



Foreign Agricultural Service

GAIN Report

Global Agriculture Information Network

Required Report - public distribution

Date: 5/30/2001

GAIN Report #IS1006

Israel

Tomatoes and Products

Annual

2001

Approved by:

Thomas Pomeroy

U.S. Embassy

Prepared by:

Tully Friedgut

Report Highlights:

Israel's production of tomatoes for fresh consumption has grown to 160,000 mt.

The continuing water crises and the world market situation have caused production for processing to fall from 307,000 mt in 1999 to 174,000 mt in 2001. Israel's exports of fresh cherry and cluster tomatoes - 19,000 mt in MY 1999 and 12,000 mt in MY 2000 - are meeting growing competition from low cost producers in Senegal, Morocco and Portugal. Exports of processed products have been declining steadily since 1995, reaching a low of \$6 million in 2000.

Table of Contents

Executive Summary	1
Fresh Tomatoes	
PS&D Table - Fresh Tomatoes	2
Production	3 - 8
Consumption	8 - 9
Marketing	10
Trade	10 - 12
Trade Matrix - Fresh Tomato Exports	11
Processing Tomatoes	13 - 16
PS&D Table - Tomato Paste	13
Trade	17 - 18
Trade Matrix: Exports of Tomato Products	19
Trade Matrix: Imports of Tomato Products	20
PS&D Table - Tomato Sauce	21
PS&D Table - Canned Tomatoes	21

List of Tables

Table 1. End Use of Fresh Tomatoes	3
Table 2. Table Tomatoes, Planted Area by Cultivation Method.....	4
Table 3. Area Planted in MY 2000 by Tomato Type and Region.....	4
Table 4. Table Tomatoes: Production Sales and Surpluses.....	5
Table 5. Fresh Table Tomatoes - Farm Gate Prices.....	7
Table 6. Guaranteed Farm gate Prices for Fresh Greenhouse-grown Tomatoes.....	8
Table 7. Trends in Per Capita Consumption of Fresh Tomatoes.....	9
Table 8. Fresh Table Tomatoes - Consumer Prices.....	9
Table 9. Markup between Wholesale and Consumer Prices of Fresh Tomatoes.....	10
Table 10. Organic Tomato Exports - Quantities and Prices.....	11
Table 11. Tariffs on Fresh Tomato Imports in 2001.....	12
Table 12. Varieties: Actual Share of Area in 1998-2000 and Recommended for 2001.....	15
Table 13. Average Price of Industrial Tomatoes.....	16
Table 14-15. Tomato Products: Total Exports to the U.S. and Canada (metric tons and \$1,000).....	17
Table 16-17. Tomato Products: Exports to the U.S. and Canada (metric tons and \$1,000).....	18
Table 18: Duties on Importeed Tomato Products CY 2001	20

Tomatoes and Products - A Review of MY 1999

Executive Summary

Tomato production in MY 1999 (July 1999-June 2000) is estimated at 471,284 metric tons (mt), compared to 422,520 mt in the previous year: 158,000 mt for fresh local consumption, 19,000 mt for fresh export, and 307,000 mt for processing. Preliminary figures for MY2000 indicate a decline of 15 percent in total production, including a 17.5 percent drop in processing tomatoes and a 9 percent increase in production of table tomatoes. More than 80 percent of fresh table tomatoes are grown in greenhouses or covered tunnels. In MY1999 307 tmt were delivered to processors. The 1999 contract price yielded growers 4.5 percent less than in the previous year. Actual average farm gate income for processing tomatoes in 1999 was \$65.30/mt.

MY 2000

Total production in MY 2000 is estimated at 402,000 tons: 160,000 tons for fresh local consumption, 12,000 tons for export and 223,000 were delivered to the processors. The basic contract price was reduced by \$2/ton. Exports of processed tomato products fell by 55 percent compared to the previous year and were more than 60 percent lower than in MY 1998. Seventy percent of fresh exports were cherry tomatoes.

Outlook for MY 2001 and Beyond

Towards the crop year 2001, contracts for 174,000 tons were signed. If the industry fails to enter new markets or to produce new products, the planted area can be expected to continue to shrink. However, the harvest in 2001 is expected to be similar to the 176 tmt processed in 1997.

Israel is experiencing a severe water crisis and irrigation quotas have been cut by an average of 50 percent throughout most of the country. In regions where profitable tree crops are grown, the area planted to field crops has been cut back significantly in order to provide sufficient water to maintain the health of the trees.

Fresh Tomatoes

PSD Table						
Country:	Israel					
Commodity:	Fresh Tomatoes					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		07/1999		07/2000		07/2001
Plnt For Fresh Consump	820	1000	860	1210	0	1350
Plnt For Processing	3240	3100	2840	2200	0	1740
TOTAL Area Planted	4060	4100	3700	3410	0	3090
Harv. For Fresh Cons.	800	820	850	1150	0	1250
Harv. For Processing	3070	3050	2800	2150	0	1700
TOTAL Area Harvested	3870	3870	3650	3300	0	2950
Fresh Sale Production	145000	164344	155000	179120	0	177000
Processing Production	306940	306940	260000	222795	0	174000
TOTAL Production	451940	471284	415000	401915	0	351000
TOTAL SUPPLY	451940	471284	415000	401915	0	351000

Production

**Table 1. End Use of Fresh Tomatoes
(1,000 mt)**

Marketing Year	1997	1998	1999	2000	2001*
Total Supply	350	425	485	417	366
Fresh Consumption	146	133	140	160	160
Surplus Removal**	20	15	18	21	19
Processing	176	267	307	223	174
Direct Export	7	9	19	12	12
Intermediate Products	1	1	1	1	1

Source: Based on CBS figures, Agricultural Statistics Quarterly, No. 4, 1997, 1998, 1999, 2000.

* Forecast. **Including tomatoes rejected by fresh market.

Planted Area

Total area planted to table tomatoes in 2000 was 21 percent higher than in 1999, totaling 1,260 ha and representing an expansion of area under all main types of growing methods: open fields, greenhouses and planting under netting. Part of the expansion is a response to increasing demand for table tomatoes and part - mainly in open fields - due to a drop in deliveries of tomatoes from the Palestinian Authority (PA) which were much lower than expected. In 2001, total planted area is expected to increase by another 7 percent, mainly due to expectations of reduced quantities from the PA because of continuous political tension in the region and growing water problems in the Gaza Strip. The growing area planted to open field tomatoes is a reversal of recent trends. Extension officials are divided in explaining the phenomenon: some claim that this process is temporary, representing a quick response to temporary shortages, but some say that part of the process is the result of lack of alternative profitable crops to replace uprooted citrus and other fruit crops. Areas under netting continue to grow since this method enables producers to use greenhouse techniques with a lower investment cost. It was found to be a low cost solution to the white fly problem (*Bemisia tabaci*, transmitter of the yellow leaf curl virus) which is the tomato industry's main disease. In the long term, expanded greenhouse area can be expected to displace the open fields, providing for higher yields, convenient working conditions, lower insecticide application to control the white fly and a more even use of manpower for harvest throughout the year. According to the industry, greenhouse area can be expected to grow in the future by another 25 to 30 ha, while open field plantings will probably fall back to their 1999 level.

**Table 2. Table Tomatoes: Planted Area by Cultivation Method
hectares**

Marketing Year	1997	1998	1999	2000	2001
Open Fields	500	400	400	550	550
Greenhouses	500	500	500	560	600
Net Covers	100	100	100	150	200
Total	1,100	1,000	1,000	1,260	1,350

Source: Vegetable Growers Association (VGA)

**Table 3. Area Planted in MY 2000 by Tomato Type and Region
hectares**

	Cherry Tomatoes	Regular Tomatoes		
	Greenhouse	Greenhouse	Net Covers	Open Field
Galilee and Golan	0	50	0	175
Center	20	150	0	275
Bsor and Arava	130	210	150	100
Total	150	410	150	550

Source: Vegetable Production and Marketing Board of Israel (VPMBI).

Annual Yield

Annual table tomato production totals 150 - 160 tmt. Almost 80 percent is produced year round in greenhouses and under nets. Only some 20 percent is grown in open fields, usually in spring and summer. CY 2000 saw an increase of nine percent over the long term average as result of the entrance of new growers in open fields looking for a short term opportunity to utilize their water quota and the land which in many cases became available with the uprooting of citrus groves.

Yields of open field tomatoes for domestic consumption rose in 2000 due to improved management. Greenhouse yields were below the long term average due to high summer temperatures and a labor shortage which prevented growers from providing the necessary treatment. The cherry tomato yields were 25 percent lower than in 1999.

**Table 4. Table Tomatoes: Production, Sales and Surpluses
metric tons**

Year (CY)	Supply	Sales*	Surplus
1992	132,440	128,331	4,109
1993	145,101	136,287	8,814
1994	142,101	132,537	9,565
1995	134,191	104,754	29,437
1996	152,692	126,004	26,688
1997	152,751	138,389	14,362
1998	151,175	137,296	13,879
1999	149,166	135,496	13,670
2000	162,860	140,938	21,922

Source: Vegetable Production and marketing Board of Israel (VPMBI), Marketing and Industry Division. *Does not include exports.

CY 2000 production grew by nine percent over the previous year but consumption (sales) only by four percent.

Production Problems in Crop Year 2000

A very hot summer caused tomato shortages during September and October 2000. Crop year 2000 was the second year of increased Phytophthora contamination, mainly in greenhouses, which required increased outlays on pesticides. The political unrest which began in late September 2000 caused a manpower shortage, mainly in the "Bsor" area in the south which had been totally dependent on Palestinian labor from the Gaza Strip. It immediately affected the autumn crop in greenhouses and nettings, part of which was not picked at all and a significant part of which was picked in one run. Ordinarily, picking is selective, done over a period of 3 to 4 months. The one run picking caused serious quality problems. Additionally, the new plantings in some of the areas were simply abandoned. According to the industry, the damage caused by the political unrest to vegetable growers from October 1 - April 30 totals an estimated NS 200 million, of which the tomatoes' share is NS 40 million. The continuing conflict and closure of the Gaza Strip and other PA areas force the growers to look for alternative labor. Part of this is accomplished by the transfer of foreign workers from other crops. The Vegetable Growers' Organization (VGO) has appealed to the government to increase the importation of non Palestinian foreign laborers.

Water Problems

Israel's critical water shortage has not yet affected the table tomato industry. Due to it's relatively high profitability, farmers prefer to channel their reduced water quota to fresh tomato

production. Water problems in Gaza where seawater incursions are evident in several sections of the coastal aquifer, can be expected to affect the tomato supply from PA to the Israel market: in the short run it will reduce Palestinian tomato sales to Israel and later may lead to total abandonment of tomato production by Palestinians. The population in the Gaza Strip is growing rapidly and needs increasing quantities of drinking water. This is supplied at the expense of agriculture: mainly citrus, strawberries and vegetables. An estimated 30 to 40 percent of the wells in the Gaza Strip have been infiltrated by sea water and hence their water is unfit for human and most agricultural consumption.

Cherry Tomato - Production

Cherry tomato plantings and deliveries to market in 1999 totaled 20 tmt of which 8 tmt were exported. Yields in MY 2000 were down 20 percent to between 16 and 17 tmt mainly due to improper treatment and picking problems as a result of the labor shortage. In MY 2000, more than 66 percent of the total were exported. VPMBI marketing specialists forecast that cherry tomatoes have reached their peak and planted area can be expected to remain stable.

Prices

Farm gate prices and present consumer prices show relative stability due to the stable supply all year round. Early spring 2001 saw expanded surpluses, which reduced farm gate prices by 32 percent relative to the same season in 2000.

Table 5. Fresh Table Tomatoes - Farm Gate Prices**Country: Israel****Commodity: Fresh Table Tomatoes****Units: Price in NS/mt**

Month	1998	1999	2000*	2001*
January	1738	1941	2055	1243
February	1620	1566	1658	1172
March	1455	1356	1545	1155
April	1487	1190	1374	
May	1612	1085	1237	
June	1541	1163	1267	
July	1070	1033	1475	
August	1564	1375	1652	
September	1881	1472	1730	
October	3498	2128	1962	
November	2369	2445	1797	
December	1806	1913	1470	

Source: CBS, Price Statistics Monthly.

Contract terms: Average farm gate price for fresh table tomatoes (excluding cherry tomatoes).

Currency: New Sheqel (NS). Rates are average for designated month.

Exchange rate: \$1.00 = 3.58 (01/98), 4.10 (01/99), 4.20 (01/2000), 4.12 (01/2001)

* Since CBS stopped publishing actual farm gate prices, the prices for CY2000 and CY2001 were calculated according to the appropriate index of farm gate prices.

Production Policy

Production and marketing policy is formulated by the government and implemented by the Vegetable Production and Marketing Board of Israel (VPMBI). It is designed to ensure a smooth flow of tomatoes to the market. The main policy tool is guaranteed minimum prices for growers who declare in advance the area they intend to plant. The tables below indicate that the Board guarantees the price only on 70 tons/ha. Grants equal to 30 percent of total investment in greenhouse construction are offered by the government to growers in preferred regions:

Table 6. Guaranteed Farm Gate Prices for Fresh Greenhouse-grown Tomatoes in CY 2001
NS/mt

	Guaranteed Price			
Marketing season	ploughed	picked	Trigger price	Maximum guaranteed yield
	NS/mt	NS/mt	NS/mt	Mt/ha
January 1 to April 30	610	650	2,250	70
May 1 to June 30	460	500	2,250	70
July 1 to October 31	310	350	2,250	70
Nov. 1 to Dec. 31	610	650	2,250	70

Source: VPMBI, Economic Dept.

Exchange rate in January 2001: \$1=NS4.12

Note: The sum paid to the farmers differs, depending on whether the farmer ploughs the crop under before harvest or payment is made on a crop already picked.

Consumption

In recent years, annual consumption of fresh tomatoes has been relatively constant, varying between 165 and 170 tmt. Demand is filled by 150 tmt grown in Israel and 20 – 25 tmt from the Palestinian Authority (PA). In MY2000, due to political problems, some of the Palestinian tomatoes were replaced by increased production in Israel.

Fresh Table Tomatoes - Domestic Demand

According to Israel's Central Bureau of Statistics (CBS), in 2000 tomatoes make up 16 percent of the total direct consumption of fresh vegetables in the local markets. According to VPMBI per capita consumption has declined steadily since 1996. CY2000 saw another drop of 2 percent to 24.8 kg, 8 percent lower than the 1996 peak. VPMBI officials explain the reduction in demand by the population's improved standard of living which caused a shift from fresh to processed products.

Table 7. Per Capita Annual Consumption of Fresh Tomatoes
kg

1995	24.2
1996	26.8
1997	26.2
1998	25.6
1999	25.3
2000	24.8

Source: VMPBI

Consumer Prices

Stability is also shown in consumer prices, since most of the crop is grown in greenhouses and unaffected by weather conditions. Consumer prices in autumn 2000 were higher than the average due to the sharp drop in supply just prior to a spate of religious festivals when demand is usually at its peak.

Table 8. Fresh Table Tomatoes – Consumer Prices
NS/kg

Month	1998	1999	2000	2001
Jan	3.43	3.78	3.43	2.96
February	3.01	3.17	3.40	2.79
March	3.10	2.82	3.16	2.75
April	3.16	2.90	2.81	
May	3.32	2.52	2.47	
June	3.23	2.36	2.53	
July	2.73	2.83	2.95	
August	3.11	3.14	3.28	
September	5.45	3.61	3.54	
October	7.40	4.62	4.03	
November	4.97	4.15	4.28	
December	3.76	4.73	3.50	

Source: CBS, Price Statistics Monthly.

Exchange rate: \$1.00 = NS 3.58 (01/98), 4.10 (01/99), 4.20 (01/2000), 4.12 (01/2001)

Marketing

Retail chains account for an estimated 50 percent of total retail tomato sales. The Marketing Division of the VPMBI is concerned about the stagnant per capita tomato consumption in recent years. It is attempting to improve the quality of tomatoes offered the consumer and, in cooperation with the Vegetable Growers' Association (VGO) and the extension services of the Ministry of Agriculture (MOA), it has prepared an official quality standard for tomatoes and five other fresh vegetables. The standard, which will become law, defines growing methods, pesticide application, packaging, storage conditions, delivery to market and the law enforcement system. The law has been approved by the Finance Committee of the Knesset, Israel's parliament and soon will be signed by the ministers concerned. The Marketing Division of the VPMBI has commissioned a comprehensive survey of tomato consumption habits in Israel to assist in the development of a strategy to increase per capita consumption. The Board is also financing a sales promotion campaign to encourage vegetable consumption. It emphasizes the health advantages in consuming fresh vegetables.

**Table 9: Markup between Consumer Prices and Wholesale Prices of Fresh Tomatoes
NS/kg**

Calendar Year	Consumer Price	Wholesale Price	Difference %
1996	3.15	1.55	103
1997	3.28	1.69	94
1998	3.85	2.44	58
1999	3.30	1.77	86
2000	3.29	1.84	79

Source: VPMBI, Marketing Division. Annual average price of tomatoes.

Trade

General Trends

Increasing quantities of cherry tomatoes, which in recent years constitute the major part of tomato exports, enlarged total tomato exports significantly. The growers who had been unsuccessful for several years in their attempts to export at least 10,000 mt of fresh tomatoes annually, exported almost nineteen thousand metric tons in MY 1999. Twelve thousand of these were cherry tomatoes. The expanded exports are explained by a temporary shortage in foreign markets of tomatoes from Spain due to climatic problems there. In MY 2000 Israel exporters met increasing competition from cherry tomatoes from African countries, mainly Senegal, while the Spanish and Moroccan exporters returned to their regular delivery levels. The immediate result of the increased competition and a serious Israeli manpower shortage for picking, was a drop in exports. In MY 2000 twelve thousand metric tons were exported, 7,000 of which were cherry tomatoes. Ninety percent of the regular tomato varieties are exported in clusters. Israel's

main export markets for table tomatoes in MY 1999 and MY 2000 were Britain and Holland, followed by Germany, the U.S. and France. In the future, tomato export volume will be dictated mainly by increased competition from Spain and Morocco and from low cost countries in Africa and elsewhere. In the long term these factors can be expected to cause Israel's export volume to return to below 10,000 metric tons.

Exports of Organic Tomatoes

Three or four years ago, these tomatoes gave hope for a new expanding market. Expectations, however, have not been realized. The market is expanding more slowly than expected and market prices are dropping.

Trade Matrix – Fresh Tomato Exports

Value \$1,000					Quantity (mt)			
Year (CY)	1997	1998	1999	2000	1997	1998	1999	2000
U.S.	1,971	3,043	2,679	NA	NA	2,024	1,234	NA
EU	11,444	20,565	17,182	NA	NA	9,405	8,491	NA
Others	1,743	3,362	2,848	NA	NA	1,435	303	NA
Total	15,158	26,970	22,709	27,300	7,000	12,864	10,028	17,297
Of which: Cherry	14,404	21,221	19,444	20,617	NA	9,385	7,815	11,266

Source: CBS, Foreign Trade Annuals, 2000 - unpublished worksheets

* Excluding trade with Gaza Strip and West Bank.

Note CBS claims higher exports than shown by VPMBI, Agrexco and MOA figures. Apparently the CBS figures include exports from the Palestinian Authority.

**Table 10. Organic Tomato Exports - Quantities and prices
Mt and ECU/mt**

	MY 1997	MY 1998	MY 1999	MY 2000
Cherry tomatoes (mt)	730	1,078	1,500	1,600
FOB price (ECU/mt)	2,587	2,440	2,015	1,855
Regular tomatoes (mt)	456	479	650	1,100
FOB price (ECU/mt)	1,167	1,106	1,178	1,136

Source: VPMBI, Economics Dept., based on information supplied by the exporters.

Import Policy

According to the Paris Accords between Israel and the Palestinian Authority (PA), beginning in 1998 unlimited shipments of agricultural products from the PA are permitted. Initially, Israeli authorities feared that the Israeli market would be flooded with Palestinian tomatoes. At their highest, Palestinian shipments have not exceeded 20 tmt. In the future, it is expected that demand for tomatoes in the PA will increase, while production of tomatoes in the Gaza Strip will drop due to the serious water shortage and a shrinking area for agricultural use. The missing quantities may be replaced by tomatoes from Israel or from neighboring countries such as Jordan.

Implications for U.S. Trade

Israel and the Palestinian Authority are totally self sufficient in tomatoes. In the event of an acute shortage, which becomes less likely as the greenhouse area grows, limited imports of fresh, duty-free vegetables may be permitted. Even in such an event, it is unlikely that U.S. producers of fresh tomatoes will be able to compete with the low cost exporters of Spain, Morocco, Turkey and Greece whose supply lines are much shorter than from the U.S. Israeli producers of table tomatoes consider Europe the natural market for their products. Due to growing competition in Europe, its status as Israel's natural market may change and more Israeli produce could be exported to the U.S. Palestinian growers are also interested in the U.S. as a potential market for their greenhouse tomatoes. In any case, potential shipments are insignificant relative to the size of the U.S. market.

Table 11. Tariffs on Fresh Tomato Imports in 2001

Import Period	HS Code	MFN Tariff	Not to Exceed	Discount for U.S. fruit
June - October	0702.0010	NS0.82/kg	289.4%	10%
November - May	0702.0090	NS1.10/kg	289.4%	10%

Note: Under the U.S.-Israel 1996 Agreement on Trade in Agricultural Products, U.S. tomatoes enjoy a duty free tariff rate quota (TRQ) of 147 mt in 2001. In practice it is unlikely that U.S. growers can compete with lower cost producers in neighboring countries, even on the duty-free quota.

Processing Tomatoes

PSD Table						
Country:	Israel					
Commodity:	Tom. Paste, 28-30% TSS Basis					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		07/1999		07/2000		07/2001
Deliv. To Processors	307000	306960	256000	222795	0	174000
Beginning Stocks	1500	1500	8300	9420	3300	4849
Production	36800	35300	28200	25510	0	20880
Imports	0	0	0	0	0	0
TOTAL SUPPLY	38300	36800	36500	34930	3300	25729
Exports	17000	13980	20200	16431	0	12229
Domestic Consumption	13000	13400	13000	13650	0	12000
Ending Stocks	8300	9420	3300	4849	3300	1500
TOTAL DISTRIBUTION	38300	36800	36500	34930	3300	25729

Production

Planted area for processing tomatoes is dictated by the quantities processors are willing to receive. In preseason negotiations with the growers, the Israeli factories signed contracts for delivery of 260 tmt in crop year 2000. Actual production totaled 233 tmt, 28 percent lower than in the previous season. The average yield was 104 mt/ha, 5 percent higher than in 1999 and 18 percent higher than in 1998.

Production Trends in Processing Tomatoes

There are enough successful growers who, under current economic conditions, can supply all of the industry's needs. International prices affect planted area in Israel with a one year lag. It is becoming increasingly difficult for Israeli processors, especially of bulk products such as tomato paste, to compete in international markets. Table 14 shows the declining trend in Israel's product exports. They are no match in the market for the products of low cost, large scale producers like China. The pressure on the processors affects the size of planted area in Israel. According to the trade, it is unlikely that the planted area in Israel will return to the 300,000 mt levels of recent years unless the processors develop new products or enter some new niches.

Production Techniques

Ninety percent of the area is transplanted from nurseries, of which 90 percent is mechanically planted and 10 percent is hand planted. Ten percent of the total area is mechanically sown. Combines harvested 95 percent of the crop. Hand picking was used only in small marginal fields.

The Water Problem

Reduced water quotas generally are not a problem for most of the tomato processing industry, since tomatoes for processing are still the most profitable of all annual summer crops. It is a problem, however, for farmers who own fruit orchards of all kinds and must water them in order to prevent long term damages. The drastic cut in irrigation quotas has forced them to shift water from annual crops to maintenance of the tree crops.

Planted Area

Because of economics of size, eighty five percent of the crop is planted in the collective (kibbutz) sector, in which the average production area is between 50 and 100 hectares. The remainder is grown by the family farm (moshav) sector where the average production unit is 15 hectares.

In 2001, 1,740 hectares have been planted, compared to 2,200 hectares in crop year 2000. The planted area is divided regionally as follows:

Eastern Valleys (Jordan and Beit Shean):	800 ha (early ripening)
Jezreel Valley	400 ha
Western Galilee	300 ha
Upper Galilee	240 ha (late ripening)

The Golan, which in previous years was an important growing area, mainly for late tomatoes, abandoned tomato production due to the water shortage. Farms there shifted all their reduced water quota to their fruit orchards. The same happened in Western Galilee, where tomatoes were abandoned in favor of banana and avocado orchards. With irrigation quota cuts averaging 50 percent throughout the country, it was inevitable that many annual crops would be sacrificed in order to maintain the condition of fruit plantations. In the case of citrus, however, the effect was opposite: citrus has proven consistently to be unprofitable and thousands of hectares are being uprooted. In some cases the growers have turned to annual crops such as processing tomatoes as a temporary filler until they succeed in developing long term plans for the land.

Varieties

Brigade, which constituted 50 percent of all planted area in 1998, is disappearing due to its physical collapse mainly in hot weather and under mechanical harvest. Other types known as "Heinz" varieties are taking its place. The processors specify in the grower contracts the variety to be sown according to the planned harvest date and to the final product they intend to produce.

**Table 12. Actual Share of Total Area in 1998, 1999, 2000 and Recommended for 2001
Percent**

Variety	1998	1999	2000	2001
Total Area - ha				
Brigade	50.5	24.9	20.0	10.0
H8892	5.0	6.0	20.0	20.0
M82-1-8	0.1	0.3		
XPH5811	12.4	16.2	20.0	30.0
EPTX127	3.0	3.5	10.0	10.0
La Rossa	2.6	3.5	5.0	0.0
SS6109	2.4	6.2	5.0	0.0
AB4077	3.5	4.5	0.0	0.0
BOS3155	4.5	6.9	10.0	15.0
951	2.1	6.3	0.0	0.0
Giant	0.0	1.5	5.0	5.0
Others	13.9	20.2	5.0	10.0
Total	100.0	100.0	100.0	100.0

Source: MOA, Extension services.

Grower Prices

The basic price to growers was set at \$62.50/mt, \$2 lower than in the four previous years. The premium for higher Brix remained unchanged: \$3.25/mt per each 0.2 Brix degree to a maximum of \$6.50/mt but in the MY 2000 contract the average Brix level (basis for payment) was increased from 4.8 - 4.9 to 4.9 - 5.0, which actually reduced the basic price further. The result was a price which was 5.62 percent lower than in the previous harvest season. The realized average farm gate price was \$65.60/mt, similar to that in 1999 but 7.5 percent lower than in MY 1998. In real terms, i.e. discounted by the Consumer Price Index, in local currency the actual price in MY 2000 was three percent lower than in the previous year. The 2001 basic price has dropped by 8 percent to \$57.50/mt, but the standard Brix level remained as in the previous year. The premium and fine also have remained as before.

Table 13. Average Price for Industrial Tomatoes – 2000
\$/mt

Month	Base Price	Brix	Actual Price
Average 00	62.5	5.09	65.6
Average 99	64.5	4.95	65.3
Average 98	64.5	5.08	70.7
Average 97	64.5	4.96	68.7
Average 96	64.5	4.97	68.9

Source: VPMBI's statistics for MY2000

Deliveries to Processing Plants

Contracts for production of 260 tmt were signed at the beginning of 2000. Actual deliveries totaled 223 tmt. May deliveries, which were common in previous years, disappeared in MY 2000, due to the processors' demand. In MY 2000, 73 percent of the crop was delivered during the months of July and August. In previous years these two months consisted only of 60 to 65 percent of the total.

Quality

The Brix level is increasing steadily with time. That is the reason for raising the basic standard level from 4.7 - 4.8 to 4.9 - 5.0: another real price reduction of 4.2 percent for the growers. In MY 2000 average Brix was 5.09, 2.9 percent higher than in 1999 and the same as in 1998.

Main Products

The main products of the processing plants are: paste, puree, juice, peeled tomatoes (whole and diced), ketchup, pizza sauces and Licopen, an organically based edible red color. The market for Licopen collapsed in MY 2000 and orders to "Licored", the plant producing Licopen returned to their level in 1998 after expectations of increased demand in 2000 did not materialize.

Forecast for 2001

For crop year 2001, due to expectations of world tomato product surpluses, the processors reduced both the size of their orders from the growers and the basic price they are willing to pay. Contracts for production totaled 174 tmt at the base price of \$57.50/mt. Field conditions at the time of this writing (May 2001) are satisfactory.

Local Consumption

Local consumption of tomato products is increasing steadily. For years local consumption constituted 35 percent of production, but in MY 2000, with significantly lower exports and smaller production runs, local consumption represents as much as 50 percent or more of total supply. Most consumption is paste and sauces. American fast food chains have brought American habits and increased the demand for ketchup and pizza sauces in Israel. Part of this increased demand is satisfied by larger imports of ketchup, mainly from the U.S.

Trade

Exports have declined steadily in recent years. In CY 1995 the export value of processed products exceeded \$33 million. In CY 1998 it totaled \$22.5 million, dropping further in CY 1999 to \$13.9 million. CY 2000 saw the sharpest decline; value of exports totaled only \$6 million.

Table 14. Tomato Products: Total Exports
Metric tons

Calendar Year	Paste	Peeled	Sauce	Juice	Total
1995	18,452	24,123	12,115	2,054	56,744
1996	17,225	11,055	8,951	1,854	39,585
1997	10,355	13,980	6,250	3,065	33,650
1998	17,000	13,850	5,445	2,750	39,045
1999	14,500	7,768	2,832	1,570	26,670
2000	3,526	2,798	805	619	7,748

Source: Based on CBS Foreign Trade Statistics Annuals. 2000–unpublished worksheets

Table 15. Tomato Products: Total Exports
\$ thousands

Calendar Year	Paste	Peeled	Sauce	Juice	Total
1995	12,363	13,509	6,712	1,407	33,991
1996	11,876	6,191	4,959	1,270	24,296
1997	9,678	7,010	2,273	1,203	20,164
1998	9,632	10,075	2,173	637	22,508
1999	7,396	5,049	1,076	346	13,867
2000	3,078	1,765	457	708	6,008

Source: CBS Foreign Trade Statistics Annuals. 2000– Unpublished worksheets

**Table 16. Tomato Products: Exports to the U.S. and Canada
metric tons**

Calendar Year	Paste	Peeled	Sauce & Juice	Total
1995	4,373	19,223	1,620	25,216
1996	4,809	5,720	482	11,011
1997	2,131	7,567	33	9,838
1998	3,000	9,410	140	12,550
1999	12,388	3,400	230	16,018
2000	2,092	342	762	3,196

Source: Based on CBS Foreign Trade Statistics Annuals. 2000– Unpublished worksheets

**Table 17. Tomato Products: Exports to the U.S. and Canada
\$ thousands**

Calendar Year	Paste	Peeled	Sauce & Juice	Total
1995	2,929	10,851	873	13,753
1996	3,222	3,203	270	6,695
1997	1,890	4,108	180	6,178
1998	3,848	6,459	432	10,739
1999	6,318	2,210	51	8,579
2000	1,826	216	440	2,482

Source: CBS Foreign Trade Statistics Annuals.2000– Unpublished worksheets.

Trade Matrix – Tomato Products Exports Only
\$ thousands

Calendar Year	1996	1997	1998	1999	2000
U.S.	6,676	6,149	10,703	8,579	2,482
France	4,388	1,811	1,407	200	344
Germany	1,380	1,198	1,241	1,288	996
UK	1,795	1,923	1,789	1,039	588
Other EU	794	370	225		581
Total EU	8,357	5,302	4,662	2,527	2,509
Sweden	283	257	196	160	97
Finland	151	164	101	123	0
Eastern Europe	3,781	5,281	3,731	766	442
Canada	19	29	36		0
Japan	1,351	629	1,111	358	99
Other Asia	626	-	482	314	60
Australia	833	529	241	82	64
All Others	1,145	873	287	316	255
Grand Total	24,296	20,164	22,508	13,867	6,008

Source: Foreign Trade Statistics Annuals. 2000 – Unpublished worksheets

Table 18. Duties on Imported Tomato Products - CY 2001
Percent and NS/kg

Product	Duty Free Quota mt	HS Code	MFN Rate	Tariff on U.S. Goods
Peeled	182	2002.1090	17.1% + NS0.49/kg BNM than 64.3%	15.4% + NS0.44 BNM than 57.9%
Powder	-	2002.9020	8%	Exempt
Paste: in containers >100 kg		2002.9010	12.9% + NS1.63/kg BNM than 64.3%	11.6% + NS1.47/kg BNM than 57.9%
Other paste		2002.9011	17.1% + NS1.63/kg BNM than 64.3%	15.4% + NS 1.47/kg BNM than 57.9%
Juice: in containers >100 kg		2009.5091	13.2% + NS0.22/kg BNM than 69.1%	11.9% + NS0.20/kg BNM than 62.2%
Other juice		2009.5099	20.7% + NS0.22/kg BNM than 69.1	18.6% + NS0.20/kg BNM than 62.2%
Sauce	-	2103.2000	12%	Exempt

Source: Ministry of Finance, Customs and VAT Authority

Trade Matrix – Imports of Tomato Products
\$ thousands

Country	1996	1997	1998	1999	2000
U.S.	361	12	577	683	851
UK	0	0	12		0
Italy	0	0			44
Turkey	258	296	310	215	198
All others	14	0	18	44	67
Total	633	308	917	942	1,160

Source: CBS, Foreign Trade Statistics. 2000 unpublished worksheets.

PSD Table						
Country:	Israel					
Commodity:	Tomato Sauce					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		07/1999		07/2000		07/2001
Deliv. To Processors	307000	306960	256000	222795	0	174000
Beginning Stocks	1850	1850	2850	4928	600	1648
Production	12500	13498	10250	8920	0	7308
Imports	1500	1500	1500	1600	0	2000
TOTAL SUPPLY	15850	16848	14600	15448	600	10956
Exports	6000	4800	7000	6800	0	3000
Domestic Consumption	7000	7120	7000	7000	0	7200
Ending Stocks	2850	4928	600	1648	600	756
TOTAL DISTRIBUTION	15850	16848	14600	15448	600	10956

PSD Table						
Country:	Israel					
Commodity:	Canned Tomatoes					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		07/1999		07/2000		07/2001
Deliv. To Processors	307000	306960	256000	222795	0	174000
Beginning Stocks	3640	3640	5440	8105	1690	3809
Production	24600	24865	21000	17824	0	14400
Imports	200	200	250	280	0	300
TOTAL SUPPLY	28440	28705	26690	26209	1690	18509
Exports	15000	12500	17000	14000	0	8509
Domestic Consumption	8000	8100	8000	8400	0	8500
Ending Stocks	5440	8105	1690	3809	1690	1500
TOTAL DISTRIBUTION	28440	28705	26690	26209	1690	18509