2 Cereal supplies in the Mediterranean countries: situations and outlook

Cereals constitute the basic diet in most Mediterranean countries. Direct human consumption currently amounts to approximately 250 kg per capita per annum in countries where consumption is high and incomes are low, since cereals constitute the least expensive calories in the diet; in high-income countries cereals are replaced by other products such as fruit and vegetables, meat, etc., which are generally more expensive; per capita cereals consumption is thus lower: 120 kg to 150 kg per capita per annum. Cereals contribute 35% to 50% of calorie intake in Mediterranean diets. These general figures for the Mediterranean region as a whole differ from one country to another depending on cultural and dietary tradition, living environment, lifestyle, etc.

As regards supply, cereals constitute the main agricultural commodities throughout the Mediterranean accounting for over 50% of total acreage. Acreage under cereals in the region is decreasing slightly with the exception of several countries in the South. In the period from 1996 to 2000, the largest areas under cereals were recorded in Turkey (14 million ha), France (9 million ha), Spain 6.7 million ha) and Morocco (5 million ha).

Wheat, maize and barley are the main cereals grown in the Mediterranean region. France is the leading producer in the region in the case of all three of these commodities, producing 69.6 million tonnes (MT) of cereals in 2004, followed by Turkey (34 MT), Spain (24.6 MT), Italy (22.4 MT) and Egypt (20 MT).

Cereal growing is an important component of both the agricultural and the food economies of Mediterranean countries. In the northern countries, output is steadily increasing as the result of yield improvement achieved through advancement in genetics and the enhancement of technologies and production inputs in favourable climatic conditions; some progress is also observed in production in the southern countries, but production methods are still inefficient and, in particular, yields are still low.

As regards supplies, the Mediterranean region is a net cereals importer, absorbing 27% of world cereal imports for only 8.4% of the world population. Over the last 20 years, the Mediterranean region has accounted for a growing share of the world market (27% of world imports in the 1996-2000 period compared to 22% in 1981-1985). The situation is similar in the export field but with a slightly lower share (13% of world exports in the 1981-1985 period and 15% in 1996-2000). The Mediterranean's net deficit is growing, amounting to approximately 30 million tonnes of cereals (compared to 22 million tonnes in the period from 1981 to 1985). It should be noted, however, that within the region France is the only net cereals exporter, the other countries registering a deficit varying in volume; the biggest

importers in the 1996-2000 period were Egypt (9.2 MT), Italy (8.3 MT), Spain (6.5 MT), Saudi Arabia (6.5 MT), Algeria (5.8 MT) and Turkey (3.1 MT).

This introductory presentation will be confined to a brief analysis of recent developments and the outlook with regard to the consumption and production in Mediterranean countries and their international trade; it will then be followed by case studies on four countries: Spain, Turkey, Morocco and Algeria.

2.1 - Cereals consumption and demand

Cereals consumption depends on consumer behaviour, which is often to be explained by factors concerning living standards and lifestyle.

The cereal needs of medium-income consumers are generally covered, cereals being considered table consumer goods characterised by low consumption elasticity compared to income, which means that cereals consumption only increases slightly when incomes rise.

The situation is different in the case of low-income consumers, since their cereal needs are still far from being met. Cereals consumption elasticity compared to income can be fairly high, resulting in an appreciable increase in the consumption of cereals when incomes rise.

The case of high-income consumers is different again. High incomes allow consumers to diversify their choices and this results in negative elasticity, which is reflected in a drop in cereal consumption following a rise in income, since cereals are replaced by other foodstuffs which consumers prefer.

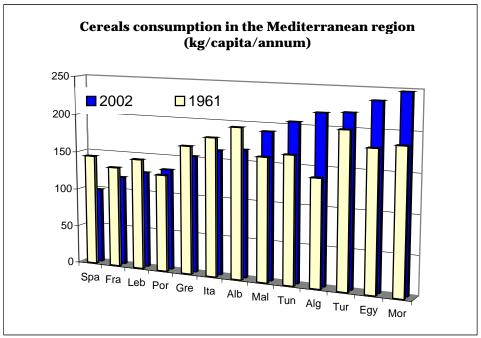


Figure 2.1

It is observed that cereal consumption levels differ rather widely from one Mediterranean country to another. The countries can be divided into three groups: in the first group (Morocco, Algeria, Tunisia, Egypt, Turkey), average annual per capita consumption is between 200 kg and 250 kg; in the second group (Greece, Portugal, Italy, Albania, Malta), consumption is between 130 kg and 160 kg; and in the third group (Spain and France), consumption is close to or below 100 kg. The evolution of cereals consumption over the last 40 years confirms on the whole the consumption elasticities compared to income presented above: per capita consumption has been dropping in high-income countries (Spain, Italy, France, Greece), whereas it has been rising in low-income countries (Egypt, Morocco, Algeria, Tunisia, Turkey). This general trend must be qualified according to country and population group, account being taken of traditions and cultural habits. In Italy, for example, cereals consumption is higher compared to consumption in France or Spain; and in France there has been a slight increase in cereals consumption over the past decade after a long downward trend, a factor to be explained by an evolution in consumption patterns towards a certain return to tradition, particularly with regard to the consumption of bread.

And there is a further differentiation that must be underlined with regard to cereals consumption: the use of cereals in animal feed. For the animal husbandry systems established in several countries include a large proportion of cereals in that feed. In

some countries – Malta, Greece, Italy, Portugal, France and Spain – the proportion of cereals used in animal feed is over 50%. Conversely, in southern and eastern Mediterranean countries cereals are used mainly for human consumption, although the share devoted to feedingstuffs is growing rapidly in several countries such as Algeria, Egypt, Tunisia and Lebanon.

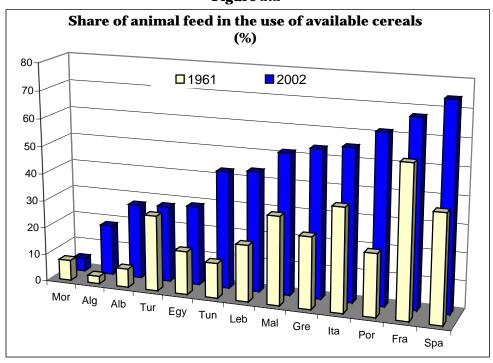


Figure 2.2

2.2 - Cereals production in the Mediterranean region

Greece Italy Malta Albania France 5000 ลดดดด 1961 1971 1981 1991 2001 Portugal Turkey Λ 1971 1981 1991 2001 n Spain 1971 1981 1991 2001 Lebanon Morocco Egypt Tunisia Algeria 1961 1971 1981 1991 2001

Map 2.1 - Cereals production in the Mediterranean (1000T)

Source: Mediterranean Observatory, CIHEAM. www.ciheam.org

The Mediterranean countries produce approximately 200 million tonnes (MT) of cereals (2001-2004 average, i.e. 9% of world output), mainly in France (64 MT), Turkey (31 MT), Spain (21 MT), Italy (20.5 MT) and Egypt (19.4 MT). These five countries together account for over 75% of cereals production in the Mediterranean region. Growth in cereals production has been quite considerable over a long period (1963-2003): 1.8% to 3% per annum in several countries (Egypt [2.95%], France [2.33%], Spain [2.29%], Turkey [1.88%] and Morocco [1.86%]). It must be pointed out, however, that growth rates differ from one country to another due to climatic conditions and varying degrees of expertise in production techniques. Growth in production has been fairly regular in France, Italy, Greece, Turkey, Egypt and, to a lesser extent, Spain, but has fluctuated considerably on the other hand in Morocco, Tunisia and Algeria in connection with climate variations.

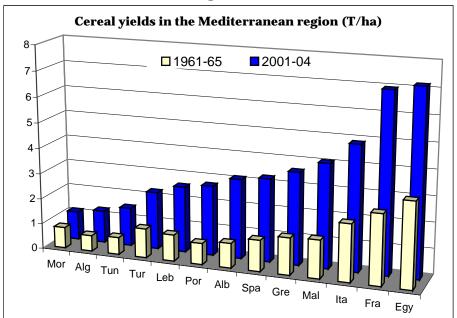


Figure 2.3

Growth in cereals production is to be explained mainly by improvement in yields, for acreage has generally decreased slightly in most countries, with the exception of Egypt (+0.98%), Morocco (+1%) and Turkey (+0.17%). However, yield improvement, which is the result of considerable technological advancement in genetics, crop-growing techniques and the policies pursued, varies from one country and crop to another. France registers the highest yields for wheat, for example, with 7 T/ha (a yield which has increased by 240% in 40 years), followed by Egypt (6.4 T/ha). The highest maize yields are registered in Greece (9.6 T/ha and Spain (9.5 T/ha), followed by Italy (9.1 T/ha) and France (8.4 T/ha). Yield improvement has been more marked in the case of maize than of wheat in most Mediterranean countries. Greece has multiplied its yields by 6 in 40 years and Spain by 4, whereas Italy and France have almost tripled their yields. Although yield progression has been registered in the other countries it has been less marked, a fact which is related to the more limited potential in these countries and probably less efficient management of the conditions for implementing technological advancement.

Wheat is the main cereal produced in the Mediterranean region with a total output of 103 MT. The average growth rate in output has been 1.4% per annum for the region as a whole.

Maize is the second Mediterranean cereal; output has grown considerably (by 3% to 4% per annum) in connection with the development in animal products. Maize production currently amounts to some 47 MT (compared to 17 MT in the 1961-1965 period); it is grown mainly in France, Italy, Spain, Egypt and Greece.

Growth in barley output has been low or negative in most countries with the exception of Spain, Italy and Turkey, a total output of 35 MT currently being produced in the Mediterranean region as a whole.

2.3 - Trade in cereals in the Mediterranean countries

The major trends in the Mediterranean cereals trade can only be analysed in relation to the world context, i.e. to the positions of the dominant countries and operators on the import and export markets. Taken as a whole, the Mediterranean countries' foreign trade in agricultural commodities and foodstuffs shows a considerable deficit; the import-export ratio of the region is 82%; in terms of the average for 2001-2003, France, Spain and Turkey were the only countries showing a surplus, the others often registering an import-export ratio of less than 50%.

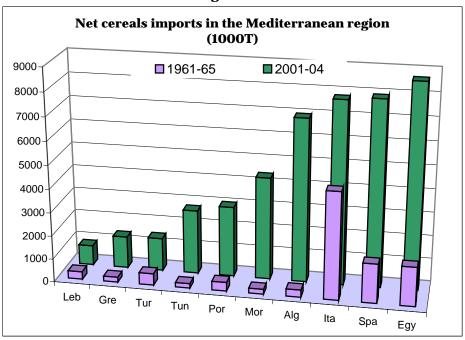


Figure 2.4

The Mediterranean countries, with the exception of France, have thus been net cereal importers for many years; growth in output has been unable to cover the growth in demand in most countries, which have thus been resorting more and more to imports. The overall deficit of the Mediterranean region amounts to approximately 30 MT (22 MT in the 1981-1985 period). The biggest importers in 2001-2004 were Spain (9.8 MT), Italy (9.4 MT), Egypt (9.3 MT), Algeria (6.9 MT) and Morocco (4.5 MT); of these main importers only Italy showed a steady flow of, or slight growth in, imports, whereas the imports of the other countries grew considerably (by 5% to 7% per year).

Wheat accounts for the largest volume of cereal imports in Italy (75%), Algeria (75%) and Morocco (71%). However, the growth in maize imports has been accelerating since the 1980s in connection with the development of animal husbandry, particularly in Spain, Greece, Turkey and Egypt.

Although the significance of trade in agricultural commodities and foodstuffs compared to trade in all commodities is tending to decrease in all countries in connection with industrial development and the rise in oil prices, the volume of agro-food imports is still considerable in several countries such as Algeria (23%), Egypt (21%) and Morocco (14%). Cereal imports still account for a large share of agricultural imports: 40% in Tunisia, Egypt and Morocco, and 38% in Algeria.

The European Union and the United States are the main cereals suppliers of Mediterranean countries. These two suppliers exported "cereals and edible grain preparations" amounting to a value of \$7 billion to Mediterranean countries on average over the period from 2000 to 2003, accounting for 23% of their cereal exports to the world market. The European Union is by far the leading cereals supplier on most Mediterranean markets, although the United States is in the lead on the Egyptian and Turkish markets.

The phenomenon of massive cereals imports by low-income countries raises the crucial question of how to achieve greater food security. For a country which cannot achieve self-sufficiency is obviously obliged to import, and this requires purchasing power. Failure to increase agricultural production or lack of funding for food imports is liable to result in serious problems for the countries concerned but also for Europe and the other partners. If these countries are to take up the challenge it is absolutely imperative that appropriate national policies be implemented but also that efforts be made to seek international and Euro-Mediterranean cooperation with a view to improving cereals supplies in low-income countries with high deficits.

7 636.5

494.1

Origin US Australia Canada EU Total Destination World 19 237.4 11 596.5 1116.7 3 973.5 35 924.2 Greece 277.1 5.8 0.0 20.4 303.2 38.6 Tunisia 108.2 56.2 0.0 203.0 Turkey 64.3 108.0 10.2 6.7 189.2 0.3 Portugal 514.0 10.7 1.5 526.4 France 1658.9 35.9 0.43.1 1698.2 Morocco 227.8 77.9 0.0 103.0 408.7 Algeria 337.4 161.6 0.0 179.1 678.1 Egypt 137.6 762.7 1.6 15.0 917.0 Spain 1 108.0 67.7 0.233.7 1 209.6 Italy 1 274.2 137.1 1.1 92.0 1504.4

1 423.5

11.4

Table 2.1 - Exports of cereals and edible grain preparations (in \$ million) 2000-2003 average

Source: our calculations based on OECD data.

5 707.4

2.4 - Outlook

Total

The cereal prospects of Mediterranean countries depend on many factors which condition the evolution of supply and demand in each of the countries in the region. On the demand side, the main factors are related to population development, urbanisation and growth in incomes. On the supply side, the essential determinants are the integration of technological progress and the dissemination of that progress – factors which would lead to growth in yields. Depending on the degree of their impact, the policies that are implemented to regulate supply and demand will help to improve market equilibrium.

To conclude this brief general presentation we shall endeavour to outline the scenarios of the development of supply and demand in each individual country on the basis of the predominant trends observed in the past few decades with a view to estimating potential cereals deficits or surpluses. These estimates will give an initial rough idea, which will then have to be elaborated on through more specific analyses per cereal product and per country according to the information available and the hypotheses of future developments regarding population trends, urbanisation, growth in incomes, the evolution of consumption patterns, non-food use of cereals and supply trends per product.

A table is set out below summarising the prospects regarding cereals supply and demand by 2015; it has been drawn up on the basis of projections of trends for each country:

- Population trends: United Nations projections (source: World Population Prospects, United Nations 2002).
- Production: projections established on the basis of trends between 1961 and 2004.
- Human consumption: projection of the trends observed between 1992 and 2002.
- Animal consumption: projection of the trends observed between 1992 and 2002.
- Other uses of cereals (seeds, losses, non-food uses, etc.): estimation based on the developments observed between 1992 and 2002.
- Total cereals demand has been calculated by adding together human and animal consumption and other uses.
- The deficit or surplus is obtained by the difference between production and total demand in each country.

Deficits would tend to increase in most countries in the region with the exception of Italy and Turkey, despite growth in production; these deficits are often generated by a sharp increase in cereals demand for animal feed. It is thus calculated that by 2015 animal feed would account for over 50% of cereals demand in Spain, Portugal, France, Italy, Greece and Malta and would account for between 30% and 50% in Turkey, Tunisia, Egypt, Lebanon and Albania. Cereals demand for human consumption would remain predominant in Morocco (84%), Algeria (71%) and Egypt (53%).

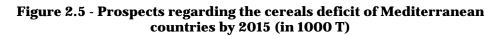
Table 2.2 - Prospects regarding cereals supply and demand in the Mediterranean region by 2015

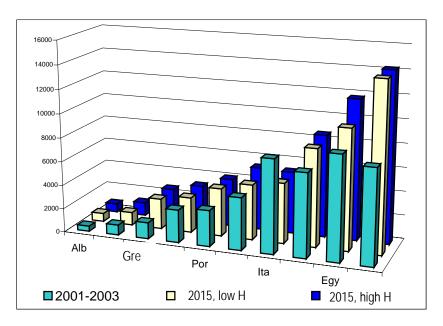
	Population		Per capita cereals consump- tion	Human consump cour	tion per	Animal cereals consump- tion per country	dema	cereals nd per ntry
	in thou	ısands	kg/caput/ annum	100	0 T	1000 T	100	0 T
Hypothesis(1)	В	Н	2015	В	Н	2015	В	Н
Albania	3 291	3 543	108	356	383	382	1 015	1 042
Algeria	36 467	39 817	223	7 669	8 069	2 013	10 845	11 245
Egypt	86 200	93 693	226	19 479	21 172	13 486	36 591	38 284
Spain	40 329	41 994	94	3 810	3 968	32 666	40 133	40 290
France	60 899	64 037	130	7 893	8 300	32 937	48 189	48 596
Greece	10 782	11 106	149	1 637	1 687	3 715	6 613	6 662
Italy	55 100	55 904	175	9 644	9 785	16 829	28 227	28 368
Lebanon	4 015	4 307	124	499	536	659	1 214	1 250
Malta	406	416	232	94	97	157	266	268
Morocco	35 016	37 903	273	9 543	10 329	400	11 335	12 122
Portugal	9 933	10 124	144	1 426	1 454	4 365	6 123	6 151
Tunisia	10 594	11 638	195	2 063	2 266	2 454	4 789	4 992
Turkey	78 463	85 837	198	15 540	17 000	11 405	33 771	35 232

Table 2.2 (contd.)

able 2.2 (colit	<u>,</u>					
	Production	Total cereals demand per country		Cereals o surplus po	Cereals deficit or surplus per country	
			2015			2001-04
	1000 T	100	00 T	100	0 T	1000 T
Hypothesis (1)		В	Н	В	H	
Albania	320	1 015	1 042	-695	-722	-438
Algeria	2 700	10 845	11 245	-8 145	-8 545	-6 947
Egypt	26 569	36 591	38 284	-10 022	-11 715	-8 668
Spain	26 067	40 133	40 290	-14 066	-14 223	-7 894
France	81 234	48 189	48 596	33 045	32 638	27 433
Greece	4 064	6 613	6 662	-2 549	-2 598	-1 361
Italy	23 178	28 227	28 368	-5 049	-5 190	-7 778
Lebanon	132	1 214	1 250	-1 082	-1 118	-849
Malta	316	266	268	50	47	151
Morocco	6 715	11 335	11 989	-4 620	-5 274	-4 366
Portugal	2 108	6 123	6 151	-4 015	-4 043	-3 008
Tunisia	1 837	4 789	4 992	-2 952	-3 155	-2 742
Turkey	34 735	33 771	35 232	964	-496	-1 406

B: low hypothesis of population growth calculated by the United Nations H: high hypothesis of population growth calculated by the United Nations (World Population Prospects, United Nations 2002)





Appended tables

Table 2.3 – Human annual per capita cereals consumption

	1961	1982	1992	2002		
	kg/caput/annum					
Albania	195	221	197	165		
Algeria	139	191	224	217		
Egypt	180	220	242	235		
Spain	145	104	100	98		
France	132	107	105	117		
Greece	167	158	150	152		
Italy	180	159	155	162		
Lebanon	145	137	133	126		
Malta	160	148	145	190		
Morocco	185	240	233	247		
Portugal	127	116	126	132		
Tunisia	165	192	219	204		
Turkey	200	223	232	219		

Table 2.4 - Total human cereals consumption

	1961	1982	1992	2002			
	1000 T						
Albania	411	617	646	517			
Algeria	1 895	3 820	5 872	6 796			
Egypt	5 399	10 139	14 062	16 584			
Spain	5 454	3 948	3 938	4 025			
France	8 087	5 844	6 021	7 019			
Greece	1748	1 552	1 538	1 972			
Italy	10 501	8 999	8 830	9 366			
Lebanon	301	365	379	451			
Malta	57	49	53	75			
Morocco	2 855	4 895	5 951	7 438			
Portugal	1 360	1 150	1 245	1 327			
Tunisia	875	1 309	1 868	1 986			
Turkey	10 619	10 802	13 903	15 404			

Table 2.5 - Total animal cereals consumption

	1961	1982	1992	2002			
	1000 T						
Albania	30	194	182	268			
Algeria	54	959	1 250	1 754			
Egypt	1 013	3 102	4 107	7 924			
Spain	3 499	14 236	11 422	20 323			
France	9 810	18 601	15 213	25 161			
Greece	616	2 619	2 360	3 070			
Italy	6 325	9 755	11 110	13 980			
Lebanon	78	148	218	427			
Malta	27	49	96	102			
Morocco	231	679	398	444			
Portugal	399	3 066	1 655	2 743			
Tunisia	128	638	784	1 715			
Turkey	4 051	7 534	6 310	8 745			

Table 2.6 - Total cereals demand

	1961	1982	1992	2002	
		To	tal		
	1000 T				
Albania	441	1 022	970	978	
Algeria	1 949	5 356	7 858	9 493	
Egypt	6 412	14 821	20 353	27 348	
Spain	8 953	20 532	17 879	27 349	
France	17 897	27 306	27 627	37 283	
Greece	2 364	4 967	4 666	5 696	
Italy	16 826	20 408	21 845	27 251	
Lebanon	379	565	702	974	
Malta	84	113	171	198	
Morocco	3 086	6 535	7 394	9 222	
Portugal	1 759	4 625	3 268	4 463	
Tunisia	1 003	2 229	2 976	4 003	
Turkey	14 670	25 338	27 615	31 324	

Table 2.7 - Cereals output in the Mediterranean region

Cereals (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Malta	5.1	10.1	11.8	2.10
Lebanon	91.5	29.5	145.3	1.16
Albania	317.3	995.2	513.9	1.21
Portugal	1 609.1	1 275.0	1 326.4	-0.48
Tunisia	926.6	1 329.9	1 465.1	1.15
Algeria	1 770.9	1 805.7	3 189.8	1.48
Greece	2 521.8	5 112.3	4 649.7	1.54
Morocco	3 159.1	3 939.8	6 594.1	1.86
Egypt	6 076.2	8 495.3	19 465.3	2.95
Italy	14 046.0	18 566.4	20 503.1	0.95
Spain	8 674.7	16 097.4	21 443.9	2.29
Turkey	14 831.1	25 876.7	31 289.5	1.88
France	25 331.2	50 967.2	63 614.5	2.33
Wheat (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Malta	2.8	6.1	9.6	3.12
Lebanon	63.6	21.1	124.6	1.69
Portugal	550.2	388.1	256.8	-1.89
Albania	110.0	559.7	289.4	2.45
Tunisia	679.0	917.7	1 206.1	1.45
Greece	1 765.4	2 430.6	1 923.8	0.22
Algeria	1 254.0	1 069.9	2 276.5	1.50
Morocco	1 336.0	1 878.6	4 340.4	2.99
Spain	4 364.6	4 693.5	6 313.9	0.93
Egypt	1 458.8	1 927.7	6 725.5	3.89
Italy	8 857.3	9 006.8	7 070.6	-0.56
Turkey	8 584.4	17 059.2	19 626.8	2.09
France	12 494.8	27 125.2	35 148.8	2.62
Maize (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Algeria	4.5	2.6	1.0	-3.73
Lebanon	11.9	0.8	3.0	-3.37
Morocco	352.0	236.0	132.4	-2.41
Albania	160.8	322.5	198.9	0.53
Portugal	560.3	483.2	816.8	0.95
Greece	241.4	1 777.0	2 215.1	5.70
Turkey	950.4	1 488.0	2 525.0	2.47
Spain	1 100.6	2 446.6	4 588.0	3.63
Egypt	1 912.6	3 509.6	5 813.0	2.82
Italy	3 633.1	6 743.4	10 419.0	2.67
France	2 760.0	10 594.6	15 145.5	4.35

Table 2.7 (contd.)

Barley (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Malta	2.0	3.9	2.2	0.22
Albania	7.9	28.1	3.7	-1.87
Portugal	60.6	60.6	15.2	-3.39
Lebanon	12.5	6.4	16.3	0.66
Egypt	137.1	129.1	109.7	-0.56
Greece	248.1	725.2	238.7	-0.10
Tunisia	199.0	382.0	252.1	0.59
Algeria	475.5	657.6	853.2	1.47
Italy	276.1	1 298.4	1 130.1	3.59
Morocco	1 315.7	1 709.4	2 051.2	1.12
Turkey	3 447.2	6 145.0	8 225.0	2.20
Spain	1 958.9	7 635.4	8 465.9	3.73
France	6 593.7	10 372.3	10 404.6	1.15

 $^{^{\}left(1\right)}$ Average annual growth rate presumed to be constant between the 1961-1965 and 2001-2004 averages.

Table 2.8 - Cereals imports in the Mediterranean region

Cereals (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Malta	84.7	119.6	152.9	1.49
Albania	149.3	66.7	439.4	2.74
Lebanon	335.3	542.5	863.5	2.39
France	1 252.8	1 816.3	1 528.4	0.50
Greece	217.1	463.5	1864.2	5.52
Turkey	566.1	751.3	2 658.1	3.94
Tunisia	267.6	982.4	2 907.7	6.15
Portugal	378.3	3 188.1	3 189.3	5.47
Morocco	369.2	2 332.0	4 536.6	6.47
Algeria	451.2	3 992.4	6946.8	7.07
Egypt	2 012.9	7 926.5	9 260.6	3.89
Italy	5 126.3	6 775.5	9 467.3	1.55
Spain	1 765.5	5 646.8	9 864.3	4.40
Wheat (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Wheat (1000 T) Malta	1961-65 54.8			Tx 63-2003 ⁽¹⁾ -0.62
Wheat (1000 T)		1981-85	2001-04	
Wheat (1000 T) Malta	54.8	1981-85 44.6	2001-04 42.8	-0.62
Wheat (1000 T) Malta Albania	54.8 125.6	1981-85 44.6 48.0	2001-04 42.8 240.8	-0.62 1.64
Wheat (1000 T) Malta Albania Lebanon	54.8 125.6 184.5	1981-85 44.6 48.0 331.8	2001-04 42.8 240.8 395.6	-0.62 1.64 1.93
Wheat (1000 T) Malta Albania Lebanon France	54.8 125.6 184.5 597.4	1981-85 44.6 48.0 331.8 596.7	2001-04 42.8 240.8 395.6 411.6	-0.62 1.64 1.93 -0.93
Wheat (1000 T) Malta Albania Lebanon France Greece	54.8 125.6 184.5 597.4 21.9	44.6 48.0 331.8 596.7 91.5 485.7 720.9	2001-04 42.8 240.8 395.6 411.6 1 050.0	-0.62 1.64 1.93 -0.93 10.16
Wheat (1000 T) Malta Albania Lebanon France Greece Turkey	54.8 125.6 184.5 597.4 21.9 552.4	44.6 48.0 331.8 596.7 91.5 485.7	42.8 240.8 395.6 411.6 1 050.0 1 094.4	-0.62 1.64 1.93 -0.93 10.16 1.72
Wheat (1000 T) Malta Albania Lebanon France Greece Turkey Portugal	54.8 125.6 184.5 597.4 21.9 552.4 261.9	44.6 48.0 331.8 596.7 91.5 485.7 720.9	42.8 240.8 395.6 411.6 1 050.0 1 094.4 1 531.4	-0.62 1.64 1.93 -0.93 10.16 1.72 4.51
Wheat (1000 T) Malta Albania Lebanon France Greece Turkey Portugal Tunisia	54.8 125.6 184.5 597.4 21.9 552.4 261.9 210.2	44.6 48.0 331.8 596.7 91.5 485.7 720.9 665.1	42.8 240.8 395.6 411.6 1 050.0 1 094.4 1 531.4 1 551.8	-0.62 1.64 1.93 -0.93 10.16 1.72 4.51 5.12
Wheat (1000 T) Malta Albania Lebanon France Greece Turkey Portugal Tunisia Morocco	54.8 125.6 184.5 597.4 21.9 552.4 261.9 210.2 250.6	44.6 48.0 331.8 596.7 91.5 485.7 720.9 665.1 1 999.4	42.8 240.8 395.6 411.6 1 050.0 1 094.4 1 531.4 1 551.8 2 944.5	-0.62 1.64 1.93 -0.93 10.16 1.72 4.51 5.12 6.35
Wheat (1000 T) Malta Albania Lebanon France Greece Turkey Portugal Tunisia Morocco Egypt	54.8 125.6 184.5 597.4 21.9 552.4 261.9 210.2 250.6 906.8	44.6 48.0 331.8 596.7 91.5 485.7 720.9 665.1 1 999.4 4 225.5	42.8 240.8 395.6 411.6 1 050.0 1 094.4 1 531.4 1 551.8 2 944.5 4681.6	-0.62 1.64 1.93 -0.93 10.16 1.72 4.51 5.12 6.35 4.19

Table 2.8 (contd.)

rabie 2.8 (conta.)				
Maize (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Albania	23.8	12.0	36.7	1.09
Malta	14.5	47.8	56.5	3.45
France	456.1	625.9	248.3	-1.51
Lebanon	27.2	134.2	311.1	6.28
Greece	112.7	324.3	500.7	3.80
Tunisia	6.4	262.6	767.0	12.70
Italy	3 352.3	1 682.8	826.5	-3.44
Morocco	2.2	158.5	1 060.1	16.68
Turkey	8.9	51.6	1 177.8	12.98
Portugal	84.8	2 173.5	1 188.2	6.82
Algeria	2.2	427.5	1 642.6	18.02
Spain	845.5	4 257.1	3 375.4	3.52
Egypt	221.4	1 519.6	4 523.5	7.83
Barley (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
Albania	0.0	2.1	1.5	
Albania Egypt				4.14
Egypt France	0.0	2.1	1.5	
Egypt	0.0 1.0	2.1 6.3	1.5 5.1	4.14
Egypt France	0.0 1.0 26.8	2.1 6.3 195.9	1.5 5.1 32.8	4.14 0.50
Egypt France Malta	0.0 1.0 26.8 6.3	2.1 6.3 195.9 23.3	1.5 5.1 32.8 41.7	4.14 0.50 4.82
Egypt France Malta Turkey	0.0 1.0 26.8 6.3 2.2	2.1 6.3 195.9 23.3 168.5	1.5 5.1 32.8 41.7 48.4	4.14 0.50 4.82 8.04
Egypt France Malta Turkey Lebanon Greece	0.0 1.0 26.8 6.3 2.2 55.3	2.1 6.3 195.9 23.3 168.5 20.8	1.5 5.1 32.8 41.7 48.4 79.2	4.14 0.50 4.82 8.04 0.90
Egypt France Malta Turkey Lebanon	0.0 1.0 26.8 6.3 2.2 55.3 38.2	2.1 6.3 195.9 23.3 168.5 20.8 37.9	1.5 5.1 32.8 41.7 48.4 79.2 256.5	4.14 0.50 4.82 8.04 0.90 4.88
Egypt France Malta Turkey Lebanon Greece Portugal	0.0 1.0 26.8 6.3 2.2 55.3 38.2 5.0	2.1 6.3 195.9 23.3 168.5 20.8 37.9 41.4	1.5 5.1 32.8 41.7 48.4 79.2 256.5 311.3	4.14 0.50 4.82 8.04 0.90 4.88 10.87
Egypt France Malta Turkey Lebanon Greece Portugal Algeria	0.0 1.0 26.8 6.3 2.2 55.3 38.2 5.0 39.5	2.1 6.3 195.9 23.3 168.5 20.8 37.9 41.4 418.2	1.5 5.1 32.8 41.7 48.4 79.2 256.5 311.3 321.0	4.14 0.50 4.82 8.04 0.90 4.88 10.87 5.38
Egypt France Malta Turkey Lebanon Greece Portugal Algeria Morocco	0.0 1.0 26.8 6.3 2.2 55.3 38.2 5.0 39.5 56.8	2.1 6.3 195.9 23.3 168.5 20.8 37.9 41.4 418.2 97.0	1.5 5.1 32.8 41.7 48.4 79.2 256.5 311.3 321.0 525.7	4.14 0.50 4.82 8.04 0.90 4.88 10.87 5.38 5.72

 $^{^{\}left(1\right)}$ Average annual growth rate presumed to be constant between the 1961-1965 and 2001-2004 averages.

Table 2.9 – Net cereals imports in the Mediterranean region

Cereals (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
France	-4 104.2	-21 810.9	-27 433.0	4.86
Malta	84.6	119.5	151.5	1.47
Albania	149.3	59.9	438.1	2.73
Lebanon	325.4	538.1	848.8	2.43
Greece	215.5	-589.7	1 361.3	4.72
Turkey	495.5	-298.6	1 405.7	2.64
Tunisia	191.3	980.1	2 742.2	6.88
Portugal	377.4	3 185.5	3 007.6	5.33
Morocco	210.6	2 321.0	4 366.4	7.87
Algeria	310.1	3 992.4	6 946.7	8.08
Italy	4 568.4	4 389.4	7 778.4	1.34
Spain	1 678.9	4 804.5	7 894.1	3.95
Egypt	1 669.3	7 880.6	8 668.3	4.20
Wheat (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
France	-1 871.7	-1 2842.2	-14 810.6	5.31
Malta	54.8	44.6	42.0	-0.66
Albania	125.6	48.0	240.8	1.64
Lebanon	183.7	331.8	395.6	1.94
Turkey	552.1	129.2	708.6	0.63
Greece	21.9	-406.2	713.1	9.10
Portugal	261.9	720.9	1 408.6	4.30
Tunisia	150.2	663.9	1 551.8	6.01
Morocco	231.9	1 999.4	2 938.2	6.55
Spain	460.1	-29.0	3 714.3	5.36
Egypt	906.0	4 224.0	4 680.6	4.19
Algeria	342.8	2 082.1	4 872.3	6.86
Italy	915.4	3 397.1	7 214.0	5.30
Maize (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
France	-64.1	-3303.8	-7253.2	12.55
Albania	23.8	5.2	36.7	1.09
Malta	14.5	47.7	55.7	3.42
Lebanon	26.9	130.2	309.9	6.30
Greece	112.7	262.7	462.3	3.59
Italy	3 150.4	1 482.6	681.7	-3.75
Tunisia	6.4	262.6	700.9	12.44
Morocco	-49.5	158.5	1 060.1	
Turkey	8.9	49.6	1 168.4	12.96
Portugal	84.7	2 173.2	1 180.4	6.81
Algeria	1.5	427.5	1 642.6	19.18
Spain	845.4	4 255.1	3 243.6	3.42
Egypt	220.2	1 519.6	4 522.5	7.85

Table 2.9 (contd.)

Barley (1000 T)	1961-65	1981-85	2001-04	Tx 63-2003 (1)
France	-1 734.6	-3 662.2	-4 583.9	2.46
Turkey	-31.2	-186.5	-335.0	6.11
Albania	0.0	2.1	1.5	
Egypt	-0.2	6.3	5.0	
Malta	6.3	23.3	41.7	4.82
Lebanon	47.9	20.8	79.2	1.27
Greece	38.2	28.5	244.2	4.75
Portugal	5.0	41.4	288.9	10.67
Algeria	-54.4	418.2	321.0	
Morocco	11.0	97.0	525.7	10.16
Tunisia	37.8	46.7	557.2	6.96
Spain	429.1	205.2	826.5	1.65
Italy	640.4	1 114.9	869.6	0.77

 $^{^{\}rm (1)}$ Average annual growth rate presumed to be constant between the 1961-1965 and 2001-2004 averages.



Agri.Med

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Annual report 2006

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