

Tomato processing in Spain

Spain currently accounts for almost 22 % of the volume processed within AMITOM countries, with an average over the past five seasons of 1.97 million tonnes. Spanish production has grown rapidly in the last few years and reached 2.85 millions MT. in 2005. Since the creation of AMITOM in 1978/79, this tonnage has increased by more than 400%, the biggest increase amongst the European countries.

Processing tomatoes are mainly grown in the areas where the factories are located: about three quarters of the tonnage in Extremadura (irrigated by the Guadiana river), 10 % in Andalusia, 12% in the Ebro Valley (Navarra, Rioja and Aragon), and the rest in other areas like Toledo, Murcia, Valencia, and the Ebro delta.



Spain is the Mediterranean country with the longest processing season. It starts in mid-July and finishes end of October/early November. The characteristics of each of the 3 major production areas are as follows:

1 - Extremadura: 75 % of the total tonnage

Silty soils with varying sand content. Little risk of frost in the planting period. High temperatures in July with some risk of blossom drop. Between 1992 and 1995, this area suffered from a bad drought despite a water holding capacity of about 8,000 hm³, which ended

during the winter of 95/96 when very heavy rains reconstituted the water reserves to a level never reached before. Since the Spring of 1997, water reserves have remained in the 5 000 to 7 000 hm³ bracket. Tomato farming units were, for a long time, structured around a family-type farm with a prevalence of relatively small holdings. However, the evolution towards larger farms continues at a great speed thanks to the growing popularity of mechanization. Producers have set up cooperatives which sign contracts with processors, some of whom supply services and input (plants, mechanical harvesting, etc). The most important ones are ACOEX, ACOPAEX and CASAT which together represent around 60% of the tonnage. Direct seeding used to be widespread, but the use of plug-seedlings is becoming more frequent. Irrigation is mainly carried out according to the gravitational method with furrows, or with sprinklers, and drip irrigation continues to develop. Harvesting usually begins mid-July. A minority of growers own their own harvester, but they mostly hire the services of private or co-operative harvesting firms. The oldest of those firms was created by processors, then two major nurseries each created a new service company to carry out all the work, from transplanting to

machine harvesting. Average yields are about 65t/ha, but in some areas, new land has given exceptional yields of about 80-120 t/ha.

During the past 3 years, the installed capacity has greatly expanded as several cooperatives have set up their own processing plants: in total 5 plants have started operations North and South Extremadura and in 2004, these new players processed a total of 520 000 MT. of fresh tomatoes, representing 24 % of the total pack. They directly compete with private and more established processors.

2- Andalusia : 10 % of the total tonnage and growing

South of Extremadura, a new area of production was developed in the early 1990's, around Lebrija in Andalusia, near Seville. Growers have set up cooperative which developed the use of drip irrigation, obtaining yields exceeding 80 to 90 t/ha. New processing capacity installed in 2003 and 2004 should push Andalusia share of the Spanish output up to 20 % in the coming years.

3 - The Ebro Valley: 12% of the total tonnage

The soils here are silty and, due to the weather conditions, the crops are later than in Extremadura. There is some risk of late frost in April and the Fall can be wet. Harvest generally begins in the second week of August, and if the Fall is dry, it can continue until the end of October. The farms in the Valley are mostly family holdings and 40% of their tomatoes go for peeling. The use of plug-seedling transplants is generalized, and irrigation is still mainly done with furrows. Yields exceed steadily 60 t/ha on average. Processing firms in the region have specialized their operations around whole peeled tomatoes, but also in the production of "tomato frito", a Spanish speciality.

There are more than 75 tomato processing firms, 15 of which are large factories located in Extremadura, producing mainly paste. They account for 80% of total production and 95% of paste production. Currently, about 70 000 tonnes of 28/30% paste produced in Spain are consumed on the domestic market as second-stage processed goods. The remainder is exported, including a large share as tomato powder, of which Spain is the largest manufacturer in the world. The production of diced tomatoes has also rapidly increased in Spain, to reach more than 60 000 MT. of finished products in 2005.

ANNEE	Production totale de tomates (1 000 tonnes)	Production de tomates transformées (1000 tonnes)	Evolution du volume transformé (index 100 en 78)	Evolution du volume transformé (en % AMITOM)	Evolution du prix des tomates fraîches (US \$/100kg bord champ)
1978/79	2223	586	100%	10,60%	5,21
1979/80	2204	553	94%	8,00%	6,74
1980/81	2 173	541	92%	8,00%	6,33
1981/82	2 159	568	97%	8,60%	5,1
1982/83	2257	585	100%	8,80%	4,53
1983/84	2258	654	112%	8,00%	3,86
1984/85	2511	743	127%	7,00%	3,76
1985/86	2429	746	127%	8,50%	4
1986/87	2400	473	81%	7,80%	5,27
1987/88	2447	573	98%	9,10%	6,59
1988/89	2 581	679	116%	9,70%	7,32
1989/90	2964	818	140%	9,00%	7,39
1990/91	3 160	1 022	174%	11,60%	10,08
1991/92	2 665	845	144%	10,30%	10,06
1992/93	2 647	790	135%	10,80%	12,25
1993/94	2806	961	164%	12,70%	9,36
1994/95	3066	1 279	218%	14,40%	10,04
1995/96	2705	916	156%	9,70%	12,84
1996/97	2 780	1 183	202%	11,30%	12,4
1997/98	2950	990	169%	11,60%	10,4
1998/99	3548	1 182	202%	10,80%	10,23
99/2000	3570	1 510	258%	12,30%	9,16
2000/01	3597	1 318	225%	11,94%	8,4
2001/02	3972	1 463	249%	14,26%	7,6
2002/03	3980	1 587	271%	15,40%	8,3
2003/04	3947	1 747	298%	14,20%	9,7
2004/05	4442	2200	375%	14,86%	10,6
2005/06	4474	2850	486%	21,70%	-
YEAR	Total tomato production (1000 tonnes)	Processing tomato production (1000 tonnes)	Evolution of the processed volume (index 100 in 1978)	Evolution of the processed volume (in % Amiton)	Evolution of price of fresh tomatoes (US \$/100 kg farm gate)