89 and were collected through interviews with processors. Some other data were considered as well. USDA/FAS estimated that the processing cost in 1990 was approximately $19.80 per case, 16.8% higher than Moulton's estimate for the prior year. We believe that the estimate reflected a lower finished case recovery rate. Even higher costs in 1991 resulted from a low yield and low quality crop in that year that pushed raw product costs to $511 per ton.

The minimum grower price for peaches in 1994 was 49,749 lire/100 kg ($304 per ton) and the EU processing subsidy was the equivalent of 14,719 lire/100 kg ($94 per ton) when converted to lire using the ECU "internal" rate. At a recovery rate of 55.8 cases (24/2-1/2) per ton of peaches, the raw product cost per case is $5.45. At a recovery of 50.7 cases per ton of peaches, the raw product cost is $5.99 per case. The value of the EU subsidy is $1.85 in either example since it is converted first at the EU standard of recovery of 49 cases per ton and then adjusted for equivalent 24/2-1/2 cases (50.7). These recovery rates depend on the quality of peaches and the variety used which varies from year to year and between regions. In southern Italy where the older varieties are cultivated, the quality remains below that in Greece. However, in northern Italy where newer orchards with better varieties are planted, the quality is better.

The cost of direct labor in 1988 was $2.03 per standard case. The projected value to 1994 is $2.30 when projected at the same rate as contract wages increased and assuming no change in labor efficiency. Sugar costs were $2.49 per case in 1989 and projected to be $2.66 in 1994. The costs of cans in 1989 were higher than in

Greece, an anomaly noted at the time because cans were manufactured in Italy and exported to Greece. The situation continues to be true, since the 1994 values were projected to be $5.36 per standard case in Italy and $4.83 in Greece. Overhead costs were calculated at 12% of variable costs, the rate that applied in 1989.

Table 2. Estimated Processing Costs for Canned Peaches In Italy, 1994.

Cost Category	1994[1]	
	low	high
	---$ per case 24/2-1/2---	
Peaches ($304/t)[2]	5.45	5.99
Sugar	2.66	2.66
Cans and cartons	5.36	5.36
Labor	2.30	2.30
Other inputs	1.41	1.41
Overhead (12%)	2.32	2.39
Total	19.50	20.11
Less EU aid[3]	1.85	1.85
Sugar rebate[4]	1.00	1.00
Net cost ex plant	16.65	17.26

[1] The low value is based on a raw product conversion rate of 54 cases 24/1 per ton (55.8 cases 24/2-1/2) as supplied by Italian processors in 1988; the high value is based on a conversion of 49 cases 24/1 (50.7 cases 24/2-1/2) as used by USDA/FAS in 1993. These values do not reflect differences in average brix or of average product quality mix.

[2] The minimum grower price for peaches in 1995 was $369 and resulted in a per case cost of $6.61 and $7.28. Other factors being equal, this implies net costs of $17.86 and $18.60 per case 24/2-1/2 in 1995.

[3] Converted from standard case 24/1 by multiplying aid by 0.9667.

[4] Sugar rebates are 100 ECU per ton of sugar used for product exported outside of EU. They are estimated on a per case basis equal to those of Greece, adjusted for the difference in sugar costs. However, since Italy exports very little product to non-EU destinations, sources in Italy did not list this rebate. The fuel rebate applied in Greece ($0.01 per case) is not applicable in Italy.

Sources:
Peach prices and EU aids from USDA/FAS, *Private Communication,* November, 1995.
Other costs projected from 1988 estimates (Moulton, K., "Global Competition in Canned Peaches, Pears and Related Products, Vol. 2." Department of Agricultural and Resource Economics, University of California, Berkeley, 1992) using CPI and labor wage index, 1989 to April, 1995.

SPAIN

Fruit production in Spain is mainly for fresh market use with processors using only 10-12 percent of peach production. This makes it difficult to establish consistent quality sources (unlike the situation in California), and impairs Spain's competitive position. The substantial devaluation in the Spanish peseta against many currencies (except the dollar) helped to expand exports. Spain's full integration into the EU resulting in duty-free exports to EU members increased its intra-EU exports.

Canned peach production in 1994/95 was estimated to be 112,500 metric tons (5.5 million cases, 24/2-1/2). This level was above that in 1993 but still much below 1992 production. Many of Spain's canners continue to be financially strapped from high interest rates and low returns. Many smaller, family-owned canning operations have consolidated in order to gain economies of scale, or have been forced to go out of business altogether. The recent consolidations have helped somewhat as leading firms invest in plant modernization and expansion and are starting to diversify product lines. USDA estimates that in 1994 there were 60 canneries that process peaches.

The estimated cost for producing canned peaches in Spain in 1994 ranged between $23.13 and $23.92 per standard case, 24/2 1/2, before the EU subsidy and depending on the raw product conversion rate (Table 3). The after-subsidy cost is $20.89 or $21.68 per case, up 26% from the level in 1988. The increase is attributed to a small increase in peach prices (4.4%), and a substantial decrease in EU subsidy (–28%). Costs for product exported outside of the EU were $1 lower because of the sugar rebate. Other 1994/95 costs were projected to increase at the same rate as the exchange rate corrected value of CPI between 1988 and January 1995 (26.6%) and then converted from 24/1 kg cans to 24/2 1/2 cans.

The official price paid for peaches in 1994/95 marketing year was 273.01 ECU/metric ton or 46.46 peseta/kg or $359 per metric ton based on the 3rd quarter 1994 exchange rate. Processing aid was 86.63 ECU or $114 per ton. The net cost of peaches was $245 per metric ton. The grower price in 1989 for processing peaches was 40.80 pesetas/kg, or $313 per U.S. ton. We estimated labor per case at $2.46. The recognized or "official" salary for farm workers is 2,300 pesetas per day plus 43%

benefits. This is the equivalent of $28.60 per day or $3.58 per hour. Domestic sugar costs about three times more than imported sugar, according to USDA/FAS. The cost in 1988 was $2.83 per case, and in 1994/95 was $3.46 per case based on the projections previously described.

Table 3. Estimated Processing Costs for Canned Peaches in Spain, 1994.

Cost Category	1994[1]	
	low	high
	---$ per case 24/2-1/2---	
Peaches ($359/t)	6.43	7.09
Sugar	3.46	3.46
Cans and cartons	5.90	5.90
Labor	2.46	2.46
Other inputs	1.24	1.24
Overhead[2]	3.64	3.77
Total	23.13	23.92
Less EU aid[3]	2.24	2.24
Sugar rebate[4]	1.00	1.00
Net cost ex plant	19.89	20.68

[1] The low value is based on a raw product conversion rate of 54 cases 24/1 per ton (55.8 cases 24/2-1/2) as reported by some processors in 1988; the high value is based on a conversion of 49 cases 24/1 (50.7 cases 24/2-1/2) as used by USDA/FAS in 1993. These values do not reflect differences in average brix or of average product quality mix.

[2] Overhead calculated at 15.7% of total costs.

[3] Converted from standard case 24/1 by multiplying aid by 0.9667.

[4] Sugar rebates are 100 ECU per ton of sugar used for product exported to non-EU destinations. They are estimated on a per case basis equal those of Greece, adjusted for the difference in sugar costs. However, since Spain exports very little product to non-EU destinations, sources in Spain did not list these rebates. The fuel rebate applied in Greece ($0.01 per case) is not applicable in Spain.

Sources:
Peach prices and EU aids from USDA/FAS, *Private Communication,* November, 1995.
Other costs projected from 1988 estimates (Moulton, K.S., "Global Competition in Canned Peaches, Pears and Related Products, Vol. 2." Department of Agricultural and Resource Economics, University of California, Berkeley, 1992) using exchange rate corrected CPI, 1989 to January, 1995.

SOUTH AFRICA

South Africa normally exports over 85 percent of its total canned fruit production due to poor domestic economic conditions and strong export demand. Higher quality product is normally exported while that of lower quality and price is sold in the domestic market. Production of canned peaches in the 1994/95 season was estimated to have reached 80,000 tons (3.9 million cases, 24/2-1/2), the highest level in six years. Fresh fruit intake for processing was estimated at 110,000 metric tons, only part of which was for canned peaches..

In 1993, there were 8,108 hectares in clingstone peaches in South Africa, a slight increase from 7,935 hectares in 1989. There was some replacement planting in the early 1990s with an average of 433 hectares being planted each year from 1991 to 1993. Cling peach yields are 8.9–11.2 tons/acre according to one source but according to a major packer, a good peach producer should get 11.2–13.4 ton/acre (12.3–14.8 U.S. tons).

USDA/FAS reports that the 1994/95 peach crop was very large. The processors introduced a quality bonus scheme which resulted in delivery of a very high quality crop, achieving about 93% grade 1. The basic minimum price was R660 ($176) with increases added at R6/metric ton ($1.60) for each grading percentage point from 91% to 100% which could result in a price of up to R720/metric ton ($192) being paid. The average price paid was R676 or $180.12/mt. There were no subsidies to growers.

The South Africa canned fruit industry is cautiously expanding again after the cutbacks brought about by the trade sanctions during the 1980s. Expansion is well planned and based on tree census information, expected long-term demand, and coordinated advice from the various marketers, including UNIFRUCO, the Dried Fruit Board and the Canning Fruit Board. In 1989, the structure of the fruit canning industry was similar to that found in Australia and California. Three quarters of the peach output was accounted for by 2 firms in 1988 and most of the balance by 3 other firms. Since the spin-off of Del Monte's international operations, the South African operation is no longer controlled from the United States.

South Africa is probably the lowest cost processor among the world's major

fruit processors. Its advantage is gained through a combination of inexpensive labor, a good climate for production, low raw product costs, high efficiency, and a favorable exchange rate with their export markets. South Africa is disadvantaged by the high transportation cost to most of its export markets.

Two estimates indicate 1994 processing costs at $13.33 and $14.19 for a case of 24/825 grams of sliced peaches (Table 4). The lower estimate is based on a grower peach price of $180 per ton, the average reported by USDA/FAS, and a recovery rate of 57 cases per ton. The higher estimate is based on a grower price of $200 per ton and a recovery rate of 59 cases. These costs are significantly above that estimated by a major processor in 1988/89, $10.00 per case.

Raw product prices are low relative to other countries. In 1995, peaches cost R676 or $180.12 per metric ton. However, there was an estimated scrap factor of 30.21%. Two conversion rates were supplied; one at 57.02 cases per metric ton, the other at 58.9 cases. At this recovery rate, the raw product cost ranges from $3.16–$3.39 per case, far below European levels. In 1988, at a recovery of 64 cases, the raw product cost was $2.63 per case. Recovery rates vary from a low 57 cases up to 68. For some varieties like Oomsarel, recovery may be 66–68 cases, and for others like Kakamas, it may be 60–62 cases.

In 1994, labor rates were estimated at R5.22 per hour with benefits at 25%. This equates to an hourly rate of R6.52 or $1.74 an hour. One processor estimates that only 1.58 cases are made per labor hour fixing the labor cost per case at $1.10 which is 8.25% of the total costs. Another suggested it was 10 percent of costs at $1.39. These estimates are slightly higher than 1989 estimates but the cost-per-hour ratio remains very close. In 1989, labor was 6 to 8 percent of variable costs, or $0.51–$0.72 per case.

While South Africa did not have a system of direct price supports or processor subsidies, it did have a system that allowed export earnings to be deducted from total earnings in calculating total income subject to taxation. Processors are losing the General Export Incentive Scheme however, which helped them with up to 17 percent of the value of shipments (it did not comply with the GATT requirements). No definite details are available but payments have been made taxable, payments have been cut, and the whole scheme will be abolished by 1997.

The loss of the scheme, however, will be partially offset by the devaluation of the Rand.

Table 4. Estimated Processing Costs for Canned Peaches in South Africa, 1995.

Cost Category	1995[1]	
	low	high
	---$ per case 24/2-1/2---	
Peaches[2]	3.16	3.39
Sugar	1.35	1.35
Cans and cartons	4.34	4.63.
Labor	1.10	1.39
Other inputs	0.02	0.15
Overhead	3.36	3.28
Net cost ex plant	13.33	14.19

[1] The high and low values were provided by two different sources. The low value was based on a conversion rate of 57 cases per ton of raw product and the higher cost estimate used a conversion of 59 cases. The difference in net raw product price more than offset the higher conversion rate of the second estimate resulting in a higher cost per case. Data were calculated on a case of 24 cans of 825 grams each and were considered to be equivalent to a case 24/2-1/2.

[2] The conversion rates imply grower prices are $180 per ton and $200 per ton for low and high estimates. USDA/FAS reported that the average price paid was $180 per ton, with a range between $176 (the negotiated basic minimum price) and $192 (the price with maximum quality premiums).

Sources:
Industry consultant, *Private Communication*, July, 1995.
South Africa Canning Fruit Board, *Private Communication*, August 1995.

AUSTRALIA

Production of deciduous fruit has been increasing in recent years due to increased numbers of bearing trees. The vast majority of this increase however has been directed toward the higher priced fresh market. The Australian Bureau of Agricultural and Resource Economics estimated that total peach production in 1994–95 would be seven percent higher than in 1993–94 due to an eight percent increase in yield per tree. The peach industry is experiencing an increase in high density planting which may make Australian peaches less expensive in the future and improve processors' competitiveness.

In 1994, a strong Australian dollar and competition from subsidized European canned peaches, particularly from Greece, resulted in poor export prospects for Australian processors. Exports fell sharply over the last seven years with exports decreasing about 19 percent during 1994. Greek and Italian imports increased during 1994, in spite of the countervailing duties and anti-dumping duties imposed in January 1992 on both Greek and Spanish peach products. The countervailing duties on Greek and Spanish peaches are A$4.38 (U.S.$3.15) and A$4.54 (U.S.$3.17) per basic carton. This decision has been extended until the year 2000.

Processing information was obtained from Australia on sliced peaches in a case of 24/825 gram cans. The total cost for a case was estimated at $15.63 (Table 5). The conversion factor used was 62.71 cases of 24/825 gram cans per metric ton of peaches. Almost half of the fruit is canned in juice with an additional forty percent canned in syrup. Peaches in 1994 sold for $A477 or $343.17/metric ton ($311.32/U.S. ton), and in 1995 for A$440/metric ton. Processors estimate over a 20% scrap factor in canning peaches. Thus, for 1,000 grams of output, they needed approximately 1,303 grams of fruit.

Labor was paid an hourly rate of A$13.33 or U.S.$9.59 (U.S.$1.00=A$1.39). Benefits were calculated at 42.5% of wages raising total labor costs to $13.67 per hour. Labor is very productive and produces 10.27 cases per hour at a cost of $1.36 case. Overhead was calculated at 21% of total costs or $3.27. Peaches were the major cost at 35%. The cans and can ends were about 25 percent of the costs at $3.93.

Two companies, SPC and Ardmona, dominate the Australian market with

85% of the volume. With this market share, they have been able to differentiate their product and get a wide price spread. However, the low priced import competition has resulted in new Australian generic lines being introduced to compete with them. On July 1, 1995, imports faced a tariff of seven percent ad valorem which will be reduced to 5 percent on July 1, 1996. One of the two other processors, Letona, went into receivership in 1993 and has since sold its operation. Some of the fruit that was processed by Letona will be sold on the fresh market, while a small amount of fruit may be diverted to other canneries.

The Australian industry continues to be concerned about losing the Canadian market to the U.S. due to the North American Free Trade Agreement. Tariffs on U.S. canned fruit exports to Canada are being phased out through the 1990s. The Australian government continues to press for similar tariff treatment. Australia sells approximately one third of their total canned peach exports to Canada.

Table 5. Estimated Processing Costs for Canned Peaches in Australia, 1994.

Cost Category	$ per case of 24/825 g.	Percent of Total
Peaches ($343/metric ton)[1]	5.47	35
Syrup and sugar[2]	0.62	4
Labor[3]	1.36	9
Tin plate/can	3.93	25
Other inputs	0.06	0
Cartons	0.44	3
Labels	0.40	3
Chemicals	0.08	1
Overhead	3.27	21
Total Cost	15.63	100

[1] Conversion rate is 62.7 cases per ton of raw product. Processors estimate that 1 ton of fresh peaches will yield 767 kg, dry weight, of processed peaches.
[2] About 40% of output is canned in syrup, and the balance primarily in juice.
[3] Estimated labor productivity is 10.3 cases per hour.

Sources:
Processor interviews, 1994.
USDA/FAS, *Attaché Report*, AGR#AS5019, 1995.

ARGENTINA

Typically, one-quarter to one-third of Argentina's peach production goes to processing, and perhaps 60% of that is for canned peaches. The canned peach pack in 1994/95 was 2.2 million standard cases, ranking Argentina second to South Africa among southern hemisphere producers. Over the past 5 years the pack ranged between 1.5 million cases (1990/91 and 1992/93) and 2.5 million cases (1989/90 and 1993/94).

Argentina is a high-cost producer of canned peaches with total costs per case between $20.26–$20.94 (Table 6). Costs are close to the after-subsidy cost in Spain but above those of the other 6 countries analyzed (Table 9). Peaches are the major cost item, accounting for about 30% of total costs. In 1995, grower prices ranged from $250 to $400 per ton, depending on quality. The price in 1994 averaged $250 per ton, and in 1993, $520 per ton, reflecting very low production. The 1995 raw fruit cost per case was estimated to be $6.00–$6.09. The variability in raw product prices has made successful export strategies difficult. A committee representing canners, growers, and government customarily meet in Mendoza to determine a range of prices for agricultural raw products. The price is usually f.o.b. orchard and processors pay freight to the plant.

Cannery yields vary from year to year depending on fruit quality but conversion rates were not specified in the cost information reported. As a bench mark, in 1993, the conversion was estimated at 0.94 metric tons of canned product per metric ton of fresh fruit, compared to the 1992 yield of 0.95 metric tons. The latter rate was used in 1995 to calculate raw product costs per case. It implies, however, a very low recovery rate compared to that achieved in other countries. If, for example, processors achieved a recovery of 52 cases per ton, a conservative rate in several other countries, the raw product cost per case would have been $5.38 rather than $6.00.

Before 1990, tin plate was produced by a state-owned mill which then sold the tin plate to can manufacturers. Now processing plants may import tin plate without duty from suppliers such as Brazil, Chile, or Japan. However, this has not reduced can costs for processors. They increased from $4.32 per case in 1990 to $5.28, or $5.54 in 1995. USDA/FAS reported a drop in the sugar cost per case from $1.44 to $0.96 in

1995, with processors estimating an even larger drop to $0.69. Labor was estimated to be $1.92–$2.16 per case. Other inputs such as energy, fuel and chemicals were $1.44 according to USDA/FAS and $0.25 according to a major processor.

The overhead costs of Argentina's processors were higher than those for any of the eight countries surveyed (Table 9). The underlying data do not explain this level, although high interest rates are probably the principal reason. The share of overhead costs, 23 percent, is below that in California, South Africa, and Chile, and above that in the remaining countries.

The peach industry is divided into fresh and processing components. Initially, these groups were interchangeable but growers are growing more specialized varieties which permits very little substitution between markets. There are approximately 20 cannery establishments with facilities to can peaches, with a total processing capacity of 100,000 metric tons, and with 95 percent of the processing done in Mendoza.

Domestic consumption of canned peaches is expected to be 1.67/kgs per capita or 2.8 million cases (58,500 metric tons). Exports are primarily to Brazil, Paraguay and Mexico. In the second half of the year, Argentina imports mostly from Chile, Spain, Greece, and South Africa.

The Ministry of Economy announced in late December 1994 several economic measures including a reduction in the canned fruit import-export tariff that was "technically" effective January 1, 1995. By Resolution 1239 of October 1992, the Government established a 10 percent rebate for all canned fruits (3.30 percent previously) and a 13 percent import tax for all canned fruit (same as previously). Canned fruit exports have zero tax. There are no direct Argentine subsidies and growers often did not apply for the tinplate and sugar rebates that were available.

Table 6. Estimated Processing Costs for Canned Peaches in Argentina, 1995.

Cost Category	USDA Estimate		Processor Estimate	
	$ per case[1]	Percent	$ per case[1]	Percent
Peaches[2]	6.00	30	6.09	29
Syrup and sugar	0.96	5	0.69	3
Labor	1.92	9	2.16	10
Tin plate/can	5.28	26	5.54	26
Energy/fuel	0.48	2	0.23	1
Cartons/labels	—[3]		1.39	7
Other inputs	0.96	5	0.02	0
Overhead	4.66	23	4.82	23
Total cost	20.26	100	20.94	100

[1] Data converted to standard cases, 24/2-1/2.
[2] Conversion rate for USDA estimate based on 950 grams of finished product produced from 1 kg. of raw product. This implies 46.6 cases per ton and a raw product price of $280, an increase of $30 from the 1994 price. Processor did not provide a conversion rate.
[3] Cost not listed separately.

Sources:
USDA/FAS, *Attaché Report*, AGR #AR 5017, 1995.
Processor interviews, from USDA/FAS, *Private Communication*, August, 1995.

CHILE

The 1995 pack was estimated to be 1.9 million cases (39,000 tons) due to excellent crop conditions in the principal growing regions (Table 10). Recent production levels in Chile have averaged about 1.6 million cases, which is one million cases or 145% higher than in 1982–84. The packs are almost one-tenth those in California. Consolidation continues to occur in Chile's canning industry. In 1995, only seven main processors remained with five of them processing over 90 percent of the production. In 1993, twelve canneries processed peaches in Chile and eight of them accounted for well over 90 percent of production. Two of the canneries process fruit cocktail and mixes in addition to peaches. Capacity grew by 18,000 metric tons of raw product (42%) between 1988 and 1994 through plant expansion and the construction of new facilities. Canneries process peaches immediately following the peach harvest which stretches from late December through the end of April.

Canned peach processors have become increasingly reluctant to provide proprietary information that they believe could be used by competitors to obtain a market advantage. For this reason, production and cost estimates may vary significantly between sources and from year to year. Cost data reported here have been based on anecdotal evidence provided by processors, industry associations, economists, and government analysts. In addition, estimates of costs in Chile have been obtained from an economic feasibility study that relied on an engineering study of a specific plant. Other information was obtained from processors, usually in partial form, with the missing parts supplied by other processors, or from known technical coefficients in other countries. Processors continually seek to lower costs through increased mechanization, reduced use of labor, forward contracts with farmers, and improved peach varieties. These strategies are essential for survival in global competition and among aggressive competitors in Chile.

The Chilean industry has relatively low costs of production and the potential for improving productivity. The cost of producing a standard case of canned peaches in 1994 was estimated to be $13.98 (Table 7). Raw product costs accounted for 21% of total costs, but the share varies from year to year in response to changes in grower prices and product quality. Grower prices in Chile have fluctuated relative to prices in California; they are higher than California's in some years and lower in

others. In the period 1986/87–1988/89, grower prices in Chile averaged $185 per U.S. ton and those in California averaged $206. In 1991/92–1993/94, the price advantage shifted as California prices averaged $210 per U.S. ton, and those in Chile averaged $224 due to the high price in 1991/92. The 1995 price was expected to average $180 per metric ton ($163 per U.S. ton). Chile's lower labor and land costs are offset, in some years, by its relatively low yields. As orchard productivity improves, grower prices will decline relative to California, unless the gains are offset by some other factor.

Using a conversion rate of 61.7 cases/ton, the raw product cost was $2.90 per case. Although imprecise, the data suggest that raw product recovery rates tend to be low relative to U.S. standards. For example, the volume of raw product delivered to canners in Chile, according to USDA estimates, indicates a recovery rate of 50 standard cases per metric ton, as compared to an accepted average of 58.4 cases in California, or 62 cases per metric ton for efficient processors in Chile or other producing countries. If the "industry" estimate of raw product input is used, an even lower recovery rate is implied. A feasibility study prepared in Chile used a conversion rate of 39.6 cases of 6/10 per U.S. ton of raw product input, as compared with an expected California rate of about 48.7 cases. If the achieved average rate in Chile is 50 standard cases per metric ton, and if it were to increase to the California rate of 58.4 cases, costs would decline by $0.50 per case. Our cost estimates, however, are based on recovery rates close to that in California because the processor reporting costs achieved such a recovery rate.

Labor costs per case in Chile were lower than in any of the surveyed countries (Table 9). The cost with benefits was $0.98 per case or 7% of costs. Wages in 1994 averaged about $1.00 per hour plus 30% to 50% in benefits and have been increasing at about 10% per year, after accounting for inflation. This wage/cost relationship implies production of about 1.5 standard cases per hour as compared to 4 and 7 cases per person-hour in California, with a likely average of about 5.5 cases. If Chile achieves the estimated California productivity, the costs would drop by about $0.70 per case, at 1994 wage rates. Thus, there is the potential for Chilean processors to improve their cost advantage by up to $1.20 per case as raw product and labor productivity are increased.

Table 7. Estimated Processing Costs for Canned Peaches In Chile, 1994.		
Cost Category	$ per case 24/2-1/2	Percent of Total
Peaches[1]	2.90	21
Syrup and sugar	1.08	8
Labor[2]	0.98	7
Packaging	3.74	27
Other inputs	0.29	2
Freight to f.o.b. point	0.83	6
Overhead[3]	4.16	30
Total Cost	13.98	100

[1] Peach cost includes freight to plant; conversion is at 61.7 cases per ton; this implies a grower price of $179 per ton.
[2] Includes $0.65 for wages and $0.33 for benefits.
[3] Includes $2.37 for interest and depreciation (17%), $0.79 for variable cost overhead (6%) and $1.00 for miscellaneous fixed overhead (7%).

Source:
Moulton, Kirby. "Competition and Trade in Canned Peaches: The Situation Relative to Chile," Department of Agricultural and Resource Economics, University of California, Berkeley, Working Paper No. 737, January, 1995.

In Chile, exporters may apply for a rebate of the import duty paid on the portion of the input used in an exported product. In the case of canned peaches and other fruit, the two critical inputs subject to rebate are sugar and tin. There is an across-the-board import duty of 11 percent on practically all imports. One important exception is sugar, which is subject to a price band that normally involves a surtax on top of the 11 percent duty and depends upon international prices. In addition, canned fruit mixture were eligible for a 10 percent export rebate in 1993, which is provided to small "non-traditional" exports. We have no evidence that an import duty rebate has been included in the cost figures provided. We know, however, that in some countries, the costs and delays involved in applying for rebates discourage

processors from applying for them. If rebates were applied to the container and sugar figures cited below, they would lower costs by about $0.53 per case (0.11 x (3.74+1.08)). This would suggest an f.o.b. Valparaiso cost of $13.45 rather than $13.98.

About two-thirds of industry output is destined for export markets. Exports were 513,000 cases (81%) higher in 1993/94 than in 1989/90 and domestic production increased by 418,000 cases. As a consequence, shipments to the domestic market declined. The export share of domestic production increased from 50% to 69% and the domestic market share dropped correspondingly. Shipments to the domestic market dropped by 93,000 cases (15%) during the same period. The highest quality canned products are sold to Canada, the United States, and Western European countries where Chilean exporters normally receive higher prices. Lower quality products, for example, standard quality, diced peaches, or other specifications not meeting higher export standards, are generally shipped to Latin America or retained on the domestic market. With the continued revaluation of the peso and stiff competition from Argentina and Greece, Chile has increased efforts to market to Japan and to Latin American countries such as Mexico.

Cling peaches in Chile are used in both the fresh and processed market, hence the planted area is more than sufficient to satisfy processing requirements. The total surface in 1994 was estimated to be 12,466 acres, of which 2,078 acres were non-bearing. This area is 29% higher than the level in 1982. Orchards are located principally in three regions: 5,200 acres in San Felipe-Los Andes area north of Santiago; 4,400 acres in the Santiago Metropolitan Region, and the balance (about 2,900 acres) mostly in the Rancague area south of Santiago. Total production in 1993/94 was estimated by industry sources to be 78,000 metric tons, of which 61,000 metric tons was for canning in Chile and in Argentina.

There is sufficient production of canning quality peaches to support a rapid increase in canned peach output if processing capacity is available. There is also ample orchard land available for expansion, if needed. Average yields are significantly below attainable levels, suggesting the potential for significant increases in production as new varieties or improved production practices are adopted.

CALIFORNIA

The U.S. canned peach industry has been undergoing a dramatic restructuring for over 20 years. This has occurred as a result of massive changes in world production and trade and a continued weakening of U.S. market demand for canned peaches. As product prices have steadily eroded, the number of U.S. processors has dropped. These changes have occurred during a period of relatively stable tariff protection in the United States and increasing processor and grower subsidies in the European Union. Without tariff protection, U.S. production would have dropped even further as import shares increased.

Between 1970/73 and 1990/93, the pack of canned peaches declined by 7.7 million cases in the United States, and increased by 12.1 million cases in Greece, and by 1 million cases in Chile. Exports followed a similar pattern; a drop of 2 million cases from the United States, and an increase of 1.9 million from Greece, and 0.9 million from Chile. In a period in which world production and consumption were increasing, and in which trade was of growing importance, the U.S. industry was compelled to retrench. During the 5-year period, 1990–1994, exports averaged 947,000 cases and imports 899,000 cases.

In spite of these changes, the industry retains a strong competitive position because of high yields, quality production in the orchards, and efficiency in its processing plants. California processing costs are estimated to be about $15.53 per standard case in 1994, and $16.39 in 1995 (Table 8). These costs are almost equal to those in Australia, and together they represent the median, with 3 countries having higher costs, and three having lower costs (Table 9). Estimates of processing costs are necessarily anecdotal because the underlying data are confidential for most firms. While one processor supported the above 1994 costs as continuing through 1995, another suggested that container costs have increased and recovery rates have decreased slightly due to lower tonnage this year. It was thought that a worker produces less than 5-6 cases an hour on average.

Raw product costs accounted for the greatest part of total costs. In 1994, they were estimated to be $4.09 per case, reflecting a grower price of $185 per U.S. ton and a conversion rate of 55 cases per U.S. ton. In 1995, reduced production led to a higher peach price of $213 per U.S. ton and diminished quality lowered the

conversion rate to 51.1 cases per U.S. ton. The result was a raw product cost of $4.55 per case, including transportation. Raw product costs in 1994 were lower than all other countries other than Chile and South Africa.

Labor productivity ranges between 4 to 7 cases per person-hour with a likely average of about 5.5 cases. Labor costs were calculated to be $2.58 per case using a recovery of 5–6 cases per labor-hour which was consistent with the range given for larger plants for earlier studies (1989 and 1992). A modest increase was projected for 1995. These levels are higher than in any other surveyed country, suggesting that California's greater productivity has not offset high labor rates. Interest, depreciation and overhead were estimated to be $3.81 in 1994 and almost the same in 1995. They represented 24% of costs in 1994. Tin plate and containers accounted for 24% of costs in both 1994 and 1995. These cost estimates are about equal to those in Chile and are lower than in any other producing country (Table 9).

Table 8. Estimated Processing Costs for Canned Peaches in California, 1994 and 1995.

Cost Category	1994		1995[1]	
	$ per case[2]	% of Total	$ per case[2]	% of Total
Peaches[3]	4.09	26	4.55	28
Syrup and sugar	1.27	8	1.27	8
Other raw materials	0.01	0	0.01	0
Labor	2.58	17	2.80	17
Tin plate and containers	3.77	24	3.92	24
Interest and depreciation	2.20	14	2.20	13
Overhead	1.61	10	1.64	10
Total cost	15.53	100	16.39	100

[1] Estimated values projected from 1994 data except for peach cost and conversion rate which are based on 1995 data.

[2] Standard case 24/2-1/2.

[3] For 1994, peach price was $185 per U.S. ton, transportation to plant was $0.39 per case, and conversion rate was 55 cases per U.S. ton of raw product; for 1995, peach price was $213 per U.S. ton, transportation was estimated to be $0.38 per case, and conversion rate was 51.1 cases per U.S. ton of raw product.

Sources:

1994 data: Moulton, Kirby. "Competition and Trade in Canned Peaches: The Situation Relative to Chile," Department of Agricultural and Resource Economics, University of California, Berkeley, Working Paper No. 737, January, 1995.

1995 projection: Peach price and conversion rates: California Canning Peach Association, *Private Communication,* November 1995. Other data: projected from 1994 data.

Processing costs represent only one part of the total cost of canned peaches to the buyer. The annual report of a major fruit and vegetable processor in California provides an insight to these costs. First of all, the cost of raw product for all processed goods was 26.9% of total processing costs, confirming the raw product cost relationship indicated in Table 8. Costs for warehousing, marketing and delivery added 30% to processing costs. Administrative overhead, not directly attributable to processing operations, appears to have added a further 3.3%. If the same cost relationships apply to canned peaches, the following results can be derived from the

1994 cost estimate in Table 8:

F.O.B. cost per case	$15.53
Marketing and office overhead	3.18
Cost before storage and delivery	18.71
Storage and delivery	2.32
Total delivered cost	$21.03

Prices have had to remain above such cost levels for processors to be profitable. Past research, reported by Moulton, shows that the margin between prices and costs narrowed over the past two decades and that inflation-corrected prices dropped. This decline between 1970–74 and 1990–94 did not stimulate an increase in per capita consumption, as might be expected. In fact, U.S. per capita consumption dropped from 4.27 pounds per person to 2.94 pounds over the period. At the same time, it is apparent that world consumption levels increased, since production outside the United States grew by 92 percent. The U.S. market behaved differently than other markets and did not respond to price incentives. Given this experience, an increase in supply stimulated by a tariff reduction, for example, is likely to cause lower prices without an offsetting increase in product demand. The net result is a change in market shares without a corresponding increase in the size of the market.

Table 9. Estimated Processing Costs for Canned Peaches, All Countries.

Cost Category	Greece[1]	Italy[2]	Spain[3]	South Africa	Australia	Argentina[4]	Chile	California[5]
	1994	1994	1994	1995	1994	1995	1994	1994
	$ per standard case 24/2-1/2							
Peaches	6.48	5.45	6.76	3.16	5.47	6.00	2.90	4.09
Containers	5.19	5.36	5.90	4.34	4.77	5.28	3.74	3.77
Labor	1.28	2.30	2.46	1.10	1.36	1.92	0.98	2.58
Other inputs	2.61	4.07	4.70	1.37	0.76	2.40	2.20	1.28
Overheads	1.60	2.32	3.71	3.36	3.27	4.66	4.16	3.81
Total Cost	17.16	19.50	23.53	13.33	15.63	20.26	13.98	15.53
Less subsidy	3.22	2.85	3.24					
Net cost	13.94	16.65	20.29	13.33	15.63	20.26	13.98	15.53

[1] Values are average of high and low estimates from Table 1. The projected 1995 cost is $14.12.
[2] Values are from processor estimate in Table 2.
[3] Values are average of high and low estimates from Table 3.
[4] Values are from USDA estimate in Table 6.
[5] Cost for 1995 is estimated to be $16.39 per case.

Source:
Tables 1–8, supra.

Table 10. Canned Peach Supply and Distribution, 1990/95.[1]

Country/ Year[2]	Initial Stocks	Pack	Imports	Total Supply	Exports	Domestic Use	Ending Stocks
France							
1990/91	186	1,680	1,543	3,410	132	3,018	260
1991/92	260	1,538	1,362	3,160	186	2,827	147
1992/93	147	1,577	1,200	2,925	196	2,513	216
1993/94	216	1,348	1,157	2,720	250	2,323	147
1994/95	147	1,151	1,274	2,572	294	2,205	73
Greece							
1990/91	1,739	12,339	30	14,108	12,138	819	1,151
1991/92	1,151	15,556	25	16,733	15,179	917	637
1992/93	637	18,258	13	18,909	15,328	838	2,743
1993/94	2,743	14,138	122	17,004	15,187	495	1,323
1994/95	1,323	18,298	24	19,645	17,636	343	1,666
Italy							
1990/91	2,283	3,527	554	6,364	2,018	2,498	1,847
1991/92	1,847	3,968	558	6,374	2,156	2,498	1,720
1992/93	1,720	4,801	441	6,961	1,960	2,352	2,650
1993/94	2,650	2,694	421	5,766	2,058	2,205	1,504
1994/95	1,504	2,450	441	4,394	2,058	2,058	279
Spain							
1990/91	892	3,184	437	4,513	407	3,772	334
1991/92	334	4,478	329	5,140	478	3,878	784
1992/93	784	6,442	88	7,314	1,024	4,576	1,715
1993/94	1,715	5,178	59	6,952	1,788	4,630	534
1994/95	534	5,511	108	6,153	1,617	4,536	0
Total EU							
1990/91	5,100	20,731	2,563	29,276	14,695	10,107	3,592
1991/92	3,592	25,541	2,274	31,407	17,999	10,121	3,287
1992/93	3,287	31,079	1,743	36,109	18,507	10,278	7,324
1993/94	7,324	23,359	1,759	32,443	19,283	9,652	3,508
1994/95	3,508	27,410	1,847	32,765	21,605	9,142	2,018
Argentina							
1990/91	56	1,519	196	1,771	93	1,671	7
1991/92	7	2,401	422	2,830	380	2,370	80
1992/93	80	1,519	1,545	3,144	45	2,854	245
1993/94	245	2,547	441	3,233	294	2,841	98
1994/95	98	2,205	735	3,037	98	2,866	73
Australia							
1990/91	465	1,470	176	2,110	969	926	216
1991/92	216	1,548	125	1,889	667	926	295
1992/93	295	1,695	16	2,006	622	906	478
1993/94	478	1,612	184	2,274	507	931	836
1994/95	836	1,568	147	2,551	637	980	934

Table 10. Canned Peach Supply and Distribution (cont.)

Country/ Year	Initial Stocks	Pack	Imports	Total Supply	Exports	Domestic Use	Ending Stocks
California							
1990/91	2,700	17,880	736	21,316	914	18,102	2,300
1991/92	2,300	16,908	944	20,152	982	17,670	1,500
1992/93	1,500	19,922	1,074	22,496	971	18,325	3,200
1993/94	3,200	18,078	1,039	22,317	946	18,171	3,200
1994/95	3,200	19,600	700	23,500	920	18,280	4,300
Chile							
1990/91	47	1,176	0	1,222	833	372	17
1991/92	17	1,519	0	1,536	990	490	56
1992/93	56	1,675	0	1,732	1,202	514	15
1993/94	15	1,862	0	1,877	1,344	514	18
1994/95	18	1,911	0	1,929	1,382	529	18
Japan							
1990/91	294	1,025	2,067	3,386	0	3,239	147
1991/92	147	1,088	2,624	3,859	0	3,369	490
1992/93	490	938	2,226	3,653	0	3,163	490
1993/94	490	889	3,211	4,590	0	4,394	196
1994/95	196	710	3,674	4,581	0	4,335	245
South Africa							
1990/91	1,456	3,224	0	4,680	2,777	571	1,333
1991/92	1,333	3,212	0	4,545	2,491	581	1,473
1992/93	1,643	3,656	0	5,299	2,750	582	1,967
1993/94	1,969	3,204	0	5,171	2,939	590	1,641
1994/95	1,641	3,919	0	5,560	3,184	588	1,788
TOTAL							
1990/91	10,118	47,025	5,737	62,880	20,281	34,988	7,612
1991/92	7,612	52,215	6,390	66,217	23,509	35,526	7,352
1992/93	7,352	60,484	6,603	74,439	24,098	36,623	13,718
1993/94	13,718	51,551	6,635	71,904	25,314	37,093	9,497
1994/95	9,497	57,322	7,103	73,922	27,826	36,719	9,377

[1] Units: 1,000 standard cases of 24/2-1/2. Assume one metric ton = 48.99 standard 45-lb. net case of 24/2-1/2 cans.

[2] MY 1994-95 includes 1994 packs in Northern Hemisphere and late 1994 and early 1994 packs in Southern Hemisphere.

Sources:

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