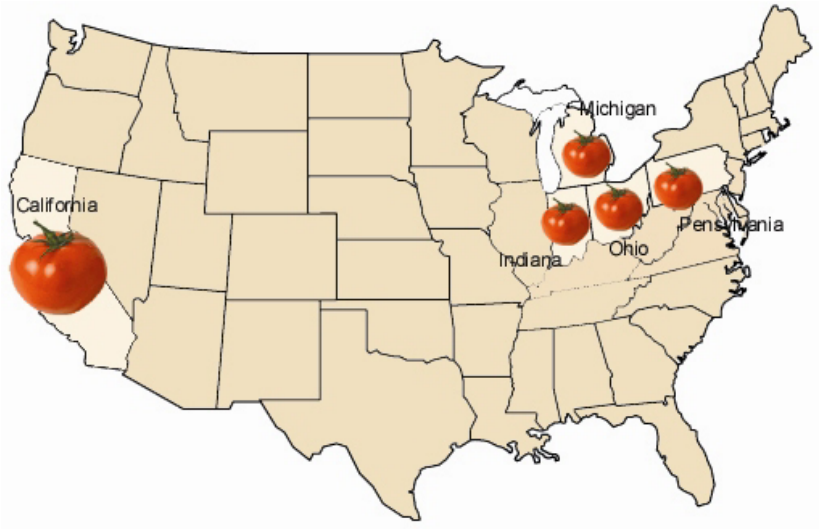
Tomato processing in California and the rest of the USA

California, situated in the western-most part of the United States of America, covers the largest and most vast geographical areas within the U.S. Continent ranging from the lowest elevation of 85 meters below sea level up to an elevation of 4 350 meters with a total area of 250 000 square kilometers. With its exceptional soil, climate and water supply, California is truly the tomato's home base. Today, California grows 95 percent of the USA's processing tomatoes and approximately 30 percent of the world processing tomatoes production.

California ended the 2005 season with a total production of 8.7 millions metric tons (9.6 millions short tons), and an average yield per acre of 36.4 tons (81.7 MT/ha), 10% lower than in 2004. California's success can be attributes to its nutrient rich soils, nearly ideal climate conditions, water availability, and its commitment to research, development and adoption of technological innovations.



There are 21 different counties that produce tomatoes in California. Processing tomatoes are largely grown in the Central Valley, which can be divided into the two geographical locations of the Upper Central Valley and the Lower Central Valley, which span a distance of 1 410 kilometers and have a widely varied climate. During the growing months temperatures can reach a high of 100 degrees Fahrenheit (38°C) or above and drop to lows of 40 degrees Fahrenheit (4°C) or below.

The amount of precipitation also varies considerably depending upon geographical location. The average annual rainfall ranges from as little as 26.9 cm at the far end of the Lower Central Valley up to 44.4 cm in the Upper Central Valley. As a result, the demand, supply and cost of irrigation also varies widely throughout the different regions. The Lower Central Valley has greater restrictions and higher demand for irrigation water thereby raising the cost well above the other regions of the state. The most widely used types of irrigation systems are open furrows and sprinklers. Drip irrigation has also come into use over the last decade and further research will insure greater utilization in the future.

The Lower central Valley begins planting anywhere from late January to early April and harvest is from mid June to mid-August. In the Upper Central Valley planting extends from February to mid-June and harvest can begin as early as July and extend as late as November. A small percentage of tomatoes are grown along the

Central Coastal Valleys. This region usually plants from March to May and harvest is from August to mid-October.

While growers in California predominantly plant using the traditional direct-seeding method, the use of transplants has begun to take on a new popularity and now accounts for more than 35% of the acreage. There are over 200 varieties of tomatoes grown of which nearly all are hybrids. A few of the top ranking varieties are BOS 3155, Heinz 9665, Heinz 9557 and APT410.

YEAR	CALIFORNIA				OTHER STATES	US TOTAL
	Processing tomato production (metric tonnes)	*First delivery Point (USD/ton)*	*Yield (tons per acre)*	*Yield (MT per ha)*	*Processing tomato production (metric tonnes)*	*Processing tomato production (metric tonnes)*
1983	5 970 000	$ 53,70	25,5	57,4	1 059 840	*7 029 840*
1984	6 590 000	$ 52,00	27,5	61,9	1 091 160	7 681 160
1985	6 100 000	$51,40	28,1	63,2	1 077 130	7 177 130
1986	6 480 000	$51,00	30,8	69,3	913290	7 393 290
1987	6 700 000	$ 46,40	31,3	70,4	896 580	7 596 580
1988	6 550 000	$ 48,20	29,0	65,3	859 920	7 409 920
1989	8 590 000	$ 55,50	31,1	70,0	894 470	9 484 470
1990	9 310 000	$ 55,20	30,0	67,5	1 045 260	10355260
1991	9 890 000	$ 52,90	31,7	71,3	982 990	10872990
1992	7 930 000	$46,10	33,1	74,5	846 470	8 776 470
1993	8 950 000	$ 48,30	32,7	73,6	726 540	9 676 540
1994	10 750 000	$ 50,90	34,6	77,9	792310	11 542 310
1995	10 610 000	$ 54,00	33,5	75,4	676 040	11 286 040
1996	10 660 000	$ 53,45	34,1	76,7	748 740	11 408 740
1997	9 340 000	$ 50,85	35,9	80,8	633 259	9 973 259
1998	8 890 000	$ 54,65	31,8	71,6	504810	9394810
1999	12 239 300	$ 59,85	37,2	83,7	596 720	12 836 020
2000	10 289 500	$ 50,75	37,9	85,3	672 740	10859240
2001	8 640 140	$ 49,40	34,0	76,5	608 120	9 248 260
2002	10 521 000	$50,30	38,0	85,3	454 000	10 454 000
2003	8 391 770	$ 50,20	33,8	74,3	363 000	8 754 770
2004	10 589 000	$50,20	41,5	91,4	487 000	11 076 000
2005	8 706 000	$ 50,00	36,4	81,4	550 000	9 256 000

There are 14 main processors who operate 19 plants located trough the Central Valley of California, plus 6 manufactures of only sundried and dehydrated tomato products. A full range tomato products from dehydrated, organic, paste, puree, juice, whole peeled, sliced, diced, ketchup, sauces, salsas, and many others is manufactured from these primary products.

Over the last twenty years, the US processing tomato industry has realized substantial growth and changes. In the late 1970's, total processing tomato

production averaged 7.3 million short tons (6.6 million metric tones), while the average crop size over the last five years was 10.2 million short tons (9.3 million metric tones), a 40 % percent increase. Much of the increase can be attributed to improved yields and increased efficiency at the grower and processor levels. The industry has restructured to consolidate production capacity, shifting towards more direct marketers: while total paste processing capacity has risen from 1 298 567 lbs/hour to 1 743 851 lbs/hours between 1992 and 2005, the direct marketers capacity went from 483 961 lbs/hour to 1 327 299 lbs/hour over the same period, while the number of plants decreased from 16 to 12.
Production increase is driven by rising consumer demand, as per capita use of processed tomato product rose from an average 28.8 kg in the 1980's to 33.7 kg in 2002/2003.

2005 California Tomato Paste Processing Capacity

Processor	Facility Location	Year Built	2005 Tomato Capacity for Tomato Paste Tons/Hour	2005 Equivalent Tomato Paste (Pounds/Hour)	Equivalent Tomato Paste (Tonnes/Day)
MARKETERS					
Morning Star	Williams	1995	632	207,2	2255
Los Gatos 1	Huron	1991	463	151,8	1652
Liberty Packing	Santa Nella	1975/02	447	146,6	1596
Morning Star	Los Banos	1990	443	145,3	1581
SK Foods	Lemoore	1990	414	135,7	1477
Rio Bravo 1	Bakersfield	2000	322	105,7	1151
Ingomar (1)	Los Banos	1983	319	104,8	1140
PCP (1)	Woodland	1943/02	283	92,8	1010
Toma-Tek	Firebaugh	1989	227	74,5	811
Ingomar #2 (1)	Los Banos	2000	226	74,2	808
SK Foods/CCCC	Williams	1982	196	64,2	699
Stanislaus	Modesto	1942	75	24,6	268
Sub-Total	**12**		**4,047**	**1,327,299**	**14 450**
REMANUFACTURERS					
Unilever Bestfoods	Merced	1973	306	100,241	1091
Campbell Soup	Dixon	1975	234	76,592	834
Conagra Grocery (Hunts)	Oakdale	<1970	208	68,046	741
Conagra Grocery (Hunts)	Helm	1990	187	61,448	669
Campbell Soup	Stockton	1967	163	53,407	581
Del Monte/Contadina	Hanford	1976	88	28,981	315
Unilever Bestfoods (Ragu)	Stockton	<1970	85	27,837	303
Sub-Total	**7**		**1,271**	**416,552**	**4 535**
Total	**19**		**5,318**	**1,743,851**	**18 984**

(1) Grower owned and controlled processor.

Definitions:

Marketers: plants making paste for the main purpose of selling it to another party. Remanufacturers: make paste for use internally

Changes from last season:

No operations closed this year.

Source: The MorningStar Company - www.morningstarco.com

Given the import/export results of recent years, the US industry can be classified as an essentially domestic oriented industry. Over the last five marketing years (1999 to 2003), the fresh tomato equivalent of US exports stands at approximately 986 000 tonnes on average per year, out of a total average production of 9.85 million tonnes. In terms of net results of the trade balance, only slightly more than 10% of the annual production is shipped abroad. Only very small quantities of foreign products reach this market.

In terms of geographical destinations, the trade in tomato products has been mainly focussed on the rest of the American continent. The following table underlines this

(tonnes)	EXPORTATION US *EXPORT US*			IMPORTATION US *IMPORTS US*		
	2003/2004	2002/2003	2001/2002	2003/2004	2002/2003	2001/2002
	Concentré de tomates/Tomato paste (codes 200290010/20/60)					
TOTAL EUROPE/*EUROPE*	**7 328**	**7 427**	**29**	**593**	**1 757**	**1 977**
TOTAL AFRIQUE/*AFRICA*	**186**	**747**	**0**	**0**	**0**	**5**
TOTAL AMERIQUE/*AMERICA*	**89 900**	**72 202**	**66 221**	**5 083**	**5 881**	**9 197**
TOTAL OTHER COUNTRIES	**30 224**	**34 535**	**28 019**	**1 261**	**3 466**	**7 418**
TOTAL	**127 639**	**114 993**	**94 269**	**6 937**	**11 105**	**18 596**

(tonnes)	Purée de tomate/Tomato puree (<12%) (codes 200290040/50/80)					
TOTAL EUROPE/*EUROPE*	**163**	**11 496**	**9 271**	**2 520**	**2 140**	**3 678**
TOTAL AFRIQUE/*AFRICA*	**0**	**0**	**0**	**0**	**15**	**0**
TOTAL AMERIQUE/*AMERICA*	**4 321**	**2 433**	**4 205**	**667**	**997**	**608**
TOTAL OTHER COUNTRIES	**8 073**	**2 454**	**2 493**	**1 667**	**116**	**27**
TOTAL	**12 558**	**16 383**	**15 969**	**4 853**	**3 270**	**4 313**

(tonnes)	Conserves de tomates/Canned tomatoes (codes 200210020-80)					
TOTAL EUROPE/*EUROPE*	**649**	**5 524**	**5 510**	**1 238**	**1 447**	**2 038**
TOTAL AFRIQUE/*AFRICA*	**15**	**0**	**4**	**0**	**0**	**12**
TOTAL AMERIQUE/*AMERICA*	**29 332**	**27 127**	**27 438**	**10 824**	**10 069**	**7 395**
TOTAL OTHER COUNTRIES	**7 326**	**2 907**	**2 880**	**2 570**	**3 459**	**4 824**
TOTAL	**37 322**	**35 558**	**35 832**	**14 632**	**14 975**	**14 270**

(tonnes)	Sauces & ketchup/Sauces & ketchup (codes 21032020/40)					
TOTAL EUROPE/*EUROPE*	**12 588**	**11 695**	**12 775**	**1 372**	**1 917**	**1 942**
TOTAL AFRIQUE/*AFRICA*	**731**	**600**	**305**	**0**	**0**	**0**
TOTAL AMERIQUE/*AMERICA*	**129 829**	**121 114**	**108 641**	**24 438**	**22 690**	**22 008**
TOTAL OTHER COUNTRIES	**35 598**	**29 207**	**30 440**	**190**	**36**	**143**
TOTAL	**178 746**	**162 616**	**152 161**	**26 000**	**24 643**	**24 093**

(source: US Department of Commerce)

polarisation affecting both export and import volumes. Over the past five marketing years, the preponderance of European countries (in the geographical sense) as external suppliers of the USA has shrunk to the advantage of countries of the American continent (both North and South). Overall, the volumes of tomato products imported into the USA have fallen from 60% to 10%, whereas the share of countries like Canada, Mexico and Chile has grown from 26% to 78%.

The CTGA & CLFP Associations

Within the WPTC, California is represented both by the California Tomato Growers Association (CTGA) and the California League of Food Processors (CLFP).

*CTGA is nonprofit association of California processing tomato growers with voluntary membership. Its services include price negotiations, information collection and dissemination, representation among political and public audiences, direction of research and direction of inspection services.
*CLFP is an association of 65 companies engaged in the canning freezing, and dehydrating of California fruits and vegetables. Every primary processor of tomatoes is an active member of the association whose primary mission is to represent the interests of food processors before all levels of California State government. CLFP also conducts research programs for several California processing commodities. The CLFP tomato statistics program issues a wide variety of reports throughout the year, including quarterly inventory reports on US tomato stocks.