



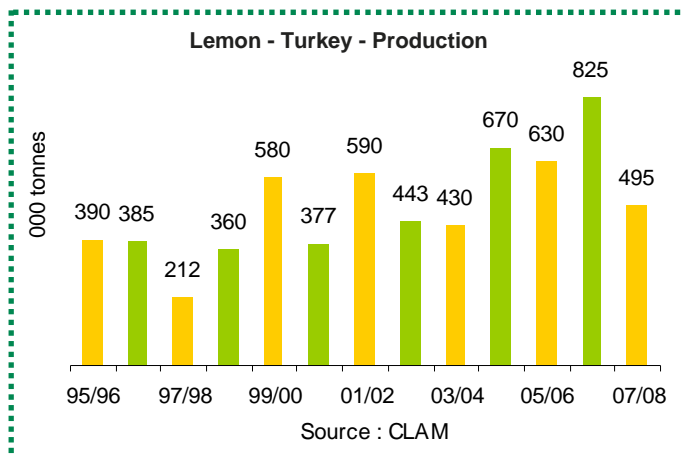
Producer country sheet

Lemon in Turkey

In a little more than a decade, Turkey has become the third largest lemon producing country in the world and one of the leading players in world trade in this fruit. Concentrated in the province of Mersin in the eastern Mediterranean region, exporters have succeeded in profiting from their advantages in closeness to markets and business organisation to make the most of the strong increase in demand for winter lemons on Eastern European markets.

Location of the plantations

About 70% of the total of 20 000 hectares of plantations is concentrated in the Mersin region in south-east Turkey. The farms are on a narrow coastal strip about 60 km long between Mersin and Silifke. The climate is typically Mediterranean as the Taurus mountains form protection against cold northern weather. The availability of water varies according to the plantation but is generally sufficient (average rainfall is about 600 to 700 mm) and winters are mild and less frosty than in the neighbouring zones. The plantation area seems to have stabilised in the last few years and is tending to shift away from the coast as a result of urban pressure and become concentrated further inland (pioneer crops on terraces on embankments in the foothills of the Taurus). The rest of the plantations are centred in the Antalya region (around Antalya and Alanya) and on the Aegean coast between Izmir and Mugla.



Production

This traditional crop developed very slowly until the mid-1990s, when the harvest was about 450 000 t. After the 1997-98 season marked by severe frost, growth increased markedly with the strong increase in demand in the Eastern European countries. Production exceeded 800 000 t in 2006-07 (according to the Turkish statistical institute, production was 710 401 tonnes in 2006) before frost hit again, damaging the 2007-08 harvest. The sector is very scattered and little structured and producers' organisations have had little power so far.

Farms are generally very small, averaging less than one hectare, and have a low technical level on the coastal strip where farmers also grow other crops (vegetables and temperate fruits). The technical level is higher and orchards are larger north of Mersin, a region more specialised in growing 'Interdonato'. The main phytosanitary problems are mal secco, Phytophthora and mites.



Lemon — Turkey — Production calendar												
	S	O	N	D	J	F	M	A	M	J	J	A
Interdonato												
Lamas												

Stored fruit

because of the frost risk. However, sales continue until August as the fruits are stored in natural caves in the Urgup region. 'Interdonato', an early variety harvested before the winter, is mainly planted in zones exposed to frost north of Mersin. It forms about 25% of total production. Other varieties are grown such as 'Lamas', 'Yediveren', 'Meyer', 'Molla Mehmet' and 'Italian Memeli'.

Varieties

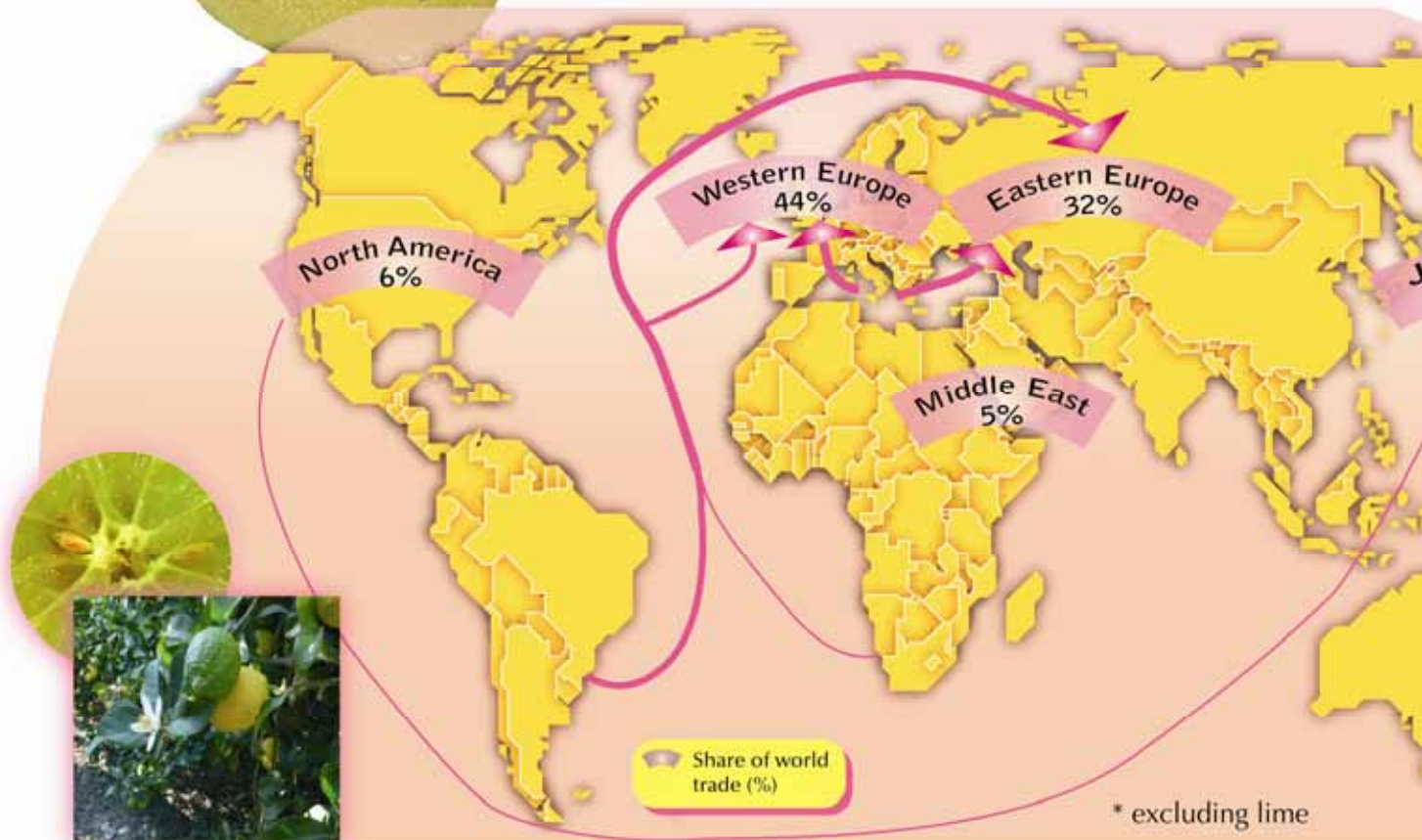
About 60% of production consists of 'Kütdiken' and its clones. There is only one flowering and the harvest must be finished before the coldest part of the winter

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Lemon...

production: 7-8 million tonnes*

world trade: 1.5 million tonnes



Lemon — United States imports										
tonnes	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Total, incl.	22 016	22 865	25 670	33 697	33 108	27 629	34 635	34 656	34 730	66 460
S. Hemisphere	5 848	8 047	14 484	24 349	11 181	15 704	19 988	20 660	15 727	27 688
Chile	5 848	7 896	6 892	6 796	10 719	14 136	19 324	20 295	15 709	27 591
Argentina	0	0	7 314	17 552	0	0	0	0	0	0
Australia	0	148	231	0	77	35	216	19	7	97
South Africa	0	3	47	0	385	1 534	448	347	12	0
N. Hemisphere	16 168	14 819	11 186	9 348	21 927	11 925	14 647	13 996	19 003	38 771
Mexico	417	248	374	389	1 028	2 116	9 025	12 250	12 423	21 854
Spain	12 391	8 464	9 151	4 536	19 827	5 265	3 693	977	6 242	15 230
Turkey	0	3	22	1	0	25	8	9	19	906
Bahamas	3 238	5 740	1 315	4 209	826	4 035	1 272	388	0	0
Dom. Rep.	122	360	240	188	224	278	458	231	302	364
Italy	0	4	11	22	0	39	17	3	1	417
Cyprus	0	0	0	0	22	167	141	109	0	0
Israel	0	0	72	5	0	0	34	29	16	0

Source: US customs (code 0805302000 then 0805502000)

Source: EU Customs (code 0000002000 from 0000002000)

Lemon — Japanese imports												
tonnes	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total, incl.	92 063	87 497	85 630	84 578	91 655	84 321	88 193	87 974	82 536	76 686	73 086	60 864
United States	86 652	78 184	76 755	72 614	73 881	65 227	65 017	62 699	56 969	54 445	51 964	37 397
Chile	1 129	3 027	4 560	5 841	10 713	13 016	14 969	13 954	14 396	13 498	16 426	18 579
South Africa	1 266	3 720	1 713	2 645	4 720	3 035	4 141	8 438	7 733	6 858	3 140	2 675
New Zealand	160	364	648	1 037	834	1 063	1 591	919	825	979	1 160	1 316
Argentina	0	0	0	0	0	0	0	701	2 287	839	385	339
Australia	2 852	2 174	1 920	2 193	1 286	1 864	2 267	1 264	206	34	8	306
Mexico	3	17	16	0	0	0	0	0	120	0	0	197
Spain	0	0	17	248	220	99	207	0	0	0	0	44
China	0	0	0	0	0	0	0	0	0	1	1	10

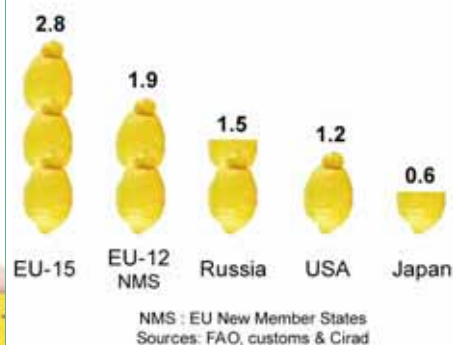
Source: Japanese customs (code 080530010 then 080550010)

Lemon			EU imports by entry point		
Austria	3%		3%		
Belgium	6%		3%		
Romania	-		4%		
Spain	4%		4%		
Greece	2%		6%		
UK	10%		10%		
Poland	-		11%		
Italy	6%		11%		
Netherlands	20%		11%		
Germany	22%		13%		
France	22%		13%		

1996-1997
Source: Eurostat

Lemon

Per capita consumption (kg/year)



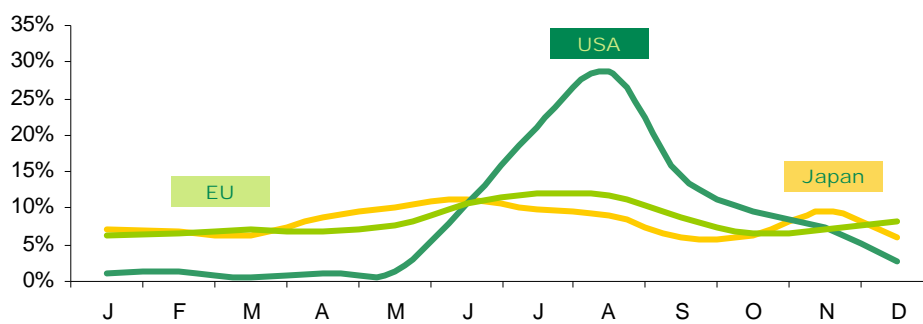
Lemon World production*	
2007	tonnes
World (lemon)	6 815 000
Argentina	1 500 000
Spain	1 090 000
Turkey	825 100
United States	637 800
Iran	615 093
Italy	582 577
Egypt	334 400
South Africa	191 650
Chile	167 000
Lebanon	113 200
World (Lemon & lime)	2 400 800
India	1 617 800
China	783 000

Lemon World exports	
2007	tonnes
World	1 555
Spain	497
Argentina	355
Turkey	328
United States	116
South Africa	100
Italy	39
Chile	47
Egypt	23
Uruguay	14
India	11
Jordan	7
Cyprus	6
China	4
Iran	4
Malaysia	4

Lemon World imports	
2007	tonnes
World	1 555
EU-27, of which	745
France	104
Germany	99
Netherlands	88
Italy	84
Poland	84
Russia	214
Japan	61
Canada	56
Ukraine	53
United States	35
Saudi Arabia	31
China	30
Serbia	21
United Arab Em.	19

* Production of lemon and lime not separated in statistics of certain countries / Sources: FAO, customs EU, USA, Japan

Lemon - Supply calendar

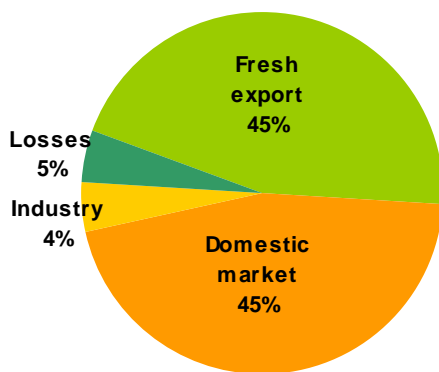


Sources: customs USA, EU, Japan - 2006-07 average

Lemon — EU-25 — Main supplying countries

tonnes	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Total, incl.	523 779	534 048	530 947	588 557	588 661	594 714	784 585	754 117	744 999
Winter lemon season	383 291	392 483	366 773	414 611	356 857	373 332	472 970	511 974	490 820
Spain	322 566	317 081	315 139	355 310	316 765	329 262	332 070	407 723	380 401
Turkey	30 624	39 360	13 652	30 979	10 565	14 207	85 641	62 151	61 002
Italy	18 106	21 673	26 361	20 563	19 188	21 993	40 339	34 339	41 906
Greece	6 037	6 306	4 742	1 953	4 346	2 655	2 043	1 936	2 667
Cyprus	5 368	7 432	6 543	5 427	4 791	4 626	7 447	3 700	2 562
Egypt	22	220	22	96	272	350	1 501	904	841
Portugal	58	196	186	180	312	87	1 031	536	731
Israel	88	82	0	40	369	66	1 984	615	391
United States	337	54	19	16	104	47	569	0	190
Morocco	71	62	42	28	127	40	64	2	82
Iran	14	17	60	13	13	49	49	60	38
Tunisia	1	0	7	4	5	0	232	8	9
Summer lemon season	140 489	141 565	164 174	173 947	231 804	221 382	311 615	242 143	254 179
Argentina	119 936	115 644	129 132	145 179	199 267	175 851	249 449	185 303	214 316
South Africa	10 873	18 531	22 824	22 528	23 519	35 005	46 571	42 466	30 313
Uruguay	8 757	6 473	11 382	5 362	7 584	9 256	13 512	11 983	9 265
Chile	22	21	100	3	414	198	95	25	187
Brazil	2	36	116	95	386	848	1 573	2 366	96
Zimbabwe	899	861	620	779	636	225	415	0	2

Note: EU-15 until 2003-04 then EU-25 / Source: Eurostat (code 08053010, then 08055010 from 2002-03)

Lemon - Turkey - Outlets

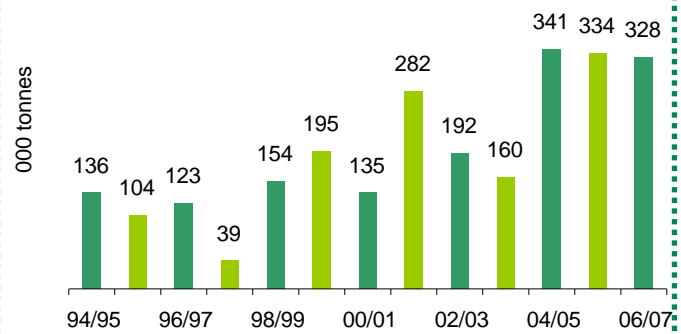
Source: CLAM

Outlets

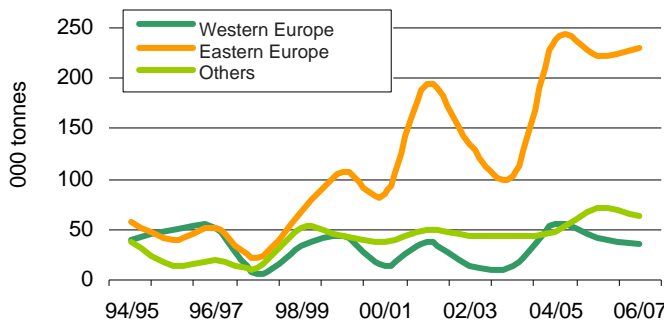
Practically the whole of crop is sold on the fresh lemon market as there are no large juice production units in Turkey. Exports form the main outlet, accounting for more than 300 000 t. The domestic market, taking mainly large fruits, is growing, in particular in the Istanbul region and near the sea of Marmara where the standard of living is rising rapidly.

Exports

Exports have rocketed since the last part of the 1990s, increasing from 120 000-130 000 t to 330 000-340 000 t in recent seasons. Turkish professionals have succeeded in profiting from the strong demand in the Eastern European countries for reasons of the proximity of the latter and downstream integration which, in particular, makes payment secure. The main markets in this zone that takes nearly 70% of Turkish lemon exports are those of Russia, Ukraine and Romania. Western Europe, where quality and traceability requirements are greater, is now only a secondary outlet used mainly between the end of the summer season and the start of the Spanish season. Shipments to

Lemon - Turkey - Exports

Source : CLAM

Lemon - Turkey - Exports by destination

Source : CLAM

other destinations are very limited, except for those to Saudi Arabia. With rare exceptions, exporters do not have their own plantations and buy fruits on a contract or spot basis from independent growers. The sector receives increasingly limited incentives from the government (about USD70 per tonne in 2006 according to USDA, in the form of exoneration from various taxes). Representation at the international level is handled by the AKIB, the fruit and vegetable coordinator for the union of exporters.

Logistics

The fruits for Russia and Ukraine first travel by road to the Black Sea ports (Sinop, Zonguldak and Bartin). They are then loaded for shipping to Novorossiysk (Russia), Odessa or Ilichevsk (Ukraine). Average transport time to the two countries is six days. The other countries in eastern and central Europe are supplied by road (Bulgaria, Romania, Hungary, Slovakia, Poland and the Baltic countries). The fruits for the western part of the EU are also exported mainly by road (80% in 2005-06) using several routes via central Europe and Italy. Average transport time is six days. Shipment by sea alone concerns only 20% of export volumes. The fruits are loaded in the ports of Mersin and Iskenderun and shipped to the Mediterranean ports (Marseilles) or more commonly to the United Kingdom (Thamesport and Sheerness) or northern Europe (Antwerp and Rotterdam).

Lemon — Turkey — Sea freight

Port of departure	Port of arrival	Shipping time
Mersin, Iskenderun	Sheerness, Rotterdam, Antwerp	nearly 16 days



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