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**D6 “Characterization of the Israeli Agricultural Sector with Special Emphasis on Fruits, Vegetables, and Processed Foods”**

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## AN OVERVIEW OF AGRICULTURAL AND AGRO-INDUSTRIAL SECTORS IN EGYPT, ISRAEL, MOROCCO, TUNISIA, AND TURKEY

This document provides a broad description of the agricultural and agri-industrial sectors of the five Mediterranean countries targeted for the EU-MED AGPOL project entitled *Impacts of Agricultural Trade Liberalization Between the EU and Mediterranean Countries*. It is based, in part, on the five country reports for Egypt, Israel, Morocco, Tunisia, and Turkey plus other data sources.<sup>1</sup> Those reports plus this report constitute the deliverables for Work Package 1 of this project.

This report is organized as follows. First, there is some general introductory information comparing the five countries with broad economic and social indicators plus some general land and machinery information. Then, there is a summary of each of the countries. The summaries are divided into two major sections:

- Major determinants of agricultural and agro-industrial production and performance
- Agricultural and agro-industrial policies and international trade policies

The last section provides relevant cross-country comparisons as appropriate, particularly with reference to fruits, vegetables, and olive oil – the commodities. Obviously, this report does not replicate the contents of the five country reports. In fact, it sometimes deviates from the content and conclusions of those reports. Readers are referred to those reports for details on each country. Rather, this report provides a summary of the major elements of each of the above dimensions for each country, additional observations and insights from other sources, and certain cross-country comparisons where appropriate. Before moving into the country summaries, we will provide some overall economic and social indicators for the five countries. Table 1 provides indicators for 2000 and 2003 from the World Bank. Additional general economic indicators for each country are contained in Annex A. The following observations can be drawn from the data in Table 1:

- Tunisia and Turkey have lower dependency ratios than Egypt, Israel, or Morocco, meaning that there are fewer non working citizens depending on those working for support.
- Tunisia and Turkey have about the same agricultural share of total income (12 percent) while Egypt and Morocco are a bit higher at 16 percent. That data is not reported for Israel.
- Exports as a percent of national income is highest for Tunisia and Israel followed by Turkey, Morocco, and Egypt.

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<sup>1</sup> The Tunisia report is a bit different from the others in that it focuses mainly on olive and olive oil production and processing. Olive oil is the only crop from Tunisia being considered in this analysis because of its prominence in Tunisia's agricultural exports to the EU.

**Table 1: General Economic and Social Indicators for the Five Countries for 2000 and 2003**

Indicator	Egypt		Israel		Morocco		Tunisia		Turkey	
	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003
Age dependency ratio (dependents to working-age population)	0.65	0.61	0.60	0.59	0.63	0.59	0.55	0.50	0.52	0.52
Agricultural raw materials exports (% of merchandise exports)	5.01	6.96	1.14	1.03	2.02	1.76	0.66	0.85	1.12	0.80
Agricultural raw materials imports (% of merchandise imports)	4.84	4.56	1.02	1.11	3.09	3.34	3.06	3.01	3.70	3.68
Agriculture, value added (% of GDP)	16.70	16.14			13.83	16.82	12.36	12.05	15.36	13.38
Exports of goods and services (% of GDP)	16.27	21.69	40.40	37.31	31.36	32.34	44.16	43.13	24.05	27.65
GDP per capita (constant 2000 US\$)	1554	1622	18358	17298	1161	1278	2036	2214	2956	2977
GDP per capita growth (annual %)	3.13	1.39	4.73	-0.55	-0.69	3.59	3.49	4.35	5.56	4.17
GDP per capita, PPP (constant 2000 international \$)	3534	3731	20615	18925	3470	3783	6252	6765	6247	6398
Inflation, consumer prices (annual %)	2.68	4.51	1.14	0.72	1.89	1.17	2.93	2.72	54.92	25.30
Inflation, GDP deflator (annual %)	6.67	3.77	1.37	0.15	1.52	0.01	3.34	2.24	49.90	21.29
Life expectancy at birth, total (years)	..	69	..	79	..	69	73	73	68	69
Literacy rate, adult female (% of females ages 15 and above)	..	..	93	..	36	..	61	..	79	..
Literacy rate, adult total (% of people ages 15 and above)	..	..	95	..	49	..	71	..	87	..
Population density (people per sq km)	64	68	290	308	64	67	62	64	88	92
Population, total (million)	63.98	67.56	6.29	6.69	28.71	30.11	9.56	9.90	67.42	70.71
Rural population (% of total population)	57	57	8	8	45	43	34	33	34	33
Unemployment, total (% of total labor force)	9	..	9	..	14	..	16	..	7	..

Source: World Development Indicators, World Bank, 2005.

- Israel has significantly higher per capita income (about \$19,000) than the other countries. Tunisia and Turkey follow with PPP income of about \$6,500 followed by Morocco and Egypt at about \$3,700.
- Inflation is relatively low in all countries except Turkey, which has experienced 20-50 percent inflation in recent years.
- Life expectancy is highest in Israel (79) and Tunisia (73) followed by 69 in the other three countries.
- Literacy rates are not reported in Egypt. Among the reporting countries, literacy is lowest in Morocco and highest in Israel.
- Turkey (71 million) and Egypt (68 million) are the highest population countries. Israel (7 million) is the smallest, with Morocco (30 million) and Tunisia (10 million) in between.
- Egypt has the largest percentage of the population in rural areas (57) and Israel the lowest (8). Morocco has 43 percent rural inhabitants while Tunisia and Turkey each have 33 percent.

Poverty is highest in Morocco and Egypt with headcount percentages below the national poverty line estimated at 19 and 17 percent respectively. The GINI coefficients for Morocco, Tunisia, and Turkey are all estimated to be .40, whereas Israel and Egypt are estimated at .36 and .34. Thus Israel and Egypt should have somewhat more equal income distributions than the other three countries.

There is considerable diversity within each of these countries and among the countries in terms of the structure and determinants of agricultural and agro-industrial production. For example, water is an important factor in all countries, but the level of importance varies significantly among countries and among regions in some of the countries. For Israel, water is perhaps the limiting factor in agricultural production and will become more so in the future. About 46 percent of the cropland in Israel is irrigated, and there is increasing pressure to allocate more water to other uses. In Egypt, virtually all agriculture is irrigated, and agriculture consumes about 85 percent of the available water. Turkey is less water constrained than the other four countries (18 percent of cropland irrigated), but water will become more of an issue in years to come. For Morocco and Tunisia, irrigated agriculture is a smaller fraction of the total (14 and 8 percent of total cropland respectively), which leads to higher variability in production because dryland agriculture is more dependent on rainfall. Table 2 contains a measure of renewable water use in each of the five countries. The exploitation index is the ratio of the volume of annual conventional renewable natural fresh water production for all uses and the volume of annual flows of renewable natural water resources. Clearly, Israel and Egypt are the most constrained and Turkey the least constrained.

Some overall agricultural indicators for each country are contained in Annex A. Annex B contains much more detailed information on agricultural production, yields, and trade for each of the countries. The individual country reports, of course, contain much more detailed information on this topic. Table 33 contains some general data on land use and tractors.

**Table 2: Exploitation Index of Renewable Water Resources**

Country	Index
Egypt	91
Israel	95
Morocco	41
Tunisia	57
Turkey	15

Source: Blue Plan, Exploitation Index of Renewable Resources, <http://www.planbleu.org>.

### ***Egypt***

Egypt is the largest of the five countries in terms of population and total land area. It has a per capita income of about \$3,700 PPP. Agricultural exports constitute about 11 percent of total exports, but agricultural imports make up 25 percent of all imports. Agricultural imports are five times agricultural exports. Yet there is potential in Egypt to specialize more in higher value fruits and vegetables, both fresh and processed for export and to produce less lower value commodity products with the scarce water resources.

#### **Major determinants of agricultural and agro-industrial production and performance**

There are four agro-ecological zones in Egypt classified based on soil type and water source. The major categories are old lands (Nile Valley and Delta regions) and New Lands located both east and west of the Delta. All of the old lands and most of the new lands use Nile River water for irrigation. There is some underground water also used for irrigation. There is not much climatic variation within the country, but there are winter and summer growing seasons. The old lands are used to produce wheat, clover, broad beans, maize, rice, and cotton plus a variety of vegetables.

Land holdings in Egypt are quite fragmented. Table 4 provides the breakdown of the percentage of holdings and land area by class size for 2000. Two thirds of the holdings are less than 0.84 hectares and 90 percent are less than 2.10 hectares. In terms of land area, one-third is in holdings less than 1.26 ha. One quarter of the land is in holdings greater than 8.4 ha.

**Table 3: Land Use and Machinery Indicators for 2002**

Indicator	Egypt	Israel	Morocco	Tunisia	Turkey
Agricultural machinery, tractors per hectare of arable land	3.09	7.25	0.58	1.27	3.74
Land area (hectares)	99,545,000	2,171,000	44,630,000	15,536,000	76,963,000
Land area (sq km)	995,450	21,710	446,300	155,360	769,630
Land use, arable land (% of land area)	2.91	15.57	18.81	17.84	33.70
Land use, arable land (hectares per person)	0.04	0.05	0.28	0.28	0.37
Land use, arable land (hectares)	2,900,000	338,000	8,396,000	2,771,000	25,938,000
Land use, area under cereal production (hectares)	2,700,213	92,200	4,947,800	410,250	13,777,800
Land use, % arable land in cereals	93	27	59	15	53
Land use, irrigated land (% of cropland)	100.00	45.75	14.49	7.76	18.28
Land use, irrigated land (hectares)	3,400,000	194,000	1,345,000	381,000	5,215,000

Source: World Development Indicators, World Bank, 2005.





**Table 4: Egyptian Land Holding in 2000**

Class	Holdings %	Area %
< 0.84 ha,	67.15	20.60
0.85 – 1.26 ha.	13.90	12.93
1.27 – 2.10 ha.	9.32	13.69
2.11 – 4.20 ha.	6.31	16.15
4.21 – 8.40 ha.	2.19	11.75
8.41 – 21.00 ha.	0.90	10.34
21.01 + ha.	0.22	14.54

Source: Egypt WP1 report (original data in feddans and converted to hectares).

In terms of crop area, cereals are the most important crops occupying 2.8 million ha. in 2004. Fruits and vegetables together amounted to about 1 million hectares. Egypt produces a wide variety of fruits and vegetables (see Annex B). Oil crops covered almost 0.5 million ha. Sugar cane and beet together amounted to 200,000 ha.

Egypt is a large exporter and importer of agricultural products. The most important exports in value terms are cotton lint, rice, potatoes, molasses, oranges, onions, dehydrated and frozen vegetables and dry beans. Cotton production has been declining, and rice production increasing. However, the Government of Egypt has had to provide export incentives in some years to clear the rice stocks, so rice production is not likely to increase further.

Egypt is an important exporter of fruits and vegetables, but most are produced primarily for the domestic market. As can be seen from Table 5, more than 98 percent of the total market for peppers, grapes, and cantaloupe is domestic, and 88-90 percent of the market for green beans and strawberries is domestic, even though green beans and strawberries are important Egyptian exports.

In terms of imports, Egypt is perennially the largest or second largest importer of wheat in the world. Following wheat are livestock feed ingredients, maize and soybean meal, and beef and veal meat products.

Food processing in Egypt is done both in the public and private sectors. In general, the private enterprise branch has been growing, and the public sector component declining in percentage terms. For canned fruits and vegetables, the private sector represented 95 percent of total value in 2000. The total value of processed foods in Egypt in 2000 was about 20 percent of the total output of the manufacturing sector.

Processed food exports approximately doubled between 1998 and 2003 reaching \$119 million in 2003. The fastest growing sectors have been canned, glass packed, and pickled vegetables, fruit and vegetable juices and concentrates, and dairy products. Dried vegetables and herbs and spices have seen moderate growth, and the remaining sectors have been slower growing.

**Table 5: Market Size for Selected Egyptian Horticultural Products, 2002-03**

Product	Domestic Market	Export Market
Green beans (mt)	210,000	29,000
Green beans %	87.9	12.1
Peppers (mt)	387,000	500
Peppers %	99.9	0.1
Grapes (mt)	1,100,000	14,000
Grapes %	98.7	1.3
Cantaloupe (mt)	230,000	3,500
Cantaloupe %	98.5	1.5
Strawberries (mt)	68,000	8,000
Strawberries %	89.5	10.5

Source: Egypt WP1 report.

### Agricultural, agro-industrial, and trade policies

Egypt has a long history of public sector enterprises and state intervention in the economy. Today it still has greater public ownership and intervention than any of the other countries in this synthesis. Much of wheat and rice milling is state owned. Part of the food processing companies are state owned. Government sets the prices of many agricultural commodities, and for some commodities there are production quotas. In general the economy is highly regulated, and agriculture is more controlled than most other sectors in the economy.

There have been more reforms at the macroeconomic level. The Egyptian Pound was devalued in recent years, and its value now comes closer to a market oriented value.

Egypt is a member of the WTO, and it also has regional and bi-lateral trade agreements. Among these is a partnership agreement with the EU. Under this agreement, Egypt has preferential access to European markets for quite a few fruits and vegetables and processed food products. Egypt is also a part of the Arab FTA, the Agadir agreement with Jordan, Tunisia, and Morocco, and COMESA. Some of these agreements may offer greater opportunity for Egypt in the short run as the market quality requirements are not nearly so stringent in many of these markets as they are in the EU.

In summary, Egypt remains today a highly regulated economy with a significant fraction of public ownership and operation of industrial resources. It has begun the process of liberalization, but has not made as much progress as some other countries. On the trade front, Egypt has made more progress and has seen considerable growth in exports of food processing products. The domestic market is quite large for both fresh and processed products and is expected to continue growing and to dominate the export markets as a share of total output. Nonetheless, Egypt could experience considerable future growth in exports with greater market liberalization.

## ***Israel***

Israel is by far the richest country among the five covered in this report. It is also the country that has the smallest fraction of economic activity in the agricultural sector. The share of agricultural GDP in total GDP is about 1,7 percent. Only about 2.5 percent of the population is engaged in agricultural activities. About 8 percent of the population lives in rural areas. So agriculture is a relatively smaller portion of the total economy in Israel than in the other four countries. The same is true for agricultural exports, which constitute only about 3 percent of total exports. Agricultural imports are approximately double agricultural exports.

### Major determinants of agricultural and agro-industrial production and performance

The biggest single constraint to expanded agricultural production in Israel is water. As of 2002, about 54 percent of arable land in Israel was irrigated. As of 1999, agriculture used 60 percent of available water resources, but that share is now declining. Agriculture pays 25-30 percent of average water production cost. Farmers also have a quota on their maximum water use. In 2001 the quotas were reduced considerably with reductions of 100 percent for cotton and wheat and 30 percent for many fruits and vegetables.

Israel is a small country but has six natural regions, one of which is the Negev Desert in the South, which covers half the total land area. Average annual rainfall is 610 mm., but it varies considerably among the regions. In the north the average is 800 mm., and it is as low as 25 mm. in the desert.

The farm structure is largely cooperative taking the form of kibbutz and moshav. Kibbutz originated with immigrants from the former Soviet Union and is based on Marxist ideology. Thus, it is quite collective. Moshav takes two forms: one in which only some infrastructure and purchasing is shared, and the other which is somewhere between the collaborative moshav and a kibbutz.

Today both the moshav and kibbutz are commonly diversified out of agriculture. They do food processing and other industrial activities.

Most of the agricultural production is distributed through packing houses. These entities are either owned by a cooperative or can be privately owned. They sort, grade, and pack the produce for market. The produce may then be sold to local wholesalers, direct to supermarkets or to exporters. Most of the exports are handled by three large companies, but there are also several small companies in the business.

The EU is the largest market for Israeli agricultural products with 76 percent of the total in 2003. The largest exports in value terms are avocados, chilies and green peppers, fresh vegetables, potatoes, cotton, and tomatoes. Exports of citrus have been declining with rising pressure on water use. In terms of exports of processed fruits and vegetables, processed fruit exports are declining, and processed vegetable exports are holding steady to increasing.

## Agricultural, agro-industrial, and trade policies

As the Israeli economy has evolved over the past two decades, the agricultural sector has undergone major changes. The basic strategy has been to import low value agricultural products and to specialize in production and export of high value products. Obtaining maximum value from water used has been an important criterion in implementing this strategy. Even as the agricultural sector has shrunk relative to the rest of the economy, the government continues to support agriculture in greater proportion than its contribution to GDP. The government subsidizes some agricultural investments, particularly those associated with increasing efficiency of irrigation water use. In addition, the government provides indirect support through exemption from antitrust law, exemption from the value added tax, subsidizing land leases, and various import duties and restrictions.

In international trade, Israel has trade agreements both with the US and the EU. The EU agreement provides for quotas and in-quota tariff reduction for cut flowers, potatoes, tomatoes, peppers, avocados, oranges, lemons, and grape juice. Most of the Israeli exports are destined for the EU.

### **Morocco**

Morocco has income per capita of about \$3,800 in 2003. About 43 percent of the population lives in rural areas, and about one-third of the labor force is in agriculture. The agricultural share of national income ranges from 14 to 17 percent depending on rainfall. Agricultural exports represent about 10 percent of total exports, and agricultural imports represent about 15 percent of the total again depending on rainfall. Agricultural imports are more than double exports.

### Major determinants of agricultural and agro-industrial production and performance

Morocco is a country at the crossroads between Africa and Europe In the Northwest corner of Africa. It has a Mediterranean climate with highly variable rainfall and substantial differences among the different regions of the country. The aridity intensifies as one moves north to south and west to east in the country. The humid zone averages 600 mm/year of rainfall, but the other areas are considerably less.

Morocco has about 9.2 million hectares of cultivable land (8.4 according to the World Bank) of which about 2.5 million is pasture. About 14 percent of the arable land is irrigated, so Morocco is largely dependent on dryland agriculture. The structure of farm size is available from the 1996 agricultural census and is contained in Table 6. Over half the farms are less than 3 hectares, and these farms have about 12 percent of the arable land.

According to the 1996 census, 68 percent of the land was cultivated in cereals. More recent data puts the figure closer to 60 percent, but still a very large proportion. Other large categories (in order of area) include pasture, fruit trees, legumes, vegetables, and forage crops.

**Table 6: Number of Farmers and Amount of Land by Farm Size, 1996**

Farm Size (ha)	Number of Farmers	%	Land Area (1000 ha)	%
Landless	64.8	4.3		0.0
0-1	315.3	21.1	170.4	1.9
1-3	446.7	29.8	904.7	10.4
3-5	237.7	15.9	1011.1	11.6
5-10	247.8	16.6	1894.7	21.7
10-20	125.2	8.4	1880.5	21.5
20-50	48.0	3.2	1526.3	17.5
50-100	7.8	0.5	585.2	6.7
> 100	3.2	0.2	759.4	8.7
Total	1496.3	100	8732.2	100

Source: Morocco WP1 report.

Historic growth in agricultural production can be partitioned into three phases. First, the period beginning in the 1960s and continuing to 1985 was one of relatively slow growth in production with total growth at 1.7 percent and growth per capita at 0.2 percent. The second phase is 1985-91. During that period, total growth was 7.0 percent and growth per capita 6.3 percent. Area cultivated grew 21 percent, and prices paid for major cereal crops increased significantly, as did border protection. The third phase from 1991 to 2002 was one of stagnation. Total growth was 1.6 percent, and growth per capita was -0.4 percent. There were several drought years during this period, so crop production suffered significantly. Animal production actually continued to grow.

From the mid 1980s to the present, Morocco has followed a policy of encouraging cultivation of blé tendre (common wheat). The area in blé tendre more than tripled, so the proportion of blé tendre in total cereals increased considerably. Morocco has had since the mid 1980s very high border protection for blé tendre. In addition, machinery was subsidized, which led to increasing mechanization of crop operations.

One can see the trends in production of other fruits, vegetables, and animal products in Annex B. Orange production has fallen considerably since its peak in 1998, and in recent years is more or less stable. Clementine production, on the other hand, continues a small increase. The production table in Annex B clearly illustrates the importance of rainfall fluctuations on production of almost all crops.

In terms of international trade, Moroccan agricultural and fish exports represented about 91 percent of agricultural imports between 1998 and 2002. But half the exports were fish. If one excludes fish, agricultural exports have been about half of agricultural imports since 1991. The leading agricultural exports are citrus and tomatoes, which together constitute between 34 and 45 percent of the value of exports. The largest agricultural imports are wheat, maize, and sugar.

Food processing contributes about 5 percent of the national income. There are (in 2002) 1,767 firms representing 24 percent of industrial firms in Morocco. They produce about 25 percent of the value of industrial output and employ

63,833 persons representing 20 percent of total industrial employment. Flour milling is by far the largest sub-sector in terms of number of firms constituting half the total. However, fish is by far the largest in terms of value of production and exports. Fruit and vegetable processing is second in terms of exports.

### Agricultural, agro-industrial, and trade policies

Over the past 25 years, agricultural and trade policy in Morocco has evolved considerably moving generally towards a more market oriented economy. Prior to 1980, there was massive state intervention in the Moroccan economy in most sectors. That intervention took the form of both state ownership and state regulation of prices, transactions, transport, etc. Beginning in the late 1970s, Morocco began to liberalize the industrial sector partly through sectoral adjustment loans from the World Bank. Border protection was reduced for most industrial products, and government intervention was phased down. In the 1980s, the government began a program of privatization of public enterprises, and that program continues today. Substantial progress has been made in moving the industrial sector towards a more market orientation.

Sectoral adjustment began for the agricultural sector in the mid-1980s after considerable progress already had been achieved in the industrial sector. Morocco also became an active player in the GATT negotiations in the late 1980s, and, in fact, was one of the developing country leaders. It was not by accident that the GATT agreement was signed in Marrakech.

Pre-independence and in the early years of independence, Moroccan agricultural policy had focused on development of the irrigated perimeters. In the 1980s and 1990s, more attention was paid to dryland agriculture, and several programs were launched to enhance production and productivity in those zones. Despite the large investments in both irrigated and dryland agriculture, the part of public spending on agriculture is rather small in comparison with the size of the sector. Spending on agriculture represents 4.5 percent of the government budget and 1.3 percent of national income, whereas agriculture is 14 – 17 percent of national income. However, in terms of the public investment budget, agriculture constitutes 11 – 15 percent of the total.

Over the years, these public investments have taken many forms:

- Investment in large irrigated perimeters
- Investment in small and medium irrigated areas
- The Agricultural Development Fund – used to subsidize private investments in land improvement, machinery, animal genetics, agricultural buildings, small-scale irrigation, and other agricultural activities
- Agricultural insurance fund – a pilot effort to test crop insurance in Morocco
- Fund for Safeguarding Livestock – this fund is used for barley imports and for other products needed to secure the livestock population in drought years
- Program for agricultural debt reduction

There were many other smaller programs as well.

Earlier agricultural credit was highly subsidized, but in recent years the level of the interest subsidy has been reduced considerably. Agricultural income is exonerated from income taxes until at least the end of 2010. However, agriculture is not completely free of tax as it pays (like other sectors) taxes on energy, value added taxes on some products, and various marketing fees.

In the decade from 1986 to 1996, considerable agricultural market liberalization occurred in Morocco, but not border protection for sensitive commodities. Grain marketing licensing restrictions were diminished and transport rules removed. Market prices were freed for durum wheat and barley. Milk prices were partly liberalized. In general agricultural markets became more market oriented.

However, border protection for many agricultural commodities remains quite high. Poultry meat protection is 124 percent, and red meat protection is over 200 percent. Since 1996, the protection system used for several sensitive crops has been changed to resemble (economically) a variable levy. A complex system of two part levies is used, and the rate is changed from time to time to reflect movements in world prices. Currently, protection of common wheat is about 80 percent, but that changes with the world price.

Like other countries, Morocco agreed to reduce tariffs as part of its commitments under GATT. However, also like other countries, the reduction is in the tariff ceiling and not necessarily in the applied tariff. For example, Morocco is required to reduce its blé tendre tariff from 190 to 144 percent and to reduce its beef tariff from 315 to 239 percent. As previously indicated the current tariff on wheat is about 80 percent, so the GATT binding has no impact on the applied tariff. This is called binding overhang and is not uncommon. In fact, it is one reason why substantial progress may be difficult in this Doha round, since many countries have large differences between GATT binding tariff levels and actual applied tariffs.

In addition to being a member of WTO, Morocco has entered into several bi-lateral and regional trade agreements. In 1995, it entered an association agreement with the European Union, but that agreement excluded agriculture. Since then there has been some opening in agriculture. The last negotiation was completed in 2003 and gives Morocco preferential access to European markets for several agricultural products. Perhaps the greatest preference is for tomatoes. The current Moroccan quota is 210,000 tons. The minimum entry price for Morocco is considerably lower than for other countries. Morocco has continually increased tomato production as the quota has expanded. However, some in Morocco argue that this preference just brings Morocco back to the combined French and European preference it had in 1995. There are also problems in managing the quota since it is month by month with some provision for rolling over a small part of the monthly quota if it is not met.

Morocco also has EU quotas and/or preferential entry for some other products. At present, the quota for oranges is larger than the export level currently attained by Morocco. Thus, the quota is not a binding constraint on Moroccan orange exports.

In the last round of negotiations, Morocco gave the EU an import quota on common wheat. This is a quota that varies as a function of the level of Moroccan production of blé tendre. When Moroccan production is high (more than 3 million tons), the quota is 400,000 tons, and when production is low (2.1 million tons), the quota is 1,060,000 tons. When production is between 2.1 and 3.0 million tons, the quota is a linear function varying between the upper and lower limits.

Morocco more recently has signed other free trade agreements that include agriculture. These include the Arab FTA, Turkey, the Agadir agreement with Jordan, Egypt, and Tunisia, and the US FTA. In principle all of these take effect in 2005. The US agreement has import quotas for wheat (common and durum), beef, and poultry meat. The common wheat quota is similar to that for the EU described above. The agreement provides duty free access for Morocco to US markets for a wide variety of fruits and vegetables plus special access for textiles.

Finally, concerning foreign exchange, Morocco has relaxed controls on its exchange rate and on conversion of the Dirham. Today the rate is mostly market determined, although some believe the Dirham may still be overvalued by up to 10 percent.

Thus, one can say that economic policy, both domestic and border, has moved substantially over the past 25 years. Agricultural markets and trade have not been liberalized as much as other sectors. Some liberalization has occurred, but much more is needed if Morocco is to realize the potential of its agricultural and agro-processing sectors.

### ***Tunisia***

Per capita income in Tunisia is about \$6,800 PPP. GDP growth in recent years has been in the 5-6 percent range. About 12 percent of the GDP originates in agriculture. About 24 percent of the labor force is in agriculture, and about 33 percent of the population lives in rural areas. Our analysis for Tunisia will focus on olive oil, its most important agricultural export (except for dates in 2002, which are not produced in the European Union).

#### Major determinants of agricultural and agro-industrial production and performance

Tunisia is a Mediterranean climate with great variability among its regions. Rainfall can vary from a maximum of over 1,000 mm. in the North-west to a minimum of 50 mm. in the South. It also varies considerably from one year to another. The decade of the 1990s was particularly dry with four dry years, three relatively dry, two average, and one good year.

Cultivated area varies in Tunisia from one year to another, usually because of rainfall. Of the approximate 4 million hectares of cultivated land, about 2.1 million or 54 percent of the total is in olives. Most of the olive cultivation is in the central and southern regions where it constitutes 75 and 84 percent of the cultivated land, respectively. Cereal cultivation is in second place ranked by cultivated area with about 1.2 million hectares, or 30 percent of the total. Of that, 71 percent is in the northern areas and 29 percent in the south. Cereals occupy



52 percent of cultivated area in the north. The main cereals are common wheat, durum wheat, and barley. Fodder crops are ranked third with about 400,000 hectares or 10 percent of total cultivated area. Vegetables cover 4 percent and legumes 3 percent of cultivated land. Both are produced mainly in northern areas with some production in the central region.

The structure of farm size is provided in Table 7. Over half the farms are less than five hectares and three-quarters are less than 10. Farms less than five hectares constitute only 9 percent of the arable land, and farms less than 10 hectares represent 21 percent of arable land. The data in Table 7 includes both cultivated land and idle land or pasture. Twenty percent of the farmers and 42 percent of the land are in the class 10 – 50 hectares.

Olives are grown on 57 percent of the farms. Farms with less than 20 hectares represent 81.5 percent of olive growing farms but 32 percent of the area. Farms greater than 20 hectares represent 19.5 percent of farms but 68 percent of the area. The age structure of olive trees is such that 31.5 percent are less than 20 years old, 54.5 percent between 20 and 70 years old, and 14 percent over 70 years old. There is a higher concentration of older trees in some of the more productive regions. In addition, 35 percent of the trees are marginal climatic zones not well adapted to olive production. Olive oil production varies considerably from one year to the next and by region within Tunisia. Table 8 shows the average area, yield, and production of olives in different regions of Tunisia. The coefficient of variation for the national total over the period 1990-2002 was 0.51.

**Table 7: Farm Size Distribution in Tunisia, 1994-95**

Category	Number Of Farms (1000)	%	Land Area (1000 ha)	%
< 5 ha.	251	53	471	9
5 – 10 ha.	92	24	643	12
10 -50 ha.	114	20	2235	42
50 – 100 ha.	10	2	645	12
> 100 ha.	4	1	1301	25
Total	471	100	5295	100

Source: Tunisia WP1 report.

**Table 8: Average Tunisian Olive Oil Production, 1990-2002**

Region	Area (1000 ha)	Production (1000 tons)	Yield Kg/ha
North	177.5	140	789
Center	1185.0	525	480
South	249.0	76	307
Total	1611.2	741	460

Source: Tunisia WP1 report.

Tunisia has 1,589 olive oil tritulating mills with an estimated capacity of 27,769 tons/day. The mills only function in season which can vary between 30-40 days for low production up to 90-120 days for a high production year. The mills vary in age and technology used for producing olive oil. The average olive oil production for 1990-2002 was 150,000 tons.

Marketing of olives is free and is done in several ways. Olives can be sold “on the tree” before harvest, or they can be sold at wholesale markets or directly to one of the mills. The price varies with quality.

Up until 1994, the collection and marketing of olive oil was handled exclusively by national olive oil company. Since 1994, private companies have been permitted to enter the business. There are now over 100 companies authorized to handle olive oil exports. By 1999, private companies had captured 59 percent of the export volumes. That share fell to 40 percent in 2002, a very low production year. The national oil company has retained the rights to the EU quota, which helps to explain why their share would rise in low production years. In a good production year, it is expected that the private sector would have two-thirds of the olive oil exports.

On average over the period 1990-2002, Tunisia exported 106.5 thousand tons of olive oil and was the fourth largest olive oil exporter in the world following Spain, Italy, and Greece. The largest destination is the EU. Tunisia has a quota for bulk olive oil currently at 54,500 tons. Most of the oil exports have been lower quality. Lamp olive oil represented 71 percent of the total over this period and virgin super-extra 21 percent. Tunisia has about 14 percent of the EU market for all qualities of olive oil but only 7 percent of the virgin super-extra market. But that 7 percent total market share represents over half of EU imports of that high quality oil, whereas Tunisia’s low quality lamp oil exports cover one-quarter of EU imports of that quality.

#### Agricultural, agro-industrial, and trade policies

Tunisia has historically followed an interventionist agricultural policy. This was particularly the case for the two most important products – olive oil and cereals. In the early 1990s a liberalization process was begun such that trade in maize and soybean meal was somewhat liberalized. As mentioned above, in 1994 collection and marketing of olive oil was opened to the private sector. The national olive oil company remains and it retains the EU quota for bulk olive oil. But the private sector has made significant inroads into total olive oil exports such that it now normally handles well over half the exports. The state still handles imports and domestic marketing of wheat as well as the subsidy on flour.

While there was some liberalization during the structural adjustment of the 1980s and early 1990s, the state still intervenes in markets. In particular, there are state provided subsidies for treatment of olive trees, water supply and irrigation investments, olive oil plants (especially in areas that do not have enough capacity), certain marketing costs for exporters, and other activities. In addition to these subsidies, the government attempts to maintain stable markets through price stabilization policies.

In international trade, Tunisia is a member of WTO. Like many WTO members, its bound tariffs for agricultural goods are considerably higher than the applied tariffs. In addition to tariffs, Tunisia uses quotas for certain sensitive products like wheat and sugar.

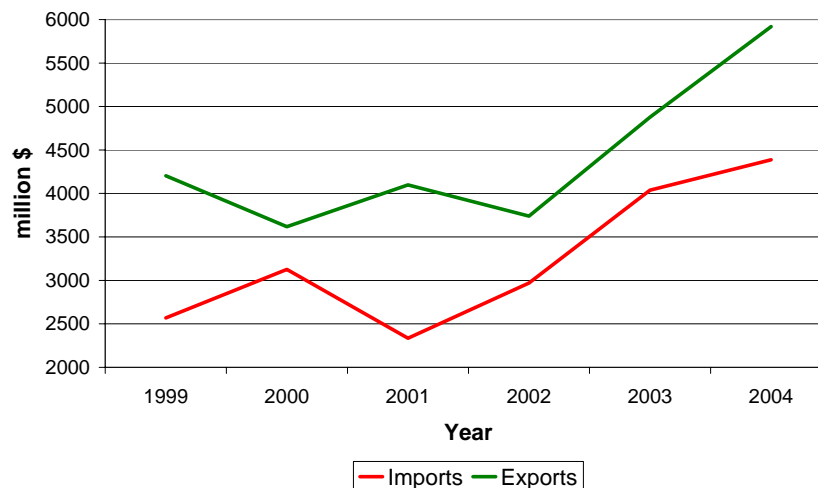
Tunisia also has a preferential agreement with the EU. As mentioned above, this agreement includes a quota for bulk olive oil exports at a reduced duty. In addition to the EU agreement, Tunisia also has other free trade agreements such as the Agadir agreement with Morocco, Jordan, and Egypt, and the Arab Free Trade Agreement.

## Turkey

Turkey has a per capita income of \$6,400 PPP, roughly equivalent to that of Tunisia. About 13 percent of value added comes from the agricultural sector, and about 33 percent of the population is rural. About 45 percent of the labor force is agricultural. About 13 percent of total exports are agricultural and 6 percent of imports. So Turkey has a significant agricultural trade surplus, which averaged \$1.17 billion over the period 1999-2004 (Figure 1). On average agricultural exports were 39% more than imports over this period.

**Figure 1**

### Turkish Agricultural Exports and Imports



Source: Turkish Institute of Statistics (from Erol Cakmak).

### Major determinants of agricultural and agro-industrial production and performance

As in many countries, water is a major factor in the success of Turkish agriculture. At present Turkey has abundant water resources and has an irrigated area of between 3.7 and 5.2 million hectares out of 26 million hectares of arable land.<sup>2</sup> Twenty seven percent of the tree area and 78 percent of the vegetable

<sup>2</sup> The three data sources we used for irrigated land provide quite different numbers. The World Bank is highest at 5.2 mil. ha., the Turkey WP1 report lowest at 3.7 mil. ha., and FAO in between at 4.5 mil. ha.

areas are irrigated. Turkey currently has a gross water potential per capita of 2,000 m<sup>3</sup>. However, this number is expected to fall to 1,300 by 2010. Using these figures, Turkey would be considered a water deficit country by international standards.<sup>3</sup>

The average farm size in Turkey is about 6 hectares. Table 9 contains the size distribution of Turkish farms. Fifteen percent of the farms are less than one hectare, and these farms comprise a little over 1 percent of the land. About half the farms are between 1 and 5 hectares, and these farms have about 20 percent of the land.

**Table 9: Turkey Farm Size Distribution, 2001**

Farm size	Farms %	Land area %
Landless	1.77	0.00
< 1 ha	15.22	1.28
1 - 4.9 ha	48.45	19.30
5 - 9.9 ha	18.21	20.41
10 - 19.9 ha	10.64	24.05
20 - 49.9 ha	5.00	23.69
50 - 99.9 ha	0.57	6.32
100 - 249.9 ha	0.14	3.07
250 + ha	0.01	1.90

Source: Turkey WP1 report.

A little over half (53 percent) the total crop area is allocated to cereals with wheat (36 percent) and barley (14 percent) being the largest crops. Six percent of the area is in pulses and 5 percent in industrial crops (tobacco, sugarbeet, and cotton). Oilseeds and tuber crops follow with 2 and 1 percent respectively. Vegetables occupy a small area but represent one-quarter of the value of agricultural output. Table 10 shows the rank for Turkey in global production of several important crops.

The marketing channels for fresh fruits and vegetables are illustrated in Figure 2. Only 20-40 percent of the fruits and vegetables transit by the official channel in the center of Figure 2. It is estimated that 74 percent of the fresh fruits and vegetables sold in Ankara, 83 percent in Istanbul, and 96 percent in Ismir are transacted on open markets on the right side of Figure 2 (WP1 Turkey report). Generally, the marketing system is considered to be inefficient, and much of the produce sold on local markets does not move through a cold chain.

Fruit and vegetable processing has long been an important sub-sector in Turkey. It has become an important export activity as well. In 2000, 79 percent of the 225,000 tons of canned fruits and vegetables were exported. Europe and the Middle East are the most important markets. The leading exports are prepared

<sup>3</sup> Water deficit countries fall into the range of 1000-3000 m<sup>3</sup> per capita.

nuts, processed products containing sugar, prepared fruit, olive oil, tomato products, and canned vegetables. Important unprocessed exports include hazelnuts, dried apricots, lentils, dried figs, tomatoes, and raisins.

**Table 10: Turkey's Global Rank in Production of Some Important Crops, 2003**

Product	Rank
Figs	1
Hazelnuts	1
Apricots	1
Cucumber	2
Watermelon	2
Lentils	2
Chick-peas	3
Chillies and peppers	3
Eggplant	3
Tomatoes	3

Source: Turkey WP1 report.

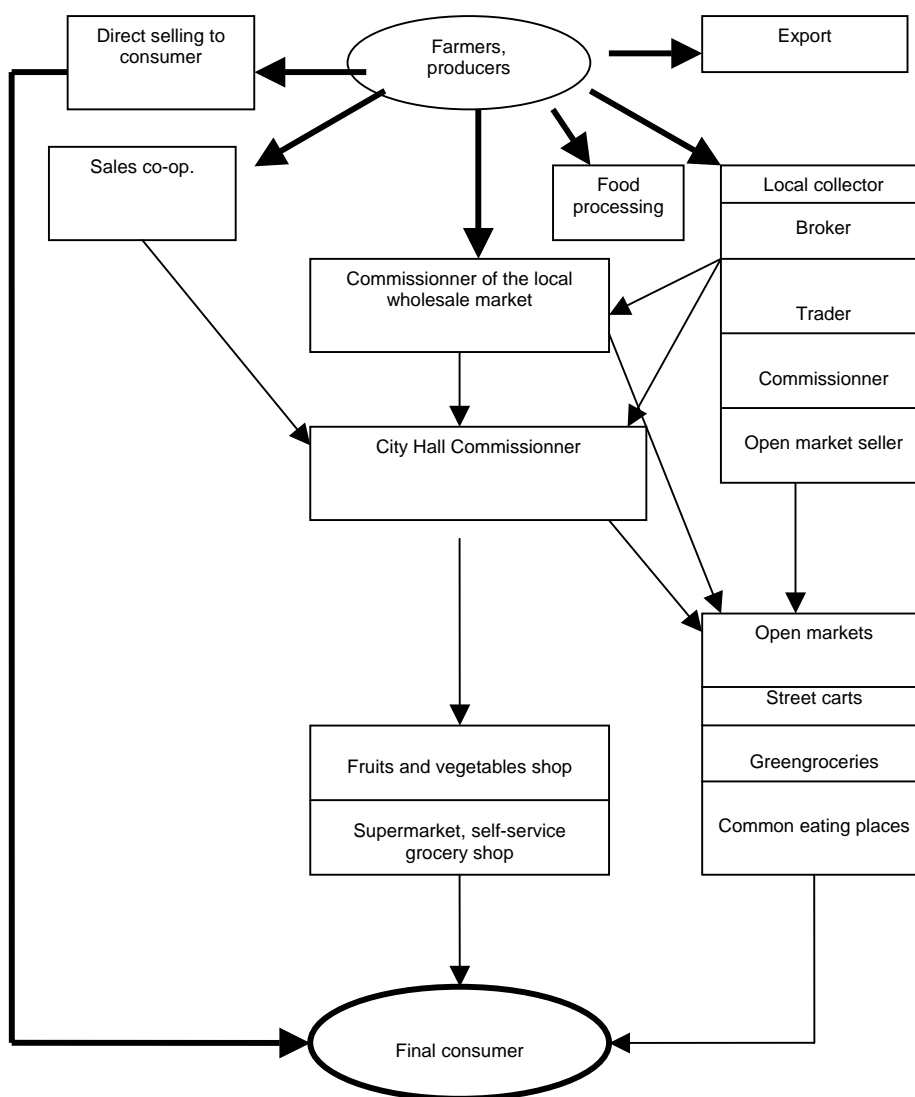
#### Agricultural, agro-industrial, and trade policies

Agricultural policies are becoming more market oriented in Turkey. A major reform was launched in 2001 with many price support programs being replaced by direct (decoupled) income transfers. The direct income support (DIS) is a fixed payment per hectare for the first 50 hectares of a farming operation. Thus, with the cap on size, it is somewhat targeted.

As of 2003 the Producer Support Estimate (PSE) for Turkey was 26 percent with about 80 percent of that being market price support. Only 14 percent was payments based on historical entitlement, so market price support still played an important role in 2003. The Consumer Support Estimate (CSE) also was 26 percent indicating that much of the support was paid by consumers through higher prices rather than being funded through taxes. The average transfer to agriculture between 2001 and 2003 was about US\$ 8 billion, down from US\$ 12 billion in 1998-2000.

The major component of Turkey's trade policy is its customs union with the European Union established in 1996. In addition to direct trade policies, this union involves harmonization of competition and commercial policies (including intellectual property rights) with the EU. The customs union does not cover agriculture, services, or public procurement. Customs duties and quantitative restrictions have been removed for all industrial goods including processed agricultural products. However, for processed agricultural products, any given product is portioned into two components – an industrial good and an agricultural good. The industrial good component has duty free access, and the agricultural good component is protected as if it were the original commodity.

**Figure 2: Marketing Channels for Fruits and Vegetables**



In the event that the customs union were to be extended to agricultural products, it would involve not only removing trade barriers but also harmonizing of agricultural support policies. Today Turkey has preferential access for many agricultural commodities.

Turkey also participates in multilateral trade negotiations through the WTO and other bilateral trade agreements. One example of a bilateral trade agreement is the agreement with Morocco.

***Fruit, vegetable and olive oil production and export potentials***

Estimation of the potential for expanding production of fruits, vegetables, and olive oil is to be done in future tasks of this project. But, in a comparative sense, what lessons can be drawn from this overview and the underlying WP1 reports of the current situation in these countries? There appear to be several important points that we will take forward to the next steps of our analysis:

- Water is probably the most important binding constraint in increasing production in all the countries.
  - For Israel, water is the binding constraint, and water scarcity likely will mean little production expansion in the future.
  - For Turkey, water is less of a constraint today than for the other countries, but future projections place Turkey in a water deficit category as early as 2010. However, Turkey is the most water abundant country among the five countries in this study.
  - Morocco and Tunisia are water bound. There is some potential to expand irrigated area, but it may be at high cost.
  - In Egypt, the problem is not so much total water availability as allocation of the water. Egypt still produces lots of cereals, even though it is one of the world's largest wheat importers.
  
- A second major constraint is agricultural policy.
  - Starting in 2001, Turkey has made significant reforms to its agricultural policy, substituting direct payments for some commodity payments. However, with a PSE of 26 percent, agriculture is still protected.
  - In Egypt, there is potential to expand production of fruits and vegetables substantially, but current agricultural policy is a major hindrance. The state supports prices for wheat and maize leading farmers use more land for production of these crops instead of fruits and vegetables.
  - In Morocco and Tunisia, state intervention in wheat markets leads farmers to produce more of that commodity. However, in both countries it is likely that the transition away from wheat will take place over 20 years or more and be done only as other opportunities become available. Neither country is prepared to reverse the income transfers that have been made through higher wheat prices without clear opportunities in other crops.
  - Irrigated land is often used for crops such as sugar cane or sugar beet, that are not economically viable. If the policies were changed, and that land used for production of fruits and vegetables, greater production and exports might be achieved.
  - In Israel, current policy is aimed at reducing water use in agriculture through improved technology and through reallocation to other sectors.
  
- A third major constraint is marketing and export infrastructure.
  - Many countries lack adequate grades and standards that will be needed to increase exports substantially.
  - An adequate cold chain is not present in many countries, and export markets will require a continuous cold chain to secure the high quality demanded in those markets.
  - Government intervention in fruit and vegetable marketing still exists to some extent in Tunisia, Turkey, Morocco, and Egypt. Successful export operations will be achieved through private sector activities.

- Transportation systems will need to be improved in most countries if the export activities are to be competitive.

There are, of course, many other factors important to the potential for production and export growth in each country. We will go into these factors in greater detail in future analyses of export growth potential by product and country.





**ANNEX A – GENERAL INDICATORS - Source: FAOSTAT and IAM.M**

**Egypt – General indicators**

<b>Population &amp; Agricultural Labour Force</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Population	1000	43 762	56 207	65 505	66 693	67 884	69 080
Population annual growth	percent	2,5	2,2	1,8	1,8	1,8	1,7
Rural / Total Population	percent	56	56	57	57	57	57
Density	Inh/ sq km	44	56	66	67	68	
Agricultural Labour Force	1000	8 692	7 980	8 480	8 537	8 591	8 665
Agricultural Labour Force/Total Labour Force	percent	57	41	35	34	33	33

<b>Land Use</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Total Land	1000 HA	99 545	99 545	99 545	99 545	99 545	
Arable Land + Permanents Crops	1000 HA	2 453	2 621	3 300	3 300	3 291	
Arable Land	1000 HA	2 299	2 282	2 834	2 834	2 825	
Irrigated Land	1000 HA	2 453	2 621	3 300	3 300	3 291	

<b>Macroeconomic Indicators</b>	<b>UNIT</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
GDP	US\$	22 912 500 000	43 130 417 227	82 083 825 266	89 088 764 376	99 427 564 949	98 475 775 721
GDP growth (annual %)	annual %	10,0	5,7	4,5	6,3	5,1	2,9
GNI per capita, PPP (current international US\$)	MLN US\$	1 210	2 320	3 080	3 280	3 510	3 560
Agriculture, value added (% of GDP)	% GDP	18,3	19,4	17,4	17,3	16,7	16,8
Agriculture, value added (annual % growth)	annual % growth	3,5	2,8	3,6	3,5	3,4	9,0
Agriculture value added per worker (constant 1995 US\$)	MLN US\$	720	1 046	1 231	1 266	1 300	1 405

<b>Lands &amp; Inputs</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Population/Arable Land	Inh / HA	19	25	23	24	24	
Fertilizer Use/Arable Land	kg nutrs./HA	286	418	413	422	449	
Tractors/Arable Land	no / 1000 HA	15,8	25	30,3	30,3	30,4	

<b>Food Production</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Food Production Index	1989-91=100	68	100	142	152	152	149
Per caput Food Production Index	1989-91=100	88	100	122	128	126	121

<b>Food Supply</b>	UNIT	1979-1981	1989-1991	1999-2001
Per caput Dietary Energy Supply	kcal/day	2 920	3 150	3 370
Per caput Dietary Protein Supply	g / day	73	83	95

<b>Foreign Trade - Exports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	2 706	2 964	5 128	4 445	6 388	5 600
Agricultural	MLN US\$	675	450	575	585	499	629

<b>Foreign Trade - Imports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	5 847	8 171	16 899	17 008	17 861	12 756
Agricultural	MLN US\$	2 551	2 925	3 438	3 508	3 611	3 222

<b>Agriculture trade balance</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Exports-Imports	MLN US\$	-1 877	-2 475	-2 863	-2 923	-3 112	-2 594

## Israel – General indicators

<b>Population &amp; Agricultural Labour Force</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Population	1000	3 763	4 523	5 779	5 910	6 040	6 172
Population annual growth	percent	1,9	2,8	2,3	2,2	2,2	2,2
Rural / Total Population	percent	11	10	9	9	8	8
Density	Inh/ sq km	182	219	280	287	293	
Agricultural Labour Force	1000	87	74	72	71	70	69
Agricultural Labour Force/Total Labour Force	percent	6	4	3	3	3	3

<b>Land Use</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Total Land	1000 HA	2 062	2 062	2 062	2 062	2 062	
Arable Land + Permanents Crops	1000 HA	415	430	419	418	418	
Arable Land	1000 HA	325	343	335	333	333	
Irrigated Land	1000 HA	204	202	194	194	194	

<b>Macroeconomic Indicators</b>	<b>UNIT</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
GDP	US\$	21 780 968 646	52 490 325 648	100 731 559 696	100 837 984 990	110 385 549 261	108 324 774 132
GDP growth (annual %)	annual %	6,9	6,8	2,6	2,2	6,0	-0,9
GNI per capita, PPP (current international US\$)	MLN US\$	7 840	13 490	18 320	18 700	20 110	19 630
Agriculture, value added (% of GDP)	% GDP	..	..	..	..	..	..
Agriculture, value added (annual % growth)	annual % growth	..	..	..	..	..	..
Agriculture value added per worker (constant 1995 US\$)	MLN US\$	..	..	..	..	..	..

<b>Lands &amp; Inputs</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Population/Arable Land	Inh / HA	12	13	17	18	18	
Fertilizer Use/Arable Land	kg nutrs./HA	238	288	361	339	321	
Tractors/Arable Land	no / 1000 HA	80,9	79,5	73,1	73,6	73,6	

<b>Food Production</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Food Production Index	1989-91=100	85	100	115	112	116	114
Per caput Food Production Index	1989-91=100	102	100	90	86	87	84

<b>Food Supply</b>		1979-1981	1989-1991	1999-2001
Per caput Dietary Energy Supply	kcal/day	3 150	3 380	3 520
Per caput Dietary Protein Supply	g / day	106	111	114

<b>Foreign Trade - Exports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	5 251	11 681	23 417	25 793	31 338	29 019
Agricultural	MLN US\$	871	1 186	1 187	1 202	912	942

<b>Foreign Trade - Imports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	7 844	15 144	27 470	31 090	35 750	33 319
Agricultural	MLN US\$	936	204	1 832	1 843	1 811	1 865

<b>Agriculture trade balance</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Exports-Imports	MLN US\$	-65	-18	-646	-640	-899	-923

## Morocco – General indicators

<b>Population &amp; Agricultural Labour Force</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Population	1000	19 393	24 624	28 796	29 334	29 878	30 430
Population annual growth	percent	2,4	2,1	1,9	1,9	1,8	1,8
Rural / Total Population	percent	59	52	46	45	45	44
Density	Inh/ sq km	43	55	65	66	67	
Agricultural Labour Force	1000	3 891	4 083	4 229	4 240	4 251	4 271
Agricultural Labour Force/Total Labour Force	percent	56	45	38	37	36	35
<b>Land Use</b>	<b>UNIT</b>	<b>1979-1981</b>	<b>1989-1991</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Total Land	1000 HA	44 630	44 630	44 630	44 630	44 630	
Arable Land + Permanents Crops	1000 HA	8 075	9 354	9 976	9 768	9 734	
Arable Land	1000 HA	7 575	8 627	9 033	8 818	8 767	
Irrigated Land	1000 HA	1 208	1 258	1 291	1 305	1 305	
<b>Macroeconomic Indicators</b>	<b>UNIT</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
GDP	US\$	18 821 000 000	25 821 000 000	35 817 000 000	35 277 000 000	33 345 000 000	34 219 000 000
GDP growth (annual %)	annual %	3,6	4,0	7,7	0,0	0,9	6,5
GNI per capita, PPP (current international US\$)	MLN US\$	1550	2640	3210	3230	3320	3500
Agriculture, value added (% of GDP)	% GDP	18,4	17,7	17,2	15,2	13,5	15,6
Agriculture, value added (annual % growth)	annual % growth	6,1	-5,0	27,9	-16,7	-16,2	23,0
Agriculture value added per worker (constant 1995 US\$)	MLN US\$	1289	1788	1909	1586	1326	1624

<b>Lands &amp; Inputs</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Population/Arable Land	Inh / HA	3	3	3	3	3	
Fertilizer Use/Arable Land	kg nutrs./HA	27	37	36	41	41	
Tractors/Arable Land	no / 1000 HA	3,4	4,5	4,8	4,9	4,9	
<b>Food Production</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Food Production Index	1989-91=100	56	100	113	105	97	104
Per caput Food Production Index	1989-91=100	71	100	96	88	80	84
<b>Food Supply</b>		1979-1981	1989-1991	1999-2001			
Per caput Dietary Energy Supply	kcal/day	2 750	3 050	3 000			
Per caput Dietary Protein Supply	g / day	72	85	81			
<b>Foreign Trade - Exports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	2247	3953	7135	7376	6956	7122
Agricultural	MLN US\$	516	612	840	883	695	703
<b>Foreign Trade - Imports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	4104	6431	10262	10809	11534	10961
Agricultural	MLN US\$	932	820	1560	1517	1668	1669

## Tunisia – General indicators

<b>Population &amp; Agricultural Labour Force</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Population	1000	6 449	8 157	9 266	9 360	9 459	9 562
Population annual growth	percent	2,7	2	1	1	1	1,1
Rural / Total Population	percent	48	42	36	35	34	34
Density	Inh/ sq km	42	53	60	60	61	
Agricultural Labour Force	1000	855	816	924	933	942	949
Agricultural Labour Force/Total Labour Force	percent	39	28	25	25	25	24

<b>Land Use</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Land	1000 HA	15 536	15 536	15 536	15 536	15 536	
Arable Land + Permanents Crops	1000 HA	4 801	4 868	4 950	5 014	5 014	
Arable Land	1000 HA	3 256	2 909	2 879	2 909	2 909	
Irrigated Land	1000 HA	232	328	380	380	380	

<b>Macroeconomic Indicators</b>	UNIT	1980	1990	1998	1999	2000	2001
GDP	US\$	8 743 054 698	12 290 568 182	19 850 092 210	20 969 988 198	19 462 099 657	19 989 573 921
GDP growth (annual %)	annual %	7,4	8,0	4,8	6,1	4,7	4,9
GNI per capita, PPP (current international US\$)	MLN US\$	2230	3580	5090	5450	5840	6090
Agriculture, value added (% of GDP)	% GDP	14,1	15,7	12,5	12,9	12,3	11,6
Agriculture, value added (annual % growth)	annual % growth	9,9	30,3	-0,9	11,6	-1,0	-2,1
Agriculture value added per worker (constant 1995 US\$)	MLN US\$	1751	2752	2933	3240	3177	3088



<b>Lands &amp; Inputs</b>	UNIT	1979-1981	1989-1991	1998	1999	2000
Total Population/Arable Land	Inh / HA	2	3	3	3	3
Fertilizer Use/Arable Land	kg nutrs./HA	21	33	40	39	38
Tractors/Arable Land	no / 1000 HA	7,9	8,6	12,2	12,1	12,1

<b>Food Production</b>	UNIT	1979-1981	1989-1991	1998	1999	2000
Food Production Index	1989-91=100	66	100	125	136	132
Per caput Food Production Index	1989-91=100	84	100	110	119	113

<b>Food Supply</b>		1979-1981	1989-1991	1999-2001
Per caput Dietary Energy Supply	kcal/day	2 830	3 150	3 340
Per caput Dietary Protein Supply	g / day	77	85	92

<b>Foreign Trade - Exports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000
Total	MLN US\$	2 179	3 386	5 730	5 879	5 855
Agricultural	MLN US\$	191	322	439	578	429

<b>Foreign Trade - Imports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000
Total	MLN US\$	3 393	5 029	8 341	8 498	8 586
Agricultural	MLN US\$	519	608	911	749	756

<b>Agriculture trade balance</b>	UNIT	1979-1981	1989-1991	1998	1999	2000
Exports-Imports	MLN US\$	-328	-286	-472	-172	-327

## Turkey – General indicators

<b>Population &amp; Agricultural Labour Force</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Population	1000	44 668	56 092	64 652	65 674	66 668	67 632
Population annual growth	percent	2,3	2	1,6	1,6	1,5	1,4
Rural / Total Population	percent	56	39	35	35	34	34
Density	Inh/ sq km	58	73	84	85	87	
Agricultural Labour Force	1000	11 417	13 023	14 196	14 316	14 426	14 485
Agricultural Labour Force/Total Labour Force	percent	61	54	48	47	46	45
<b>Land Use</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Land	1000 HA	76 963	76 963	76 963	76 963	76 963	
Arable Land + Permanents Crops	1000 HA	28 595	27 754	26 968	26 672	26 672	
Arable Land	1000 HA	25 538	24 731	24 438	24 138	24 138	
Irrigated Land	1000 HA	2 733	3 867	4 380	4 500	4 500	
<b>Macroeconomic Indicators</b>	UNIT	1980	1990	1998	1999	2000	2001
GDP	US\$	70 903 189 300	150 641 895 155	199 579 620 427	183 823 427 110	199 267 312 944	147 682 714 450
GDP growth (annual %)	annual %	-2,4	9,3	3,1	-4,7	7,4	-7,4
GNI per capita, PPP (current international US\$)	MLN US\$	2270	4320	6040	5800	6350	5830
Agriculture, value added (% of GDP)	% GDP	26,4	18,3	18,5	16,0	15,4	13,8
Agriculture, value added (annual % growth)	annual % growth	1,4	7,1	9,3	-5,6	3,8	-5,5
Agriculture value added per worker (constant 1995 US\$)	MLN US\$	1904	1860	1979	1853	1909	1796

<b>Lands &amp; Inputs</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total Population/Arable Land	Inh / HA	2	2	3	3	3	
Fertilizer Use/Arable Land	kg nutrs./HA	53	74	89	91	87	
Tractors/Arable Land	no / 1000 HA	16,9	27,8	36,9	37,5	37,5	
<b>Food Production</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Food Production Index	1989-91=100	76	100	118	112	118	109
Per caput Food Production Index	1989-91=100	95	100	102	96	100	91
<b>Food Supply</b>		1979-1981	1989-1991	1999-2001			
Per caput Dietary Energy Supply	kcal/day	3 290	3 530	3 360			
Per caput Dietary Protein Supply	g / day	97	101	96			
<b>Foreign Trade - Exports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	3 291	12 726	26 974	26 588	27 775	31 334
Agricultural	MLN US\$	1 949	3 238	4 788	4 210	3 621	4 094
<b>Foreign Trade - Imports</b>	UNIT	1979-1981	1989-1991	1998	1999	2000	2001
Total	MLN US\$	7 304	19 714	45 921	40 687	54 503	41 399
Agricultural	MLN US\$	267	1 827	3 508	2 654	3 231	2 421
Exports-Imports	MLN US\$	1 682	1 411	1 280	1 556	390	1 672

**ANNEX B – KEY AGRICULTURAL INDICATORS - Source: FAOSTAT and IAM.M**

**Production**

**Egypt - Production**

Product	Unit	1979-1981	1989-1991	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	Mt	18 097	57 174	388 461	415 647	468 269	473 588	484 132	484 132
Cantaloupes&oth Melons	Mt	725 657	#DIV/0!						
Dates	Mt	414 242	572 340	839 805	905 953	1 006 710	1 113 270	1 115 000	1 115 000
Grapefruit and Pomelos	Mt	1 515	2 066	2 230	2 993	2 998	3 083	3 100	3 100
Grapes	Mt	279 806	577 470	957 734	1 009 560	1 075 100	1 078 910	1 103 840	1 103 840
Lemons and Limes	Mt	66 887	352 465	252 525	278 637	274 484	296 267	296 776	296 776
Olives	Mt	5 232	40 995	200 000	287 080	281 745	293 903	318 339	318 339
Oranges	Mt	955 634	1 532 175	1 441 652	1 636 600	1 610 520	1 696 290	1 725 000	1 725 000
Strawberries	Mt	1 481	32 963	52 321	53 684	70 612	68 137	68 000	68 000
Tang.Mand.Clement.Satsma	Mt	80 787	231 718	421 811	511 755	481 182	564 851	500 000	500 000
<b>VEGETABLES</b>									
Beans, Dry	Mt	9 889	25 157	24 500	33 183	33 019	40 645	41 000	41 000
Chick-Peas	Mt	11 100	10 839	11 133	14 997	15 315	13 160	13 596	13 596
Chillies&Peppers, Green	Mt	171 206	264 866	410 784	388 095	428 066	386 687	387 000	387 000
Lentils	Mt	6 863	12 667	7 651	3 684	3 354	3 779	3 539	3 539
Onions, Dry	Mt	641 731	526 000	722 672	889 797	762 993	628 376	630 000	630 000
Potatoes	Mt	1 142 494	1 693 631	1 984 013	1 808 890	1 769 910	1 903 130	1 900 000	1 900 000
Tomatoes	Mt	2 447 615	4 008 943	5 753 279	6 273 760	6 785 640	6 328 720	6 350 000	6 350 000
<b>OTHER MAIN COMMODITIES</b>									
Wheat	Mt	1 843 589	3 977 524	6 093 151	6 346 642	6 564 053	6 254 580	6 183 210	6 150 000
Barley	Mt	110 889	133 667	148 021	114 359	99 392	93 905	100 797	100 797
Maize	Mt	3 158 974	4 816 605	6 336 802	6 143 360	6 474 450	6 842 310	6 500 000	6 400 000
Rice, Paddy	Mt	2 376 487	3 098 078	4 474 110	5 816 960	6 000 490	5 226 700	5 600 000	5 800 000
Sugar Beets	Mt	105 333	788 513	1 951 241	2 559 650	2 890 360	2 857 730	3 168 310	2 900 000
Sugar Cane	Mt	8 737 839	11 310 543	14 352 780	15 253 620	15 705 800	15 571 500	15 000 000	12 000 000
Cattle Meat	Mt	263 667	363 833	583 254	578 492	616 594	624 808	628 500	631 500
Chicken and Turkey Meat	Mt	88 932	208 450	439 741	494 954	525 062	548 978	558 000	558 000
Milk (cow and buffalo)	Mt	1 896 333	2 235 000	3 374 260	3 615 080	3 668 705	3 920 610	3 977 000	3 977 000
Hen Eggs	Mt	78 100	143 817	168 120	153 270	176 665	199 631	200 000	200 000

## Israel – Production

Product	Unit	1979-1981	1989-1991	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	Mt	118 533	117 997	102 910	127 520	102 500	92 066	95 000	98 000
Avocados	Mt	24 300	40 233	65 684	55 900	81 303	85 868	55 000	58 000
Cantaloupes&oth Melons	Mt	736	#DIV/0!						
Cherries	Mt	200	783	1 500	2 100	1 581	2 154	2 200	2 200
Dates	Mt	4 984	12 333	8 200	10 900	11 732	9 163	9 200	9 200
Grapefruit and Pomelos	Mt	501 050	381 533	377 475	372 200	324 379	325 317	255 000	270 000
Grapes	Mt	77 433	87 133	88 600	84 950	101 837	118 537	114 000	116 000
Olives	Mt	24 300	26 000	32 000	23 200	56 000	26 000	56 000	56 000
Oranges	Mt	865 800	663 533	312 900	203 500	262 685	212 867	198 000	200 000
Strawberries	Mt	7 667	13 490	15 500	15 500	16 449	17 745	17 000	17 000
Tang.Mand.Clement.Satsma	Mt	88 850	131 183	177 600	127 600	135 800	91 000	100 000	100 000
<b>VEGETABLES</b>									
Chick-Peas	Mt	4 233	7 700	8 800	9 500	13 600	12 870	16 525	16 700
Chillies&Peppers, Green	Mt	50 633	50 601	95 490	102 300	90 740	99 970	101 000	101 000
Lemons and Limes	Mt	53 683	43 000	20 800	20 100	21 027	16 050	30 000	27 000
Lentils	Mt	60	37	50	50	30	30	30	30
Onions, Dry	Mt	47 367	61 779	80 600	92 550	106 458	78 954	81 000	81 000
Onions+Shallots, Green	Mt	2 750	5 431	7 000	7 200	7 500	8 100	8 100	8 100
Potatoes	Mt	200 267	204 883	346 500	363 509	388 665	396 318	393 976	395 000
Tomatoes	Mt	254 567	438 371	493 100	574 600	462 048	399 322	352 000	360 000
<b>OTHER MAIN COMMODITIES</b>									
Wheat	Mt	200 467	224 300	155 000	29 000	96 000	161 970	175 580	170 000
Barley	Mt	18 433	5 867	2 500	1 000	2 300	9 000	11 800	5 000
Maize	Mt	13 067	99 250	87 300	82 160	74 580	60 840	58 000	60 000
Sugar Beets	Mt	81 600	0	0	0	0	0	0	0
Cattle Meat	Mt	22 500	41 347	49 200	51 800	66 182	67 793	69 762	60 400
Chicken and Turkey Meat	Mt	149 667	179 667	264 000	275 000	407 429	442 857	449 000	443 000
Cow Milk, Whole, Fresh	Mt	701 667	963 867	1 197 120	1 194 000	1 186 042	1 229 831	1 212 600	1 300 000
Hen Eggs	Mt	91 675	104 663	86 800	91 800	87 900	84 650	86 800	89 000

## Morocco - Production

Product	Unit	1979-1981	1989-1991	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	Mt	70 000	254 933	284 800	303 100	300 005	227 800	372 500	372 500
Avocados	Mt	1 000	4 500	11 000	13 000	13 000	13 600	13 500	13 500
Cantaloupes&oth Melons	Mt	160 000	337 363	372 200	419 210	373 840	406 010	380 000	380 000
Cherries	Mt	380	2 533	7 200	7 166	6 400	4 500	2 600	2 600
Dates	Mt	79 000	110 900	85 000	72 561	74 000	32 400	33 200	33 200
Grapefruit and Pomelos	Mt	12 333	7 000	4 000	1 000	2 000	1 000	2 000	2 000
Grapes	Mt	232 633	249 418	261 560	334 800	252 600	191 900	330 662	300 000
Lemons and Limes	Mt	14 000	17 667	21 000	9 000	14 000	6 000	11 400	20 000
Olives	Mt	285 667	532 000	708 550	475 750	400 000	420 000	470 000	470 000
Oranges	Mt	705 000	965 333	1 103 800	873 500	870 000	708 000	723 100	730 000
Strawberries	Mt	50	1 433	40 000	58 200	105 000	90 000	90 000	90 000
Tang.Mand.Clement.Satsma	Mt	265 667	319 000	462 400	424 000	531 000	263 000	405 700	410 000
<b>VEGETABLES</b>									
Beans, Dry	Mt	6 767	5 200	11 000	11 000	11 750	12 000	12 000	12 000
Chick-Peas	Mt	38 250	56 387	57 750	28 100	15 060	31 790	51 340	51 340
Lentils	Mt	11 409	35 520	24 840	12 960	2 680	12 890	41 670	41 670
Chillies&Peppers, Green	Mt	34 667	71 606	203 950	180 830	180 170	177 350	142 840	150 000
Potatoes	Mt	502 533	956 971	1 114 000	1 140 780	910 850	1 154 600	1 334 380	1 200 000
Onions, Dry	Mt	156 667	349 685	565 300	523 410	348 270	533 680	609 650	609 650
Onions+Shallots, Green	Mt	14 067	12 000	14 000	15 000	15 000	16 000	16 000	16 000
String Beans	Mt	0	6 000	27 000	35 000	37 000	40 000	52 600	52 600
Tomatoes	Mt	394 333	835 340	1 242 400	1 116 000	1 165 000	881 000	991 020	991 020
<b>OTHER MAIN COMMODITIES</b>									
Wheat	Mt	1 499 667	4 159 923	4 378 480	2 153 540	1 380 700	3 316 380	3 358 680	5 146 840
Barley	Mt	1 712 223	2 796 260	1 970 000	1 473 980	466 810	1 155 240	1 668 980	2 620 390
Maize	Mt	244 773	391 167	200 500	136 380	95 000	53 560	198 880	198 000
Rice, Paddy	Mt	22 360	10 777	20 020	34 650	25 200	39 580	16 780	17 000
Sugar Beets	Mt	2 174 413	2 965 595	2 783 188	3 167 891	2 773 895	3 028 651	2 985 900	3 401 700
Sugar Cane	Mt	430 033	1 009 877	1 283 120	1 369 370	1 318 400	1 324 010	938 500	947 200
Cattle Meat	Mt	168 333	248 868	235 000	261 000	265 000	284 000	280 000	260 000
Chicken Meat	Mt	54 693	142 880	230 000	260 000	250 000	255 000	280 000	280 000
Cow Milk, Whole, Fresh	Mt	753 333	929 000	1 050 600	1 163 900	1 184 500	1 133 000	1 331 100	1 250 000
Hen Eggs	Mt	72 900	170 800	180 000	245 000	235 000	235 000	235 000	230 000

## Tunisia – Production

Product	Unit	1979-1981	1989-1991	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	Mt	17 367	41 933	82 500	97 000	108 000	108 000	100 000	100 000
Avocados	Mt	0	0	0	0	230	230	230	230
Cantaloupes&oth Melons	Mt	81 667	75 667	84 000	115 000	115 000	115 000	120 000	120 000
Dates	Mt	51 367	77 000	103 000	103 000	105 000	105 000	110 000	115 000
Grapefruit and Pomelos	Mt	23 233	50 867	50 000	50 000	50 000	66 000	72 000	72 000
Grapes	Mt	123 000	85 387	105 000	130 000	143 000	121 000	113 500	115 000
Hazelnuts (Filberts)	Mt	0	28	40	40	40	40	40	40
Lemons and Limes	Mt	20 167	16 300	14 700	17 000	18 300	22 800	24 500	25 000
Olives	Mt	520 667	933 333	950 000	1 125 000	550 000	150 000	500 000	500 000
Oranges	Mt	113 067	128 167	121 500	104 500	115 000	110 000	106 000	106 000
Strawberries	Mt	0	117	8 000	8 000	10 000	6 000	7 500	7 500
Tang.Mand.Clement.Satsma	Mt	31 467	45 700	40 200	38 000	37 200	41 500	41 600	42 000
<b>VEGETABLES</b>									
Beans, Dry	Mt	0	900	540	540	550	375	104	104
Chick-Peas	Mt	29 000	20 470	12 300	9 100	7 900	7 145	5 930	5 930
Chillies&Peppers, Green	Mt	123 000	155 000	189 000	185 000	190 000	214 000	206 000	206 000
Lentils	Mt	967	1 823	700	700	700	700	340	340
Onions, Dry	Mt	20 633	58 600	143 000	127 000	133 000	120 000	120 000	120 000
Onions+Shallots, Green	Mt	43 333	86 767	127 000	113 000	122 000	139 000	135 000	140 000
Potatoes	Mt	126 667	205 333	295 000	320 000	290 000	330 000	310 000	345 000
Tomatoes	Mt	313 333	516 667	663 000	930 000	950 000	750 000	810 000	800 000
<b>OTHER MAIN COMMODITIES</b>									
Wheat	Mt	837 333	1 109 367	1 353 520	1 390 000	842 000	1 118 000	422 200	1 150 000
Barley	Mt	278 600	466 033	302 800	420 000	241 000	233 000	90 200	345 000
Sugar Beets	Mt	62 333	248 000	142 600	89 358	20 700	0	0	0
Cattle Meat	Mt	50 190	78 600	103 500	110 400	113 800	118 600	105 000	110 000
Chicken and Turkey Meat	Mt	39 500	52 075	93 250	102 500	112 750	117 850	118 100	118 500
Cow Milk, Whole, Fresh	Mt	216 457	401 033	740 000	817 000	870 000	921 000	960 000	960 000
Hen Eggs	Mt	36 383	52 250	79 000	85 000	82 000	81 000	83 000	83 000

## Turkey - Production

Product	Unit	1979-1981	1989-1991	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	Mt	1 410 000	1 883 333	2 450 000	2 500 000	2 400 000	2 450 000	2 200 000	2 200 000
Avocados	Mt	0	100	270	285	300	350	350	350
Cantaloupes&oth Melons	Mt	1 566 667	1 676 667	1 800 000	1 865 000	1 905 000	1 915 000	1 900 000	1 900 000
Cherries	Mt	94 333	142 333	195 000	250 000	230 000	250 000	250 000	250 000
Dates	Mt	3 600	9 333	9 300	9 400	9 200	9 200	9 200	9 200
Grapefruit and Pomelos	Mt	18 333	34 333	100 000	140 000	130 000	135 000	140 000	140 000
Grapes	Mt	3 600 000	3 510 000	3 600 000	3 400 000	3 600 000	3 250 000	3 650 000	3 850 000
Hazelnuts (Filberts)	Mt	300 000	413 333	580 000	530 000	470 000	625 000	600 000	600 000
Lemons and Limes	Mt	284 333	373 667	390 000	520 000	460 000	510 000	400 000	400 000
Olives	Mt	726 667	746 667	1 650 000	580 809	1 800 000	600 000	1 800 000	1 800 000
Oranges	Mt	678 000	768 333	970 000	1 100 000	1 070 000	1 250 000	1 160 000	1 160 000
Strawberries	Mt	22 667	50 667	120 000	129 000	130 000	117 000	120 000	120 000
Tang.Mand.Clement.Satsma	Mt	165 667	357 000	480 000	500 000	560 000	580 000	450 000	450 000
<b>VEGETABLES</b>									
Beans, Dry	Mt	163 333	205 667	236 000	237 000	230 000	225 000	250 000	245 000
Chick-Peas	Mt	245 000	799 333	625 000	560 000	548 000	535 000	650 000	630 000
Chillies&Peppers, Green	Mt	575 000	891 000	1 400 000	1 462 000	1 480 000	1 560 000	1 500 000	1 500 000
Lentils	Mt	219 333	668 667	540 000	380 000	353 000	520 000	565 000	545 000
Onions, Dry	Mt	1 016 667	1 503 333	2 270 000	2 500 000	2 200 000	2 150 000	2 050 000	2 050 000
Onions+Shallots, Green	Mt	140 000	185 333	210 000	218 000	228 000	225 000	235 000	235 000
Potatoes	Mt	2 956 667	4 320 000	5 250 000	6 000 000	5 370 000	5 000 000	5 200 000	5 250 000
String Beans	Mt	63 667	31 333	39 000	40 000	41 000	41 000	43 000	43 000
Tomatoes	Mt	3 550 000	5 983 333	8 290 000	8 956 000	8 890 000	8 425 000	9 000 000	9 000 000
<b>OTHER MAIN PRODUCTS</b>									
Wheat	Mt	17 057 670		21 011 000	18 008 800	21 008 600	19 007 000	19 500 000	19 000 000
Barley	Mt	5 480 000	6 533 333	9 000 000	7 700 000	8 000 000	7 500 000	8 300 000	8 000 000
Maize	Mt	1 263 333	2 093 333	2 300 000	2 297 000	2 300 000	2 200 000	2 100 000	2 200 000
Rice, Paddy	Mt	314 433	253 333	315 000	340 000	350 000	360 000	360 000	370 000
Sugar Beets	Mt	8 896 948	13 462 913	22 282 500	17 102 300	18 821 000	12 632 520	16 395 640	13 355 000
Cattle Meat	Mt	404 121	671 771	680 762	667 877	679 683	636 884	679 200	672 100
Chicken and Turkey Meat	Mt	245 996	401 945	502 600	608 854	655 236	626 326	622 200	622 200
Milk (cow and buffalo)	Mt	8 021 317	8 358 132	8 912 000	9 041 000	8 799 371	8 552 409	8 552 409	8 552 409
Hen Eggs	Mt	217 164	369 080	721 124	704 500	675 400	528 750	530 000	530 000





## Yields

### Egypt - Yields

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	hg/ha	79 117	77 850	172 190	154 521	171 962	173 032	168 458	168 458
Cantaloupes&oth Melons	hg/ha	211 013	197 435	212 464	241 758	239 437	231 451	232 432	232 432
Dates	hg/ha	207 121	233 522	289 588	321 317	347 357	377 879	377 966	377 966
Grapefruit and Pomelos	hg/ha	67 328	181 022	113 776	136 667	133 244	144 742	144 186	144 186
Grapes	hg/ha	117 618	143 664	183 565	170 126	179 888	173 027	171 868	171 868
Lemons and Limes	hg/ha	95 137	196 912	178 943	180 804	179 554	187 037	181 904	181 904
Olives	hg/ha	26 556	41 779	80 000	65 740	61 904	61 850	63 811	63 811
Oranges	hg/ha	141 202	178 010	171 556	175 319	183 631	202 889	190 192	190 192
Strawberries	hg/ha	35 262	156 554	215 757	236 389	262 596	252 359	251 852	251 852
Tang.Mand.Clement.Satsma	hg/ha	120 000	124 588	128 343	150 516	137 481	157 604	139 509	139 509
<b>VEGETABLES</b>									
Beans, Dry	hg/ha	20 346	24 708	25 389	28 284	29 241	27 931	27 333	27 333
Chick-Peas	hg/ha	15 380	18 510	17 896	17 304	18 146	18 483	18 516	18 516
Chillies&Peppers, Green	hg/ha	164 044	165 114	154 511	140 248	153 242	149 496	148 846	148 846
Lentils	hg/ha	10 041	19 217	17 074	17 451	16 745	16 788	17 031	17 031
Onions, Dry	hg/ha	346 977	482 493	238 317	255 931	266 771	277 001	273 913	273 913
Tomatoes	hg/ha	177 474	256 984	324 598	331 225	347 191	350 193	350 829	350 829
Potatoes	hg/ha	173 994	210 691	223 302	232 916	235 931	238 739	237 500	237 500

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>OTHER MAIN COMMODITIES</b>									
Wheat	hg/ha	31 918	49 849	59 896	63 467	63 422	63 580	60 055	61 500
Barley	hg/ha	26 882	24 378	24 670	20 146	20 327	30 391	30 538	30 538
Maize	hg/ha	39 474	56 853	72 257	75 174	76 800	78 374	76 471	77 108
Rice, Paddy	hg/ha	57 073	70 681	86 401	88 780	91 024	92 833	91 411	94 309
Sugar Beets	hg/ha	283 568	448 568	447 502	474 440	507 223	476 829	490 284	500 000
Sugar Cane	hg/ha	829 963	1 003 076	1 172 000	1 181 682	1 172 162	1 188 129	1 136 364	909 091
Cattle Meat	Carcass Wt (Hg/An)	955	973	1 255	1 242	1 245	1 244	1 244	1 251
<i>Beef and Veal</i>	<i>Carcass Wt (Hg/An)</i>	<i>1 325</i>	<i>1 345</i>	<i>1 767</i>	<i>1 724</i>	<i>1 729</i>	<i>1 730</i>	<i>1 731</i>	<i>1 752</i>
<i>Buffalo Meat</i>	<i>Carcass Wt (Hg/An)</i>	<i>1 281</i>	<i>1 329</i>	<i>1 752</i>	<i>1 753</i>	<i>1 756</i>	<i>1 751</i>	<i>1 751</i>	<i>1 751</i>
<i>Mutton and Lamb</i>	<i>Carcass Wt (Hg/An)</i>	<i>257</i>	<i>244</i>	<i>245</i>	<i>250</i>	<i>250</i>	<i>250</i>	<i>250</i>	<i>250</i>
Chicken and Turkey Meat	Carcass Wt (.1Gr/A)	29 309	30 366	32 188	32 500	32 500	32 500	32 500	32 500
<i>Turkey Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>
<i>Chicken Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>8 617</i>	<i>10 732</i>	<i>14 375</i>	<i>15 000</i>	<i>15 000</i>	<i>15 000</i>	<i>15 000</i>	<i>15 000</i>
Milk (cow and buffalo)	Yield (Hg/An)	9 116	9 316	12 122	12 666	12 671	12 694	12 638	12 638
<i>Buffalo Milk</i>	<i>Yield (Hg/An)</i>	<i>11 494</i>	<i>9 731</i>	<i>13 400</i>	<i>13 400</i>	<i>13 400</i>	<i>13 400</i>	<i>13 400</i>	<i>13 400</i>
<i>Cow Milk, Whole, Fresh</i>	<i>Yield (Hg/An)</i>	<i>6 738</i>	<i>8 900</i>	<i>10 843</i>	<i>11 931</i>	<i>11 941</i>	<i>11 987</i>	<i>11 875</i>	<i>11 875</i>
Hen Eggs	Yield (100 Mg)	66 489	68 851	113 319	102 194	113 985	125 051	125 000	125 000

## Israel - Yields

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	hg/ha	403 905	283 882	239 326	213 244	169 142	153 443	158 333	163 333
Avocados	hg/ha	62 144	48 089	110 579	94 939	139 912	150 461	96 491	101 754
Cantaloupes&oth Melons	hg/ha	52 254	135 299	288 571	224 316	194 525	184 726	177 143	177 143
Cherries	hg/ha	86 167	84 976	77 720	99 057	54 706	79 778	81 481	81 481
Dates	hg/ha	115 262	106 647	65 183	83 782	88 078	83 300	83 636	83 636
Grapefruit and Pomelos	hg/ha	554 323	543 923	524 271	622 408	535 279	602 439	485 714	500 000
Grapes	hg/ha	143 550	183 761	163 892	140 902	180 947	197 562	190 000	187 097
Lemons and Limes	hg/ha	279 389	312 325	198 095	174 783	182 843	128 400	181 818	180 000
Oranges	hg/ha	378 986	384 205	337 868	234 204	338 817	376 756	366 667	338 983
Olives	hg/ha	24 662	20 540	20 215	14 500	32 941	15 294	31 111	30 270
Strawberries	hg/ha	229 930	632 593	415 550	392 405	419 617	443 625	425 000	425 000
Tang.Mand.Clement.Satsma	hg/ha	239 429	324 034	186 947	134 316	142 947	95 789	105 263	105 263
<b>VEGETABLES</b>									
Chick-Peas	hg/ha	13 022	16 664	16 972	18 092	21 417	19 800	20 656	20 366
Chillies&Peppers, Green	hg/ha	316 232	346 425	470 858	455 476	429 031	499 850	505 000	505 000
Lentils	hg/ha	3 255	3 667	5 000	5 000	3 000	3 000	3 000	3 000
Onions, Dry	hg/ha	170 614	339 140	302 553	290 672	311 281	263 180	253 125	253 125
Onions+Shallots, Green	hg/ha	196 296	322 610	318 182	320 000	326 087	352 174	352 174	352 174
Potatoes	hg/ha	365 368	322 774	387 151	342 674	344 348	330 265	328 313	329 167
Tomatoes	hg/ha	498 606	694 788	986 200	1 031 598	936 457	1 391 366	1 248 227	1 200 000

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>OTHER MAIN COMMODITIES</b>									
Wheat	hg/ha	20 731	25 110	18 077	4 564	14 965	21 596	23 411	22 667
Barley	hg/ha	7 291	4 178	3 285	4 645	11 324	9 000	23 600	10 000
Maize	hg/ha	44 764	141 401	147 069	140 757	133 800	121 680	116 000	120 000
Sugar Beets	hg/ha								
Cattle Meat	Carcass Wt (Hg/An)	1 169	1 761	1 852	1 858	2 182	2 126	2 320	1 997
<i>Beef and Veal</i>	<i>Carcass Wt (Hg/An)</i>	<i>2 154</i>	<i>3 331</i>	<i>3 504</i>	<i>3 515</i>	<i>4 163</i>	<i>4 051</i>	<i>4 439</i>	<i>3 793</i>
<i>Mutton and Lamb</i>	<i>Carcass Wt (Hg/An)</i>	<i>184</i>	<i>190</i>	<i>200</i>	<i>200</i>	<i>200</i>	<i>200</i>	<i>200</i>	<i>200</i>
Chicken and Turkey Meat	Carcass Wt (.1Gr/A)	20 061	37 777	37 731	37 581	56 861	53 556	52 951	53 792
<i>Chicken Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>10 396</i>	<i>10 508</i>	<i>10 498</i>	<i>10 500</i>	<i>14 136</i>	<i>16 373</i>	<i>16 615</i>	<i>16 154</i>
<i>Turkey Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>29 725</i>	<i>65 046</i>	<i>64 964</i>	<i>64 662</i>	<i>99 586</i>	<i>90 738</i>	<i>89 286</i>	<i>91 429</i>
Cow Milk, Whole, Fresh	Yield (Hg/An)	68 166	87 828	98 125	95 520	94 883	102 486	101 050	108 333
Hen Eggs	Yield (100 Mg)	106 540	143 696	139 103	127 677	117 828	137 018	140 000	141 270

## Morocco – Yields

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	hg/ha	0	130 619	109 119	108 103	107 915	79 650	144 942	144 942
Avocados	hg/ha	0	89 933	91 667	104 839	102 362	105 426	103 846	103 846
Cantaloupes&oth Melons	hg/ha	114 335	157 899	193 351	216 143	185 759	196 187	190	190
Dates	hg/ha	24 850	50 089	19 231	16 417	16 742	7 330	7 019	7 019
Grapefruit and Pomelos	hg/ha		116 667	400 000	100 000	200 000	100 000	200 000	200 000
Grapes	hg/ha	44 544	50 566	55 746	70 469	53 404	39 979	66 205	60 066
Lemons and Limes	hg/ha		117 778	210 000	90 000	140 000	60 000	114 000	200 000
Cherries	hg/ha		45 111	51 429	54 453	49 231	34 351	25 000	25 000
Olives	hg/ha	8 744	14 723	13 626	9 149	7 407	7 636	8 545	8 545
Oranges	hg/ha		184 275	215 166	170 939	169 922	141 036	144 331	148 980
Strawberries	hg/ha		81 100	400 000	394 576	434 783	351 562	351 562	351 562
Tang.Mand.Clement.Satsma	hg/ha		177 222	203 700	180 426	221 250	109 583	163 589	195 238
<b>VEGETABLES</b>									
Lentils	hg/ha	3 472	6 812	4 335	3 064	647	3 076	6 820	6 820
Beans, Dry	hg/ha	6 942	6 118	6 471	4 007	5 199	5 217	5 217	5 217
Chick-Peas	hg/ha	6 327	7 520	8 309	3 964	2 278	5 481	7 170	7 170
Chillies&Peppers, Green	hg/ha	148 611	145 429	237 151	251 153	242 653	280 973	273 221	283 019
Onions, Dry	hg/ha	119 913	194 938	214 943	189 985	140 971	180 084	210 333	210 333
Onions+Shallots, Green	hg/ha	170 183	131 879	142 857	150 000	150 000	145 455	145 455	145 455
Potatoes	hg/ha	141 667	170 287	190 427	183 361	150 529	187 740	231 985	208 623
String Beans	hg/ha		50 000	50 000	50 000	50 000	50 000	50 095	50 095
Tomatoes	hg/ha	406 571	345 027	474 198	457 377	448 077	489 444	519 675	519 675

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
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**OTHER MAIN COMMODITIES**

Wheat	hg/ha	8 940	15 641	14 184	8 004	4 758	12 280	12 793	17 156
Barley	hg/ha	7 850	11 717	8 120	7 121	2 074	5 434	8 335	11 393
Maize	hg/ha	6 024	10 077	6 468	4 120	4 000	2 107	7 494	7 460
Rice, Paddy	hg/ha	39 369	47 719	54 108	45 000	45 000	52 773	32 902	33 333
Sugar Beets	hg/ha	357 248	452 906	569 159	521 893	512 735	573 608	502 677	572 677
Sugar Cane	hg/ha	835 634	675 151	798 258	763 305	757 701	739 670	670 357	676 571
Cattle meat	Carcass Wt (Hg/An)	786	946	987	1 062	971	1 084	1 125	1 070
<i>Beef and Veal</i>	<i>Carcass Wt (Hg/An)</i>	<i>1 443</i>	<i>1 710</i>	<i>1 788</i>	<i>1 929</i>	<i>1 750</i>	<i>1 975</i>	<i>2 073</i>	<i>1 975</i>
<i>Mutton and Lamb</i>	<i>Carcass Wt (Hg/An)</i>	<i>130</i>	<i>181</i>	<i>185</i>	<i>195</i>	<i>192</i>	<i>192</i>	<i>177</i>	<i>164</i>
Chicken Meat	Carcass Wt (.1Gr/A)	8 000	8 000	9 705	8 228	8 065	8 095	8 889	8 889
Cow Milk, Whole, Fresh	Yield (Hg/An)	6 399	5 211	8 082	9 259	9 056	9 064	9 180	8 929
Hen Eggs	Yield (100 Mg)	67 791	60 000	54 545	54 444	54 651	54 651	58 750	57 500

## Tunisia – Yields

Unit		1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	hg/ha	43 219	43 080	31 731	37 308	42 089	41 909	38 462	38 462
Avocados	hg/ha	0	0	0	0	92 000	92 000	92 000	92 000
Cantaloupes&oth Melons	hg/ha	41 226	97 036	105	14 375	138 889	138 554	142 857	142 857
Dates	hg/ha	28 609	36 719	34 333	33 226	33 217	26 263	27 500	28 750
Grapefruit and Pomelos	hg/ha		193 126	185 185	185 185	185 185	220 000	225 000	225 000
Grapes	hg/ha	36 100	28 753	41 256	48 689	53 227	36 468	42 037	42 593
Lemons and Limes	hg/ha		135 833	147 000	141 667	140 769	142 500	136 111	138 889
Olives	hg/ha	3 908	6 746	7 132	7 500	3 965	1 089	3 629	3 333
Tang.Mand.Clement.Satsma	hg/ha		95 208	82 041	77 551	75 918	84 694	84 898	85 714
Oranges	hg/ha		217 232	135 000	116 111	127 778	122 222	117 778	117 778
Strawberries	hg/ha		188 889	200 000	200 000	200 000	184 615	214 286	214 286
<b>VEGETABLES</b>									
Tomatoes	hg/ha	178 134	246 046	226 280	349 624	381 526	344 037	366 516	363 636
Lentils	hg/ha	6 016	4 471	3 500	3 500	3 500	3 500	3 505	3 505
Chick-Peas	hg/ha	4 406	5 885	7 235	6 500	5 792	5 979	7 808	7 808
Chillies&Peppers, Green	hg/ha	69 309	87 515	90 000	93 909	112 426	130 488	133 766	133 766
Beans, Dry	hg/ha	0	5 513	5 400	5 400	5 500	6 250	8 320	8 320
Onions, Dry	hg/ha	90 002	97 148	160 674	142 697	156 655	182 094	141 176	141 176
Onions+Shallots, Green	hg/ha	120 881	173 765	211 667	205 455	226 766	231 667	225 000	233 333
Potatoes	hg/ha	129 050	125 922	137 850	164 103	140 097	157 143	140 399	138 000



Unit		1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>OTHER MAIN COMMODITIES</b>									
Wheat	hg/ha	9 709	12 422	14 248	14 184	11 727	20 000	14 144	38 526
Barley	hg/ha	6 258	9 095	11 646	9 013	6 478	11 709	9 204	35 204
Sugar Beets	hg/ha	306 136	499 438	470 938	418 735	426 804	0	0	0
Cattle meat	Carcass Wt (Hg/An)	700	1 097	1 113	1 154	1 154	1 205	1 102	1 196
<i>Beef and Veal</i>	<i>Carcass Wt (Hg/An)</i>	<i>1 290</i>	<i>2 071</i>	<i>2 094</i>	<i>2 170</i>	<i>2 175</i>	<i>2 269</i>	<i>2 075</i>	<i>2 264</i>
<i>Mutton and Lamb</i>	<i>Carcass Wt (Hg/An)</i>	<i>109</i>	<i>123</i>	<i>132</i>	<i>137</i>	<i>132</i>	<i>140</i>	<i>128</i>	<i>128</i>
Chicken and Turkey Meat	Carcass Wt (.1Gr/A)	31 000	30 818	31 466	31 653	31 493	32 000	31 985	32 015
<i>Turkey Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>	<i>50 000</i>
<i>Chicken Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	<i>12 000</i>	<i>11 637</i>	<i>12 931</i>	<i>13 306</i>	<i>12 985</i>	<i>14 000</i>	<i>13 970</i>	<i>14 030</i>
Cow Milk, Whole, Fresh	Yield (Hg/An)	8 784	14 491	16 087	16 020	15 818	16 158	16 271	16 271
Hen Eggs	Yield (100 Mg)	25 073	25 686	25 079	25 000	24 848	24 923	25 152	25 152

## Turkey – Yields

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>FRESH FRUITS</b>									
Apples	hg/ha	155 056	179 285	230 133	234 025	223 048	226 031	202 578	202 578
Avocados	hg/ha		40 000	38 571	40 714	40 000	35 000	35 000	35 000
Cantaloupes&oth Melons	hg/ha	207 827	118 526	163 636	169 545	165 652	166 522	163 793	163 793
Cherries	hg/ha	69 144	87 040	85 485	104 998	92 705	98 518	100 000	100 000
Dates	hg/ha	39 264	32 915	24 156	24 416	26 744	26 744	26 744	26 744
Grapefruit and Pomelos	hg/ha	257 530	335 297	346 500	453 074	402 477	455 466	420 420	420 420
Grapes	hg/ha	43 776	59 744	66 543	63 551	67 290	61 905	68 224	68 142
Hazelnuts (Filberts)	hg/ha	10 074	13 300	17 465	15 678	13 703	18 092	17 699	17 699
Lemons and Limes	hg/ha	261 832	251 862	230 797	301 187	258 689	285 458	224 719	224 719
Olives	hg/ha	14 710	13 895	28 858	10 009	30 299	10 010	30 303	30 303
Oranges	hg/ha	233 461	234 538	257 780	287 868	275 100	318 107	297 436	297 436
Tang.Mand.Clement.Satsma	hg/ha	123 863	156 641	183 206	187 056	202 744	202 996	163 043	163 043
Strawberries	hg/ha	45 333	94 193	130 435	137 234	137 348	120 619	126 316	126 316
<b>VEGETABLES</b>									
Beans, Dry	hg/ha	14 949	11 753	13 721	13 621	13 068	12 857	13 021	12 827
Chick-Peas	hg/ha	11 486	9 384	9 398	8 960	8 616	8 295	9 701	9 692
Chillies&Peppers, Green	hg/ha	128 500	182 417	200 000	200 274	197 333	208 000	200 000	200 000
Lentils	hg/ha	10 619	7 790	9 836	7 350	7 479	11 064	11 300	10 900
String Beans	hg/ha	71 969	70 507	72 222	72 727	73 214	70 690	72 881	72 881
Tomatoes	hg/ha	329 412	376 408	414 500	407 091	395 111	374 444	400 000	400 000
Onions, Dry	hg/ha	142 468	179 266	216 190	221 239	220 000	216 080	219 957	219 957
Onions+Shallots, Green	hg/ha	77 778	96 610	105 000	109 000	103 636	102 273	106 818	106 818
Potatoes	hg/ha	166 808	224 044	258 621	272 727	261 951	250 000	260 000	262 500

Product	Unit	1979-81	1989-91	1998	1999	2000	2001	2002	2003
<b>OTHER MAIN COMMODITIES</b>									
Wheat	hg/ha	18 524	20 027	22 352	19 199	22 350	20 328	20 745	20 213
Maize	hg/ha	21 679	40 862	41 818	44 344	41 441	40 000	38 182	38 261
Barley	hg/ha	19 244	19 383	24 000	21 096	22 045	20 604	23 380	23 188
Rice, Paddy	hg/ha	47 063	49 710	52 500	52 308	60 345	61 017	51 429	52 857
Sugar Beets	hg/ha	298 640	359 636	441 681	404 086	459 023	352 113	443 126	425 318
Cattle Meat (Sheep and Buffalo)	Carcass Wt (Hg/An)	593	937	1 184	1 252	1 177	1 264	1 189	1 189
<i>Mutton and Lamb</i>	<i>Carcass Wt (Hg/An)</i>	129	157	157	158	158	158	158	158
<i>Beef and Veal</i>	<i>Carcass Wt (Hg/An)</i>	575	1 258	1 632	1 743	1 687	1 799	1 552	1 588
<i>Buffalo Meat</i>	<i>Carcass Wt (Hg/An)</i>	1 076	1 394	1 764	1 856	1 686	1 835	1 857	1 821
Chicken and Turkey Meat	Carcass Wt (.1Gr/A)	16 000	16 000	16 000	16 000	16 000	16 000	16 000	16 000
<i>Chicken Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000
<i>Turkey Meat</i>	<i>Carcass Wt (.1Gr/A)</i>	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000
Milk (cow and buffalo)	Yield (Hg/An)	10 633	11 416	12 757	12 784	13 107	13 191	13 191	13 191
<i>Buffalo Milk</i>	<i>Yield (Hg/An)</i>	8 266	9 317	9 424	9 378	9 674	9 690	9 690	9 690
<i>Cow Milk, Whole, Fresh</i>	<i>Yield (Hg/An)</i>	13 000	13 516	16 090	16 190	16 539	16 692	16 692	16 692
Hen Eggs	Yield (100 Mg)	73 953	74 782	103 428	98 004	104 375	94 969	94 643	94 643

## Trade

### Egypt – trade

<b>Top 20 exports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Cotton Lint	(1000\$)	423 413	186 092	158 173	238 160	132 272	186 003	<b>329 698</b>
Milled Paddy Rice		32 861	16 261	134 396	87 499	112 227	132 908	<b>103 348</b>
Potatoes		32 501	22 426	43 224	46 034	27 390	29 750	<b>42 617</b>
Molasses		13 396	6 680	4 804	6 149	17 239	19 824	<b>30 013</b>
Oranges		38 940	49 088	60 787	16 421	16 556	50 622	<b>26 541</b>
Onions, Dry		11 646	12 850	18 802	9 492	12 367	14 212	<b>23 557</b>
Onions		11 646	12 850	18 802	9 492	12 367	14 212	<b>23 557</b>
Vegetables Dehydrated		9 039	8 108	16 868	17 123	15 146	13 205	<b>17 551</b>
Vegetables Frozen		777	3 622	10 200	11 856	7 855	8 718	<b>11 000</b>
Beans, Dry		0	1 211	2 740	2 015	19 893	8 925	<b>10 493</b>
Tea		0	41	1 943	1 375	4 889	5 427	<b>8 821</b>
Essential Oils nes		0	2 661	6 658	6 473	9 418	9 083	<b>8 464</b>
Flax Fibre and Tow		6 739	3 378	3 747	3 747	6 259	7 282	<b>8 099</b>
Cheese (Whole Cow Milk)		13	3 279	3 264	9 702	3 176	2 129	<b>7 787</b>
Oils Hydrogenated		0	0	5 352	26 706	19 871	12 021	<b>7 722</b>
Sugar (Centrifugal, Raw)		0	288	540	4	0	5 746	<b>7 072</b>
Vegetables Prepared nes		436	848	369	1 452	1 947	3 583	<b>6 632</b>
Mango Juice		0	1 801	1 362	2 068	2 809	3 007	<b>5 861</b>
Anise, Badian, Fennel		3 385	6 461	5 520	4 545	9 638	5 423	<b>5 562</b>
Flax Fibre Raw		0	121	157	935	1 844	2 202	<b>4 917</b>

<b>Top 20 imports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Wheat	(1000\$)	839 000	853 000	816 170	605 810	713 210	666 668	<b>815 563</b>
Maize		102 485	249 000	379 420	643 900	541 570	553 088	<b>591 568</b>
Beef and Veal		84 268	144 110	1 908	7 016	368 000	273 000	<b>250 000</b>
Cake of Soya Beans		10 426	65 310	154 812	141 869	194 570	210 330	<b>215 597</b>
Beef and Veal,Boneless		0	0	179 891	215 632	237 062	126 922	<b>189 762</b>
Tobacco Leaves		70 603	90 028	148 961	161 373	174 983	166 776	<b>169 326</b>
Tea		47 166	137 485	99 635	98 415	112 689	99 823	<b>141 177</b>
Broad Beans, Dry		0	179	16 000	71 055	53 975	74 649	<b>79 523</b>
Oil of Soya Beans		26 900	32	67 934	85 003	81 184	70 992	<b>77 382</b>
Soybeans		749	4 006	31 911	21 945	52 821	79 258	<b>71 291</b>
Sugar Refined		239 000	217 512	209 000	210 000	11 027	60 307	<b>65 892</b>
Butter		60 018	112 297	76 816	104 374	93 981	66 724	<b>65 801</b>
Lentils		7 174	40 664	51 266	50 274	42 674	50 056	<b>64 683</b>
Oil of Palm		1 814	135 000	189 926	121 000	102 395	50 782	<b>63 353</b>
Meat Meal		738	9 555	34 435	24 414	33 870	46 918	<b>56 150</b>
Tobacco Products nes		233	0	71 438	74 684	92 516	70 219	<b>49 354</b>
Sugar (Centrifugal, Raw)		0	98 165	80 500	63 500	57 200	51 459	<b>47 172</b>
Butter of Cow Milk		60 018	55 371	60 390	76 360	66 000	37 573	<b>44 674</b>
Sesame Seed		7 096	21 012	33 031	36 821	50 302	56 930	<b>41 118</b>
Offals Edibl Fresh		19 500	39 273	30 086	47 123	52 636	30 248	<b>34 277</b>

## Israel – Trade

Top 20 exports	Unit	1980	1990	1998	1999	2000	2001	2002
Avocados	(1000\$)	28 115	49 952	29 921	36 539	42 256	37 060	<b>42 703</b>
Chillies&Peppers, Green		9 987	9 166	27 844	30 481	40 326	46 106	<b>38 306</b>
Vegetables Fresh nes		7 035	12 248	34 481	32 345	33 523	35 679	<b>36 790</b>
Fruit Prepared nes		34 758	108 653	48 511	44 791	47 206	41 265	<b>34 603</b>
Potatoes		274	15 822	25 386	36 916	21 264	33 494	<b>29 456</b>
Cotton Lint		99 698	86 393	67 869	50 011	54 757	25 686	<b>27 970</b>
Tomatoes		2 018	18 230	26 970	22 709	25 398	28 972	<b>27 819</b>
Grapefruit and Pomelos		63 026	50 330	62 146	63 109	49 879	35 339	<b>26 283</b>
Meat Canned Chicken		6 186	15 675	13 960	15 370	30 051	30 342	<b>22 581</b>
Grapefruitjuice Sing-Str		11 162	14 411	12 192	15 557	17 470	19 322	<b>17 946</b>
Vegetables Dehydrated		4 689	9 242	25 127	16 026	15 759	15 124	<b>15 784</b>
Pastry		4 656	8 298	14 849	11 663	14 608	15 587	<b>15 779</b>
Oranges		151 786	102 857	58 847	48 950	26 600	29 411	<b>15 056</b>
Essential Oils nes		1 467	4 457	12 592	10 464	18 702	14 294	<b>14 913</b>
Grapefruitjuice Concentr		24 745	35 870	14 077	15 548	16 177	12 682	<b>14 348</b>
Persimmons		231	4 909	10 836	9 574	9 992	9 405	<b>13 424</b>
Groundnuts in Shell		9 441	9 408	15 093	12 908	11 535	13 828	<b>12 997</b>
Dates		2 598	11 456	7 087	6 714	6 055	6 317	<b>12 418</b>
Sunflower Seed		0	10 307	11 452	15 509	11 315	10 695	<b>11 003</b>
Tang.Mand.Clement.Satsma		0	21 628	25 202	18 844	15 062	12 621	<b>10 193</b>

<b>Top 20 exports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Avocados	(1000\$)	28 115	49 952	29 921	36 539	42 256	37 060	<b>42 703</b>
Chillies&Peppers, Green		9 987	9 166	27 844	30 481	40 326	46 106	<b>38 306</b>
Vegetables Fresh nes		7 035	12 248	34 481	32 345	33 523	35 679	<b>36 790</b>
Fruit Prepared nes		34 758	108 653	48 511	44 791	47 206	41 265	<b>34 603</b>
Potatoes		274	15 822	25 386	36 916	21 264	33 494	<b>29 456</b>
Cotton Lint		99 698	86 393	67 869	50 011	54 757	25 686	<b>27 970</b>
Tomatoes		2 018	18 230	26 970	22 709	25 398	28 972	<b>27 819</b>
Grapefruit and Pomelos		63 026	50 330	62 146	63 109	49 879	35 339	<b>26 283</b>
Meat Canned Chicken		6 186	15 675	13 960	15 370	30 051	30 342	<b>22 581</b>
Grapefruitjuice Sing-Str		11 162	14 411	12 192	15 557	17 470	19 322	<b>17 946</b>
Vegetables Dehydrated		4 689	9 242	25 127	16 026	15 759	15 124	<b>15 784</b>
Pastry		4 656	8 298	14 849	11 663	14 608	15 587	<b>15 779</b>
Oranges		151 786	102 857	58 847	48 950	26 600	29 411	<b>15 056</b>
Essential Oils nes		1 467	4 457	12 592	10 464	18 702	14 294	<b>14 913</b>
Grapefruitjuice Concentr		24 745	35 870	14 077	15 548	16 177	12 682	<b>14 348</b>
Persimmons		231	4 909	10 836	9 574	9 992	9 405	<b>13 424</b>
Groundnuts in Shell		9 441	9 408	15 093	12 908	11 535	13 828	<b>12 997</b>
Dates		2 598	11 456	7 087	6 714	6 055	6 317	<b>12 418</b>
Sunflower Seed		0	10 307	11 452	15 509	11 315	10 695	<b>11 003</b>
Tang.Mand.Clement.Satsma		0	21 628	25 202	18 844	15 062	12 621	<b>10 193</b>

## Morocco – trade

<b>Top 20 exports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Tang.Mand.Clement.Satsma	(1000\$)	93 734	46 549	123 027	141 752	91 797	98 168	<b>110 292</b>
Tomatoes		63 008	47 358	121 526	123 651	81 782	82 440	<b>100 393</b>
Oranges		200 994	122 818	146 355	124 658	100 812	85 909	<b>83 961</b>
Olives, Preserved		38 364	56 033	68 922	91 538	70 767	73 382	<b>76 337</b>
String Beans		0	0	7 401	9 523	16 436	22 966	<b>33 112</b>
Processed Cheese		0	0	16 594	19 083	19 421	24 397	<b>32 030</b>
Fruit Prepared nes		12 384	21 009	38 322	32 197	28 081	25 026	<b>31 689</b>
Flour of Wheat		0	1	17 299	9 465	13 410	28 060	<b>30 936</b>
Strawberries		37	386	12 529	13 744	19 528	17 986	<b>22 475</b>
Veg. in Temp Preservativ		13 950	16 242	14 704	17 169	17 644	19 237	<b>19 273</b>
Essential Oils nes		4 865	5 970	6 366	8 715	14 036	14 569	<b>17 694</b>
Food Prepared nes		1 769	5 300	7 632	8 187	8 568	12 070	<b>16 738</b>
Coffee Extracts		0	0	20 987	15 627	15 294	10 885	<b>14 908</b>
Cantaloupes&oth Melons		1 053	388	6 619	6 959	8 077	9 605	<b>13 586</b>
Potatoes		15 306	19 007	13 034	31 568	17 369	13 195	<b>12 562</b>
Carobs		5 010	5 458	14 610	23 115	9 828	8 463	<b>12 168</b>
Vegetables Pr by Vinegar		6 721	24 158	13 587	12 687	7 061	8 031	<b>11 282</b>
Chillies&Peppers, Green		2 071	913	4 038	5 103	4 878	6 501	<b>8 595</b>
Wine		7 458	4 074	6 304	5 717	5 746	5 606	<b>8 355</b>
Wine+Vermouth+Sim.		10 106	5 220	6 304	5 717	5 746	5 606	<b>8 355</b>



<b>Top 20 imports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Wheat	(1000\$)	319 445	171 209	388 463	389 458	516 601	547 577	<b>529 051</b>
Oil of Soya Beans		68 532	50 331	105 338	124 424	108 654	118 578	<b>142 399</b>
Sugar (Centrifugal, Raw)		130 082	80 940	153 237	131 147	135 285	133 967	<b>142 290</b>
Maize		19 280	19 932	94 628	88 854	108 159	116 715	<b>135 592</b>
Soybeans		7 143	372	45 384	50 072	48 710	47 974	<b>77 641</b>
Barley		2 214	1 855	61 729	73 877	104 883	98 550	<b>70 778</b>
Tobacco		33 477	43 736	64 236	64 073	57 849	64 911	<b>63 821</b>
Tea		38 869	71 022	78 077	72 504	69 687	59 395	<b>58 235</b>
Butter of Cow Milk		34 167	36 462	43 673	33 932	43 323	45 394	<b>48 698</b>
Butter		34 167	36 462	43 673	33 932	43 323	45 394	<b>48 698</b>
Cigarettes		13 410	29 955	44 505	42 343	44 109	47 129	<b>46 772</b>
Beet Pulp, Dry		18	0	19 354	38 445	37 423	37 281	<b>42 234</b>
Cotton Lint		18 582	64 504	55 636	38 416	44 642	48 927	<b>38 158</b>
Oilseed Cake Meal		598	48	12 627	17 621	22 751	15 140	<b>32 459</b>
Milk Dry		9 779	22 597	11 708	7 348	9 672	26 072	<b>25 159</b>
Dry Skim Cow Milk		2 730	18 126	11 331	6 886	9 491	25 845	<b>24 724</b>
Coffee, Green		29 897	22 525	49 344	41 002	37 274	23 029	<b>22 977</b>
Cake of Soya Beans		598	0	8 623	15 575	17 817	8 183	<b>22 917</b>
Food Prepared nes		5 960	10 224	11 364	12 265	12 293	14 401	<b>17 314</b>
Potatoes		8 798	18 011	14 281	15 449	12 944	14 040	<b>16 921</b>

## Tunisia – Trade

Top 20 exports	Unit	1980	1990	1998	1999	2000	2001	2002
Dates	(1000\$)	11 105	51 131	61 457	47 175	38 590	73 412	<b>68 621</b>
Oil of Olive		61 505	121 896	186 511	320 737	193 023	139 201	<b>39 268</b>
Oil of Maize		0	0	10 516	20 310	16 894	8 059	<b>30 383</b>
Tomato Paste		2	4 228	14 031	32 459	19 993	22 468	<b>26 463</b>
Flour of Wheat		0	6 570	20 228	17 089	27 452	20 036	<b>23 134</b>
Cigarettes		300	12 540	38 143	29 405	22 284	29 504	<b>21 576</b>
Macaroni		1 467	0	7 383	6 580	7 140	8 198	<b>14 614</b>
Beverages Non-Alcoholic		0	608	2 246	4 194	4 827	3 792	<b>12 264</b>
Food Wastes		0	41	384	494	1 291	7 199	<b>11 882</b>
Food Prepared nes		0	521	4 439	5 490	5 517	6 943	<b>11 390</b>
Maize		0	0	0	0	5 788	8 545	<b>9 396</b>
Pastry		0	1 551	5 463	5 610	5 743	6 221	<b>8 822</b>
Oranges		10 715	11 027	8 303	7 140	7 183	8 874	<b>8 402</b>
Beverages Dist Alcoholic		165	5 656	11 296	10 558	7 094	12 138	<b>8 297</b>
Food Prep.Flour,Malt Ext		0	0	7 857	8 893	9 157	8 257	<b>6 480</b>
Pimento, Allspice		4 192	4 157	3 645	5 307	4 302	5 111	<b>5 921</b>
Yogurt Concentr.Or Not		0	0	523	39	563	2 827	<b>5 714</b>
Flour of Cereals		25	1 982	10 246	6 779	3 812	1 628	<b>5 332</b>
Tobacco Products nes		311	3 239	6 402	6 349	4 646	4 846	<b>4 767</b>
Wine		7 692	4 884	5 295	5 736	5 355	6 045	<b>4 481</b>

<b>Top 20 imports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Wheat	(1000\$)	155 104	141 513	216 687	133 097	160 794	198 409	<b>264 683</b>
Maize		21 862	40 613	57 931	74 079	75 303	90 747	<b>102 522</b>
Barley		3 841	19 114	12 083	17 555	44 031	67 797	<b>87 309</b>
Oil of Soya Beans		41 733	40 268	96 953	71 861	48 979	32 187	<b>75 619</b>
Cake of Soya Beans		18 369	30 272	52 467	41 656	54 146	57 318	<b>70 962</b>
Sugar Refined		63 175	64 334	60 087	43 537	31 292	33 273	<b>53 647</b>
Cigarettes		10 307	17 083	32 183	25 898	23 044	25 273	<b>25 851</b>
Cotton Lint		20 486	50 178	39 888	22 338	35 722	38 283	<b>24 523</b>
Sugar (Centrifugal, Raw)		12 330	16 547	29 455	22 796	23 176	22 264	<b>24 286</b>
Food Prepared nes		5 318	6 208	17 834	18 691	14 312	23 593	<b>24 138</b>
Potatoes		5 446	9 608	21 870	10 604	11 895	13 181	<b>18 021</b>
Oil of Maize		0	19	7 610	13 941	10 542	7 633	<b>16 595</b>
Tobacco Leaves		7 054	10 905	30 998	19 621	14 524	22 143	<b>14 899</b>
Tea		13 014	17 838	21 910	18 322	18 315	19 806	<b>14 523</b>
Skin Dry-Salted Sheep		153	598	2 099	4 089	449	90	<b>12 710</b>
Coffee, Green		9 517	7 401	17 469	15 300	13 696	14 606	<b>10 457</b>
Bran of Wheat		0	1	2 031	1 733	3 913	8 608	<b>9 962</b>
Cheese (Whole Cow Milk)		3 451	997	3 319	3 793	5 455	7 342	<b>7 416</b>
Oil of Palm		0	356	6 284	7 343	3 466	5 292	<b>7 324</b>
Beverages Dist Alcoholic		684	3 497	2 624	3 412	3 092	3 343	<b>6 317</b>

## Turkey – Trade

<b>Top 20 exports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Hazelnuts Shelled	(1000\$)	388 868	455 528	578 057	442 720	366 737	486 086	<b>361 003</b>
Tobacco Leaves		233 742	418 491	520 480	478 624	368 363	354 315	<b>273 209</b>
Preprd Nuts(Excl.Grnuts)		37 426	58 746	196 611	180 875	169 350	184 526	<b>169 590</b>
Raisins		130 316	150 684	211 937	202 970	196 885	163 051	<b>153 024</b>
Pastry		3 757	21 767	141 475	84 527	85 793	98 025	<b>115 005</b>
Dry Apricots		24 147	71 927	119 190	126 169	110 379	88 106	<b>113 271</b>
Sugar Confectionery		1 446	20 899	135 138	91 434	92 777	99 831	<b>93 058</b>
Fruit Prepared nes		22 849	47 102	120 791	109 325	88 741	96 628	<b>91 806</b>
Cigarettes		1	23 601	54 582	68 039	96 315	72 863	<b>84 516</b>
Vegetables Pr by Vinegar		689	39 901	84 275	72 337	67 932	81 214	<b>79 436</b>
Lemons and Limes		62 113	51 262	58 001	103 783	67 704	74 996	<b>75 266</b>
Chocolate Products nes		3 495	5 849	71 267	59 218	63 152	68 802	<b>70 840</b>
Figs, Dried		38 745	62 387	71 168	70 278	68 038	66 216	<b>70 553</b>
Tomato Paste		13 024	111 924	134 145	123 963	92 499	74 933	<b>70 522</b>
Tomatoes		7 073	12 557	57 053	18 902	37 502	48 914	<b>67 836</b>
Tang.Mand.Clement.Satsma		12 706	49 762	49 719	61 269	49 634	71 652	<b>61 804</b>
Barley		26 232	2 556	117 151	21 205	20 108	16 189	<b>58 910</b>
Cherries		0	6 933	16 509	38 390	23 652	48 702	<b>49 276</b>
Chick-Peas		35 721	135 434	77 172	57 844	33 132	75 288	<b>48 101</b>
Lentils		53 290	124 096	88 219	56 839	57 526	85 282	<b>45 884</b>

<b>Top 20 imports</b>	<b>Unit</b>	<b>1980</b>	<b>1990</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Cotton Lint	(1000\$)	0	136 090	600 845	351 436	676 575	497 301	<b>492 620</b>
Skin With Wool Sheep		0	47 628	282 705	67 443	176 937	229 910	<b>376 199</b>
Wheat		0	386 900	232 102	185 897	126 143	49 621	<b>148 010</b>
Soybeans		0	1 817	78 466	74 464	82 939	67 387	<b>139 614</b>
Maize		0	67 684	97 514	98 176	146 887	65 635	<b>133 754</b>
Oil of Palm		986	59 136	109 295	81 643	74 755	80 555	<b>103 051</b>
Oilseed Cake Meal		0	25 871	92 718	108 189	147 288	90 913	<b>87 755</b>
Rice		2 534	66 578	96 455	97 605	108 215	57 683	<b>86 382</b>
Cake of Soya Beans		0	15 297	88 043	95 235	115 564	84 251	<b>78 913</b>
Oil of Soya Beans		66 684	58 068	101 247	86 101	61 244	56 213	<b>71 738</b>
Cocoa Beans		2 738	7 154	41 244	46 518	36 071	48 609	<b>68 877</b>
Rubber Natural Dry		30 604	38 084	65 178	41 505	59 639	48 960	<b>65 837</b>
Oil of Maize		0	13 946	47 252	54 119	45 869	39 196	<b>61 936</b>
Oil of Sunflower Seed		24 241	107 172	103 340	72 974	39 541	62 781	<b>51 732</b>
Rice, Paddy		0	4 440	9 390	43 775	59 591	24 437	<b>48 803</b>
Tallow		12 475	30 665	71 820	50 406	49 618	32 074	<b>47 237</b>
Tobacco Products nes		46	2 956	51 476	45 739	42 502	39 804	<b>45 745</b>
Sunflower Seed		0	2 539	178 518	119 485	103 324	42 707	<b>42 008</b>
Milled Paddy Rice		2 534	62 123	86 296	53 347	48 576	33 246	<b>37 114</b>
Sesame Seed		0	24 544	16 507	13 379	10 903	18 230	<b>33 512</b>