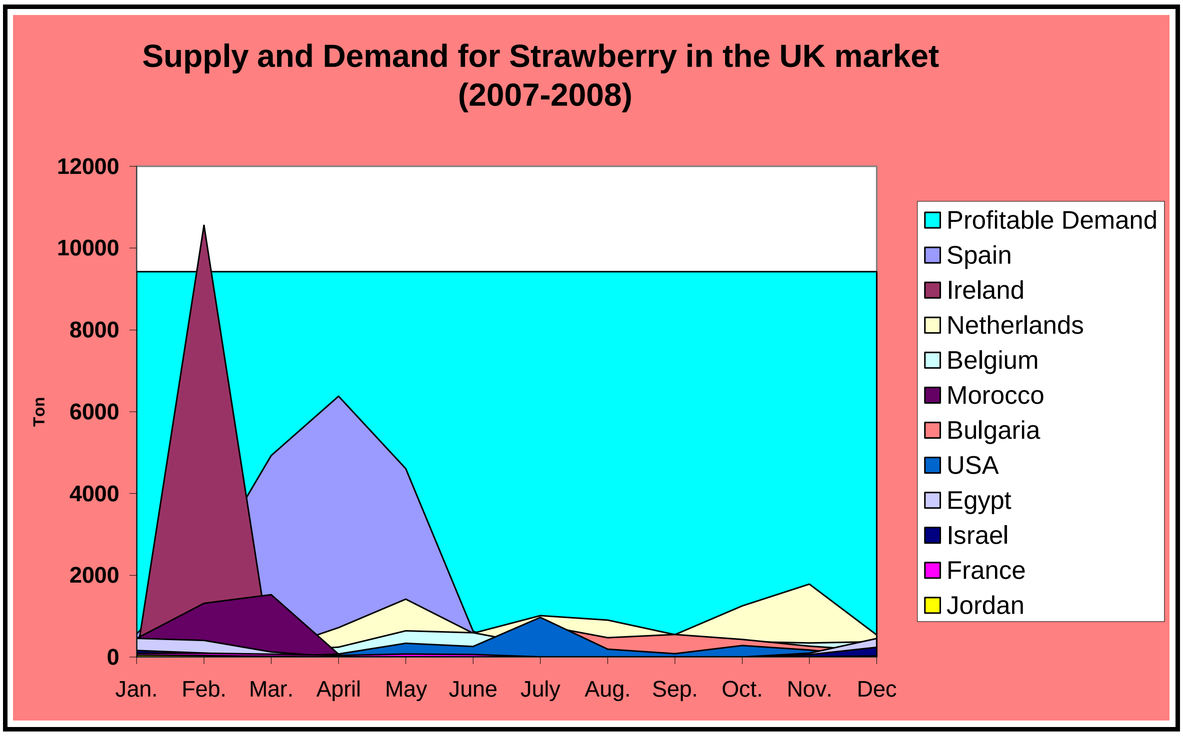
ASSESSMENT OF MOROCCAN BERRIES EXPORTS

(AN EXPORT MARKET ANALYSIS)



MOROCCO INTEGRATED AGRICULTURE AND AGRIBUSINESS PROGRAM

December 2008

This publication was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc.

ASSESSMENT OF MOROCCAN BERRIES EXPORTS

(AN EXPORT MARKET ANALYSIS)

MOROCCO INTEGRATED AGRICULTURE AND AGRIBUSINESS PROGRAM

Contract No. 608-M-00-05-00043-01
Submitted to USAID/Morocco Mission

CONTENTS

INTRODUCTION

Over the last few years, Morocco has worked hard to secure its reputation in many countries in the European Union as a reliable source of high-quality fruits and vegetables, especially in the winter months when horticultural production is at its lowest level in the EU region.

Citrus and vegetables are among the main exports of Morocco. Moroccan exporters have paid lots of efforts for many years to establish a standing among European importers as a reliable supplier of good-quality produce – at reasonable prices. At the same time, Moroccan exports have been partnering with the world's largest fresh producers. Thus, they earned a good reputation and grew in confidence as a result of being the partner country.

Fresh and frozen strawberries have been one of Morocco's main export products for years. Strawberry production and processing employs a large number of people who are involved in production, marketing and processing activities. Recent trends in EU, US and many Asian markets show that demand for other types of berries is also on increase. The dramatic increase in world demand for berries is particularly on off-season – winter and early spring – fruits. This makes market prices for fresh berries very attractive for exporters in the EU and US. The trends also show that there is an increasing demand for fresh raspberries, blackberries, and blueberries.

It should be stated here that the increase in berry consumption is boosted by the development of new berry varieties that are adapted to sub-tropical climates where there is relatively little winter chilling. Florida and coastal zones of California where the climate is similar to that of Morocco now produce berries in the early spring off season. Through the USAID-funded program IAA, some of these new berry varieties have been introduced to Morocco for trials. Others producers have introduced some patented varieties and are producing enough quantities to be sold in competitive markets.

Available statistics show that the world production and consumption of berries have witnessed a significant increase during the last decade. The statistics show that production of strawberries, blueberries and raspberries has increased from 3.94 million tons in the year 200 to 4.41 million tons in 2005 as indicated in table 1. The table also shows that strawberries are the dominant type of produced berries that represented in the year 2005 about 83 percent of world soft berries production (excluding blackberries).

Table 1 World berry production 2000-2006 (tons)

Berry type	2000	2001	2002	2003	2004	2005
Strawberries	3,292,703	3,221,612	3,241,016	3,351,942	3,656,307	3,789,701
Blueberries	237,497	237,171	223,457	247,649	243,686	245,453
Raspberries	408,595	432,044	471,633	444,708	512,221	524,211
Total	3,938,795	3,890,827	3,936,106	4,044,299	4,412,214	4,559,365

Source: FAO, www.FAO.org

To be competitive in the international markets, Moroccan berry producers need to access and analyze reliable data which evaluates current and future market opportunities for the Moroccan berries industry. The goal of this assignment is to provide Moroccan producers and exporters with current information on markets for Moroccan fresh berries as well as an analysis on Morocco's competitiveness in these markets against current and future players in the berry value chain. This assignment builds on the Observational Study Tour (OST) and is a direct response to a request from OST participants for a berry market study. This assignment compliments the berry variety study completed by Dr. Mark Gaskell and will also compliment the logistics study that has been conducted in September.

OBJECTIVES OF THIS REPORT

This report aims to provide Moroccan berry producers and exporters, policy decision-makers and interested researchers with a broad export market analysis to understand the dynamics of berry export market. The conducted market analysis in this report is intended to predict, as accurately as possible, the future changes in berry markets and to provide answers to important questions such as: 1) what is the market size of the main berries? 2) Who are the main competitors/producers? 3) What are the price trends in targeted markets? And; 4) what are the main obstacles facing berry export industry in Morocco?

The objectives of the study and answers to the raised questions are achieved through performing the following specific tasks:

- Release the tendencies, monthly and annual, on the international market and European market of strawberry, blueberry, raspberry, and blackberry;
- Complete a study of international markets for fresh and frozen strawberries, raspberries, blueberries, and blackberries;
- Provide monthly sales data in major markets by type (fresh, frozen) and variety;
- Provide price trend paid in the different European markets, by type and by variety at the wholesale level; and
- Complete an analysis of competitor countries for blueberry, raspberry, and blackberry. The analysis should include what countries the competitors are exporting to, during what windows, and at what wholesale prices. The analysis should also include time required for shipments from these countries to major markets in an attempt to gauge the shelf-life of competitor products.

METHODOLOGY USED IN THE REPORT

This report uses a variety of methodologies to conduct the export market analysis of berries in Morocco. The market analysis of the destination markets is based on the Profitable Demand concept. This approach includes the analysis of seasonal supply and demand in addition to the analysis of the seasonal market competition. The market analysis approach can help in answering the questions: What are the expected volumes of these berries to destination markets? Which can be exported profitably? and how much are(quantify) the size (depth) and the duration of the market windows for each type of the selected berries?

This methodology is used to estimate the volume of the unsatisfied (or unmet) demand in each of the main destination EU markets (UK, Germany and France). Monthly profitable demand is used here as a measure to explore the potentiality of the selected berries for export to the EU market. The monthly profitable market demand is that quantity which is already being imported during the peak import month in the country of destination.

The results of the analysis is used to tell the potential Moroccan exporters the quantity in the destination markets that can be absorbed each month at/or the prices, which will give them a profit. In addition it tells them how strongly deep the demand would be during the "marketing window" of that market (the size of the market window). The following steps summarize the estimation methodology of the potential unmet profitable demand:

- To estimate the Profitable Demand, we started with an estimate of the average producer/exporter "breakeven" price in the destination market to be analyzed. The breakeven price was estimated by adding up the farm production costs, packaging costs, transport costs, tariffs, handling and marketing fees for supplying one kilo of fresh berries from Morocco to the three studied key European markets (UK, Germany, and France). The breakeven price was almost the same in the three various markets; and
- The depth or the size of the market window for products originated from Morocco was estimated using the monthly wholesale price data and the monthly-marketed quantities in each of the three EU market.

Different data sets were used to conduct the analysis which includes:

- Crop enterprise budgets for berries produced in Morocco that have been used in the analysis to estimate the breakeven prices. The budgets were obtained from the IAA database and verified by producers and exports during field visits;
- Monthly quantity supply, in metric tons/week, for each of the destination markets (UK, France, and Germany) during the period 2001-2007. This piece of data was obtained from different sources including the International Trade Center database (ITC) and the FAO;
- Monthly and weekly wholesale prices in the destination markets were obtained from different sources including the ITC and the Fresh Produce Journal; and
- Production calendar of each type of berries (the earliest harvest dates in the most suitable production regions in Morocco).

INTERNATIONAL MARKETS FOR FRESH AND FROZEN BERRIES

The following analysis is intended to achieve the objectives of this study through providing an overview of berries supply and demand in major EU markets and to assess Moroccan competitive position and potential profitability in those selected markets. The analysis is based on the analyzed data that was obtained from different sources, filed visits to main production areas in the country, and interviews with berries producers and exporters. The analysis is presented by berry type (strawberry, blueberry, blackberry and raspberry)

STRAWBERRIES

World strawberries market

World strawberry production amounted to 3.82 million tons in 2007, of which about seventy five percent was produced in the US and EU. As indicated in figure 1, since 2000, strawberry production was increasing at almost a steady rate.

Over the 2003-2007 period, the average world production of strawberries was 3.71 million ton. As indicated in table 1, the USA was the leading producing country followed by Spain. Egypt and Morocco are the two major producing countries in Africa.

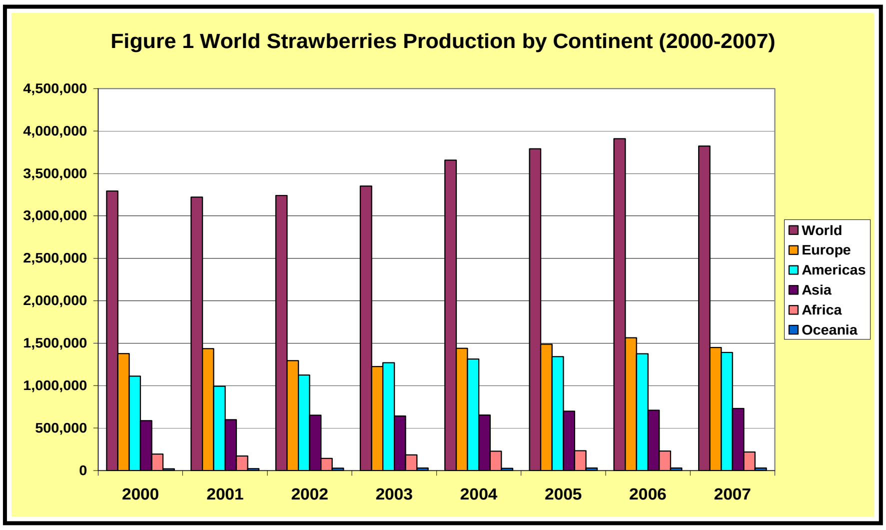


Figure 1 World Strawberries Production by Continent (2000-2007)

Table 2 Major World Strawberry Producers (2003-2007)

Producers (Strawberry)	2003	2004	2005	2006	2007	Average (2003-07)	Relative Importance
USA	977,945	1,004,163	1,053,242	1,090,436	1,115,000	1,048,157	27%
Spain	264,237	334,892	320,853	333,500	263,900	303,476	8%
Turkey	150,000	155,000	200,000	211,127	239,076	191,041	5%
Korea	205,427	202,500	201,995	205,307	200,000	203,046	5%
Japan	202,900	198,200	196,200	190,600	193,000	196,180	5%
Poland	131,332	185,583	184,627	193,666	168,200	172,682	5%
Mexico	150,261	177,230	162,627	154,893	160,000	161,002	4%
Germany	95,278	119,384	146,500	173,230	153,000	137,478	4%
Egypt	79,771	104,971	100,000	105,000	104,000	98,748	3%
Morocco	90,500	106,100	118,600	112,000	100,000	105,440	3%
UK	47,100	52,500	68,600	65,900	66,000	60,020	2%
Ukraine	32,900	36,400	46,200	47,800	63,000	45,260	1%
Italy	154,861	167,727	146,769	131,305	57,670	131,666	3%
France	45,483	53,457	57,637	57,221	57,500	54,260	1%
Belgium	41,000	44,000	42,000	44,000	45,000	43,200	1%
Netherlands	36,000	37,000	39,000	39,200	39,000	38,040	1%
Iran	27,000	33,722	38,494	38,500	38,500	35,243	1%
Total	2,731,995	3,012,829	3,123,344	3,193,685	3,062,846		79%
World +	3,351,942	3,656,307	3,789,701	3,908,978	3,822,989	3,705,983	

Source: FAO, http://www.FAO.org/

Table 2 shows the major world strawberry importers in 2007. The table demonstrates that France was the leading strawberry importer in 2007 followed by Canada, Germany and UK. The total imports of the four countries represent more than one half of world imports. The total value of imported strawberry in 2007 amounted to US$ 1,436 million at an average unit value of 2.2 US$ per one kilogram. The annual growth in value of imported strawberry over the period 2003-2007 increased by 14 percent compared to 8 percent growth in imported quantity. The table also shows that there is a tremendous increase in the annual growth rate of imported strawberries by the Russian Federation, USA, Canada, Italy and the Netherlands.

Table 3 Major World Strawberry Importers (2007)

Importers	Value imported in 2007, in US$ thousand	Quantity imported in 2007 (ton)	Unit value (US$/ton)	Annual growth in value between 2003-2007, %	Annual growth in quantity between 2003-2007, %	Share in world imports, %
World estimation	1,436,142	649,565	2,211	14	8	100
France	221,028	117,092	1,888	9	8	15
Canada	198,719	84,731	2,345	19	11	14
Germany	186,301	90,835	2,051	4	-6	13
United Kingdom	169,685	47,822	3,548	14	8	12
USA	134,476	69,592	1,932	22	15	9
Italy	69,489	38,396	1,810	18	14	5
Belgium	66,776	28,770	2,321	16	8	5
Austria	37,887	20,412	1,856	12	3	3
Switzerland	37,039	11,299	3,278	7	1	3
Japan	35,000	4,038	8,668	0	-4	2
Netherlands	33,981	21,472	1,583	14	14	2
Russian Federation	25,579	18,766	1,363	108	75	2
Others	220182	96340				15

Source: International Trade Center (ITC), http://www.trademap.org/

Spain is the leading world exporter of strawberry followed by the USA, Mexico, the Netherlands and Belgium (table 3). Exports of these five countries represent 78 percent of world's exports of strawberry. The table also shows that Egypt, the Netherlands and Mexico were the fastest growing countries in strawberry exports over the period 2003-2007. In terms of prices (unit value), exports from Israel, Egypt and the Netherlands achieved the highest prices in 2007. The high prices of Israeli and Egyptian strawberries represent those prices during the off-season window and may also represent the high quality of the product.

Table 4 Major World Strawberry Exporters (2007)

Exporters	Value exported in 2007, in US$ thousand	Quantity exported in 2007	Unit value (US$/unit)	Annual growth in value between 2003-2007, %	Annual growth in quantity between 2003-2007, %	Share in world exports, %
World estimation	1,478,968	646,845	2,286	15	6	100
Spain	470,922	247,841	1,900	11	3	32
United States of America	280,736	110,675	2,537	18	9	19
Mexico	135,817	70,970	1,914	27	3	9
Netherlands	131,615	30,833	4,269	28	26	9
Belgium	130,215	39,088	3,331	9	5	9
France	78,136	34,439	2,269	14	11	5
Italy	65,926	22,917	2,877	7	-3	4
Germany	34,425	15,969	2,156	25	22	2
Egypt	27,280	6,421	4,249	31	21	2

Exporters	Value exported in 2007, in US$ thousand	Quantity exported in 2007	Unit value (US$/unit)	Annual growth in value between 2003-2007, %	Annual growth in quantity between 2003-2007, %	Share in world exports, %
Poland	22,798	9,433	2,417	21	-6	2
Morocco	19,178	19,494	984	2	3	1
Israel	12,639	2,549	4,958	19	11	1
Australia	12,087	4,113	2,939	17	18	1
Turkey	11,448	11,412	1,003	292	321	1

Source: International Trade Center (ITC), http://www.trademap.org/

EU strawberries market

As indicated above, the EU market is the major world strawberry market in terms of traded volume and value. It should be noted here that the bulk of strawberry supplies come from other EU nations (Intra-EU), especially during the production season in Europe, while the rest is supplied by few other suppliers from outside the EU region such as the USA, Morocco and Egypt during the off-season.

United Kingdom market

The UK market is one of the major EU strawberry markets. Table 4 shows the main suppliers of strawberry to the UK market by month during the period 2007-2008. It is obvious from the table that the bulk of supplies flows in from other EU nations while the rest is supplied by few other suppliers from outside the EU region such as the USA, Morocco and Egypt.

On average, the annual UK imports of fresh strawberry amount to 56.6 thousand ton (2007-2008). Figure 2 demonstrates the monthly distribution of strawberry supplied in the UK market from the three main sources: 1) local production; 2) imports from other EU countries (Intra-EU); and 3) imports from outside the EU (Extra-EU). The figure indicates that the peak strawberry supply takes place during the month of May (20.7 thousand tons). The bulk of supply from local production enters to market during the months of April-August, while a major part of imports from the other EU countries can be observed during February-May. The figure shows also that the peak of imports from outside the EU can be seen during Dec-March.

Table 5 Major Strawberries Suppliers to UK Markets (Average Monthly Supplies (2007/08)

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec
Spain	571	2137	4927	6378	4607	628	144	6	5	2	0	6
Ireland	11	10558	27	35	60	51	71	52	24	22	13	23
Netherlands	195	147	153	720	1414	582	1009	904	546	1251	1785	538
Belgium	268	187	130	244	642	593	287	378	318	381	342	374
Morocco	454	1315	1527	68	11	0	0	0	0	0	0	56
Bulgaria	8	39	46	1	92	185	783	472	551	429	268	153
USA	0	2	4	74	338	257	968	190	81	279	174	5
Egypt	457	410	126	0	0	0	0	0	0	0	92	455
Israel	161	97	21	0	0	0	0	0	0	0	56	239

France	90	95	69	37	75	62	3	2	6	5	6	26
Jordan	46	37	14	0	0	0	0	0	0	0	0	6
Other	58	120	249	285	239	73	25	1	17	57	109	52
World	2,319	15,142	7,294	7,841	7,478	2,431	3,291	2,006	1,548	2,424	2,846	1,933
INTRA-EUR	1143	13162	5353	7413	6890	2102	2297	1814	1449	2088	2415	1120
EXTRA-EUR	1,176	1,980	1,940	427	588	329	994	191	98	336	431	813

Source: International Trade Center (ITC), http://www.trademap.org/

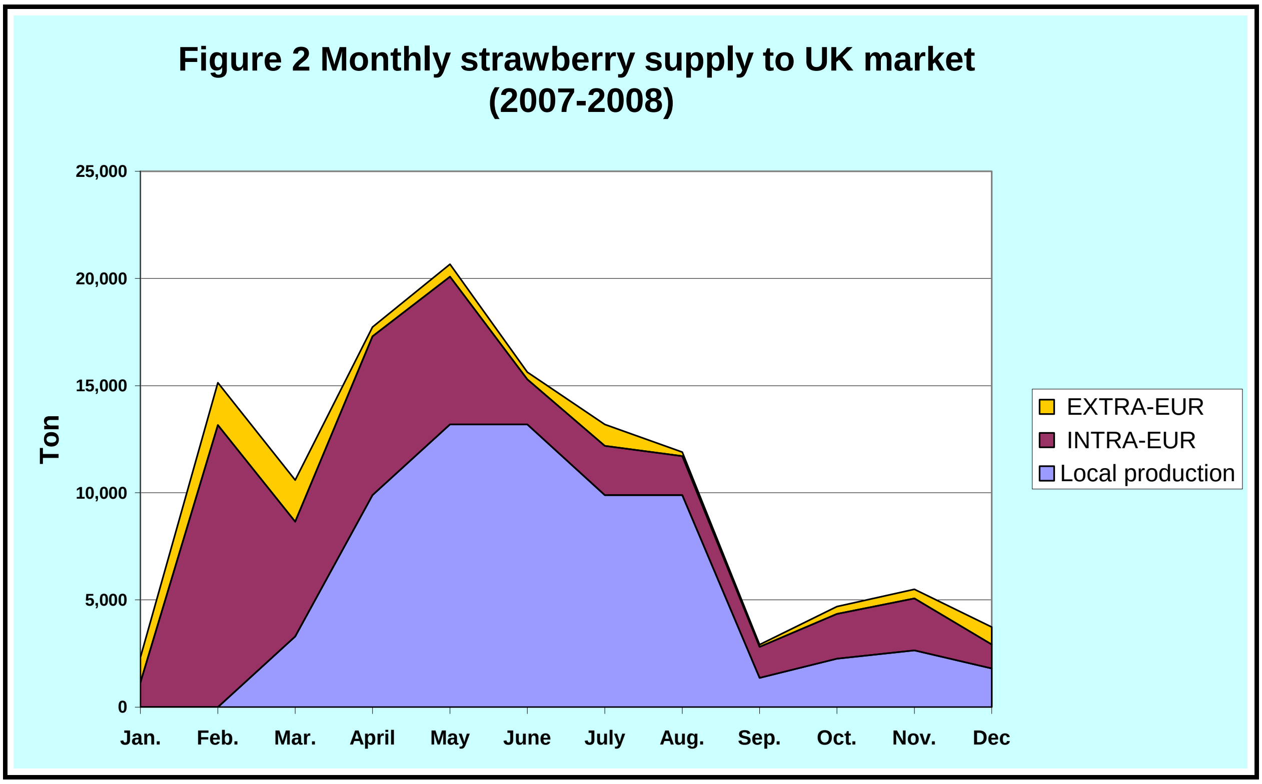
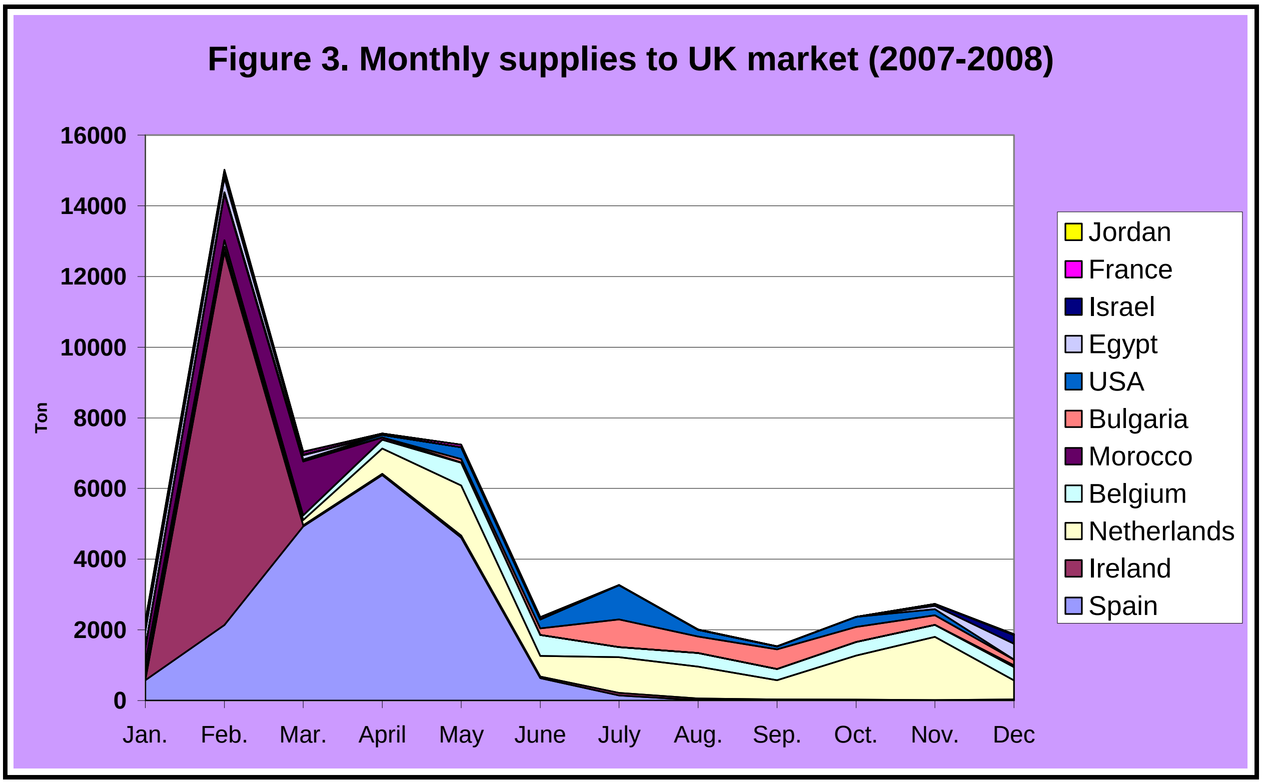


Figure 3 shows the main suppliers of fresh strawberry and the duration of their supply in the UK market during 2007-2008. The figure clearly shows that Spain is the dominant supplier during the period from January to June. Spain supplies annually about 34 percent of fresh strawberry to the UK market. The peak supplies from Spain take place during Feb-May. The second two major suppliers are Ireland and the Netherlands. Morocco supplies about 3,431 tons representing about 6 percent of the market share. Other suppliers include the USA, Egypt, and Israel.

Moroccan market opportunity for exporting strawberry to EU markets could be estimated from two types of possibilities: 1) capturing some existing market share from competitive suppliers during part of the year when the market is saturated; and 2) Morocco could supply additional volumes of strawberry to the market in excess of current supply, during periods of the year when there is a lack of supply, i.e. when demand surpasses supply.

As demonstrated above in the methodology, the concept of "profitable demand" is used in analyzing the size and depth of the market window. The market demand analysis starts with estimating the average Moroccan producer/ exporter "breakeven" price in each market to be analyzed.



The Moroccan "breakeven" wholesale price was estimated as the sum of the following costs:

- Farm production costs (labor, materials, annualized land, machinery etc.);
- Packing costs (labor, packaging, annualized plant, equipment etc.);
- Transport costs (farm to pack-house, pack-house to wholesale market in Europe); and
- Tariffs, handling and marketing fees.

The Moroccan breakeven price was estimated based on field reviews with some growers in the Gharb-Loukkos area. Detailed discussion of every stage of production, fixed and variable inputs and average yield of one hectare was held with them. As a result, the Moroccan breakeven price was estimated at about $1.5/Kg. This means that it will cost a Moroccan producer/exporter roughly $1.5/Kg to grow, pack, transport, and market a kilo of export quality strawberry in the European markets. Whenever the wholesale price is above $1.5/Kg this hypothetical Moroccan strawberry grower/exporter would make profits, when the price is below $1.5/Kg he/she would lose money.

Proximity to EU markets gives Morocco a comparative advantage from the transport point of view. The transport costs are lower than almost all of Morocco’s major competitors. Moroccan berries can reach the major cities of Europe by refrigerated trucks in less than two days while for other competitors it may take about 6-7 days if shipped by sea. Since transportation costs represent a significant percentage of the breakeven price for other competitors (sometimes 75% of the total cost), Morocco has a significant comparative advantage over more distant producers such as the USA, South Africa, Chile, Mexico and even some of those in the Mediterranean such as Egypt and Israel.

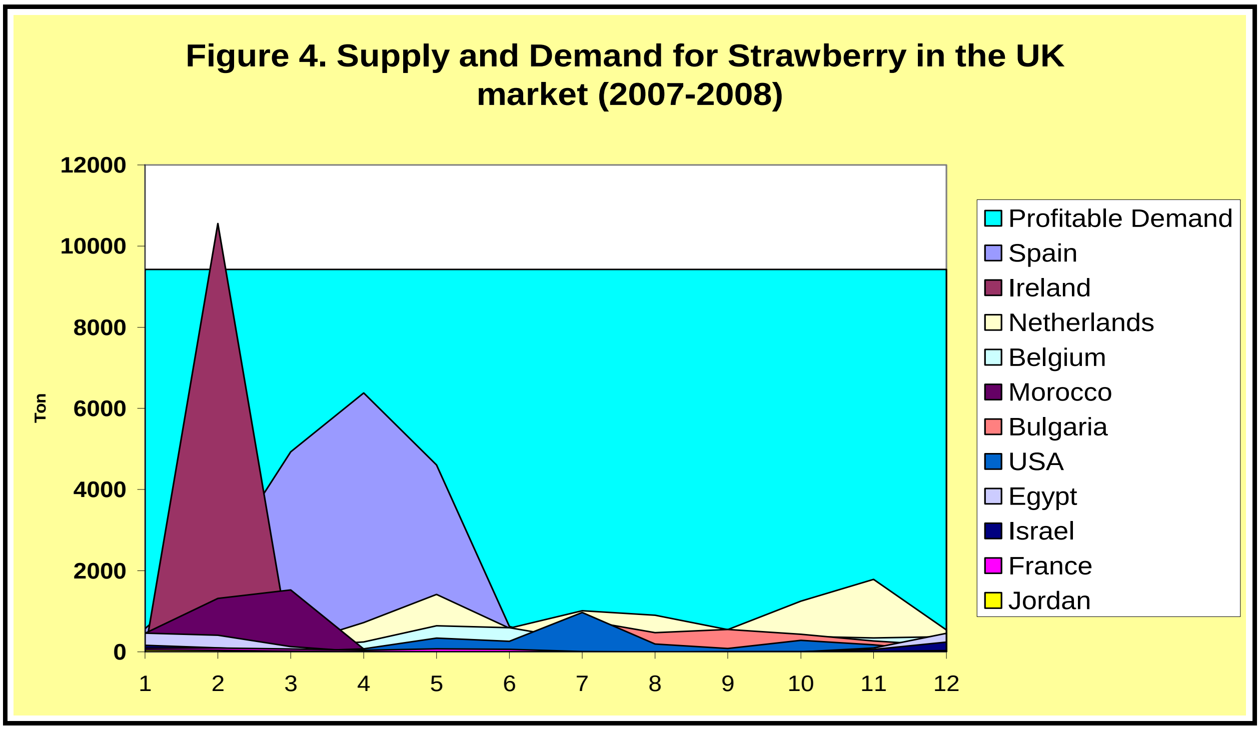
The competitive position of Morocco can be enlightened by investigating the position of the country against two groups of seasonal competitors. The first competitors group is the "shadow" market window competitors; Spain and Poland, The second group of competitors are the "off-season" competitors like USA, Egypt and Israel

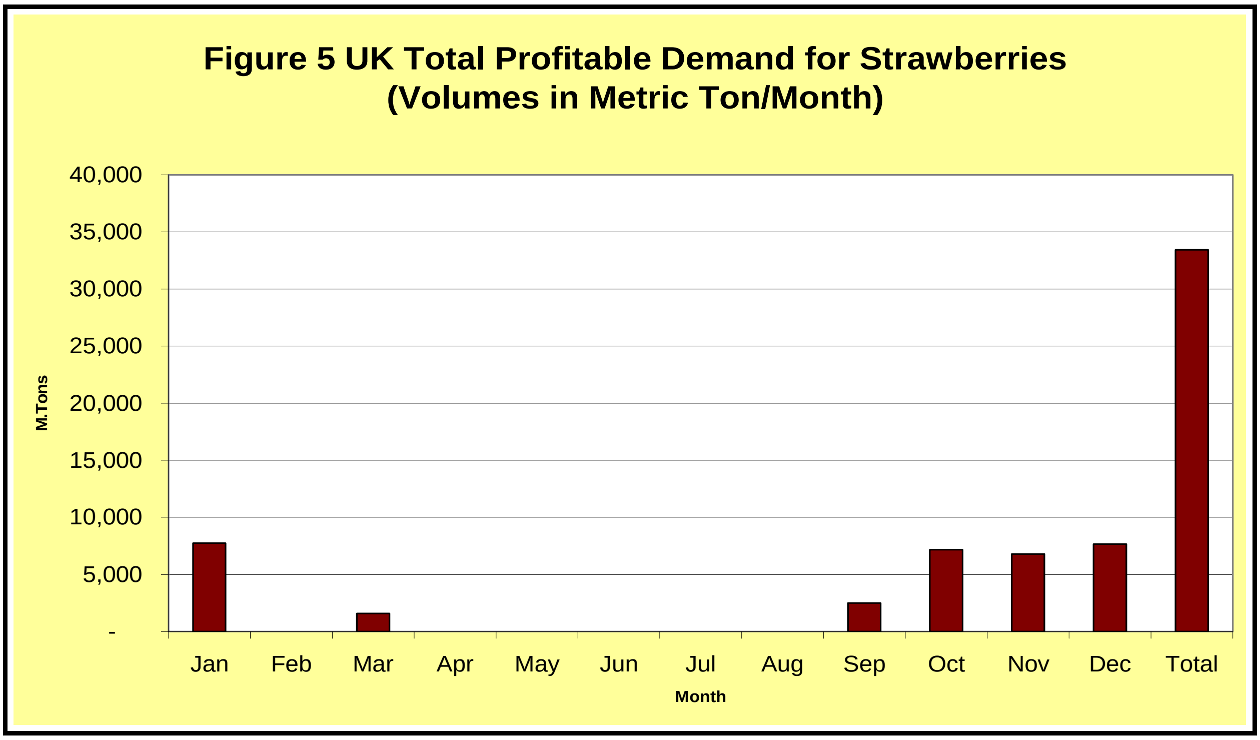
Spain is definitely the most critical competitor during the on-season "shadow" periods just after the Morocco window opens in October-December, and just before it closes in March-May. The very high wage costs in Spain result in production/packing costs that are higher than Morocco. On the other hand, the US represents a potential competitor from North America but the high air-fright costs and seasonal potentials makes Morocco’s position unique.

Egypt and Israel are the major Morocco's significant seasonal competitors and up to a certain extent, Egypt enjoys some cost advantages in terms of labor cost.

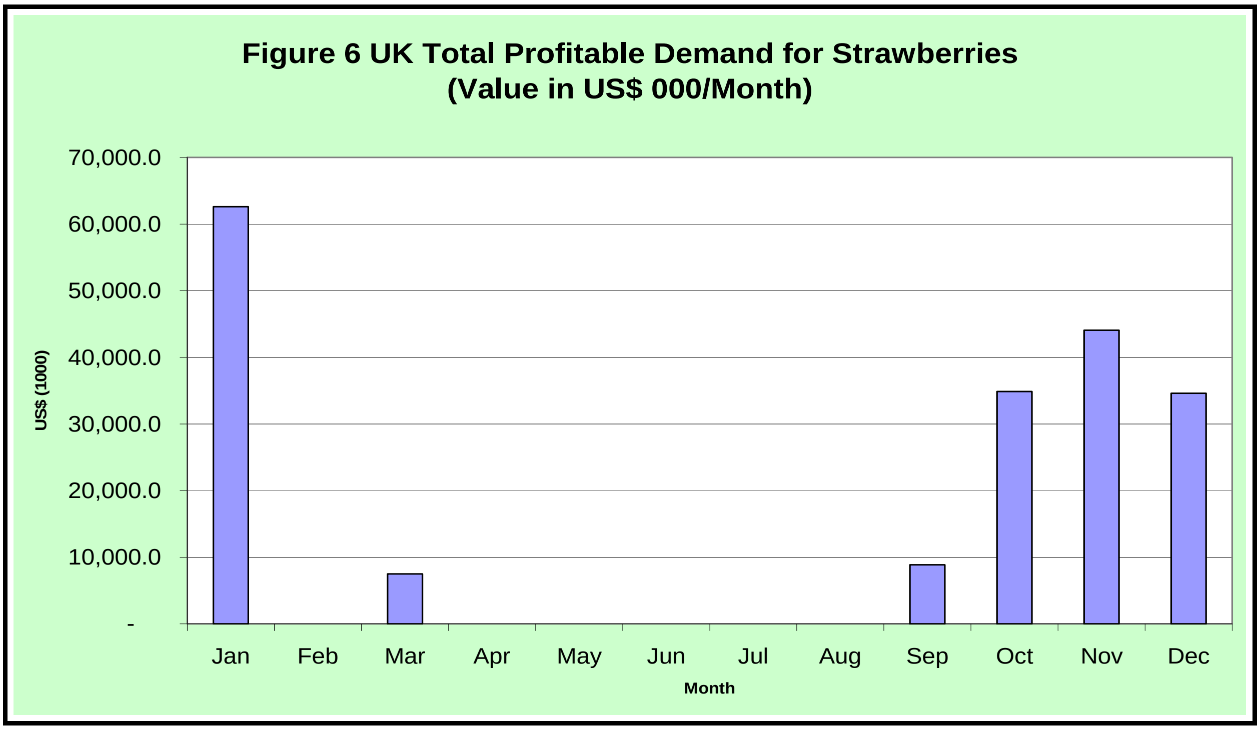
Size of the UK market window

The UK is one of the EU markets that have a significant Un-Met demand of fresh strawberry. The blue solid area in figure 4 represents the estimated unmet profitable demand to a Moroccan strawberry exporter. The UK Profitable Demand line is drawn at 9,425 metric tons per month. During the 5 months when the market window is open to Morocco (October to March), this would imply a total profitable demand of around 47,125 metric tons. However, during the three months before the window closes in March, some of the profitable demand is already being met by other competitors. This leaves the overall depth of the window at 33,432 tons per year (figure 5).





Using the actual prevailing prices of strawberries during the market window, we estimated the value of the unmet profitable demand in the UK at a sum of US$ 199 million as indicated in figure 6. The figure shows also the monthly distribution of the value of the unmet demand of fresh strawberry. It is clear that January dominates the market window and represents the highest value.



German market

The German market is the largest EU strawberry market. Table 5 shows the main suppliers of strawberry to the German market during the period 2001-2007. The table shows that on average, the total annual imports of fresh strawberries amounts to 112 thousand tons of which 65 percent comes from Spain. It is clear from the table that the bulk of supplies come from other EU nations while the rest is supplied by few other suppliers from outside the EU region such as Morocco and Egypt. The table also shows that imports from morocco have increased tremendously from only 68 tons in 2001 to reach around 4,120 tons in 2007.

Table 6 Major Fresh Strawberries Suppliers to German Market (Ton)

Exporter	2001	2002	2003	2004	2005	2006	2007	Average 2001-2007	Share %
Total Imports (ton)	149,36	118,46	117,71	117,60	103,49	97,349	81,102	112,157	100%
Spain	99,750	78,581	74,345	78,719	64,555	58,669	52,674	72,470	65%
Italy	20,300	13,942	11,884	9,709	11,197	11,365	8,320	12,388	11%
Netherlands	3,086	3,177	4,096	3,952	5,361	5,883	4,499	4,293	4%
France	6,575	6,283	7,896	9,172	12,183	9,123	4,144	7,911	7%
Morocco	68	29	616	2,170	2,537	2,211	4,120	1,679	1%
Belgium	5,840	4,423	6,497	5,707	2,909	4,185	2,409	4,567	4%
Poland	11,153	8,826	8,254	5,916	2,782	4,149	2,389	6,210	6%
Greece	3	-	-	2	18	113	973	158	0.03%
Egypt	238	190	194	339	287	623	828	386	0.01%

Source: International Trade Center (ITC), http://www.trademap.org/

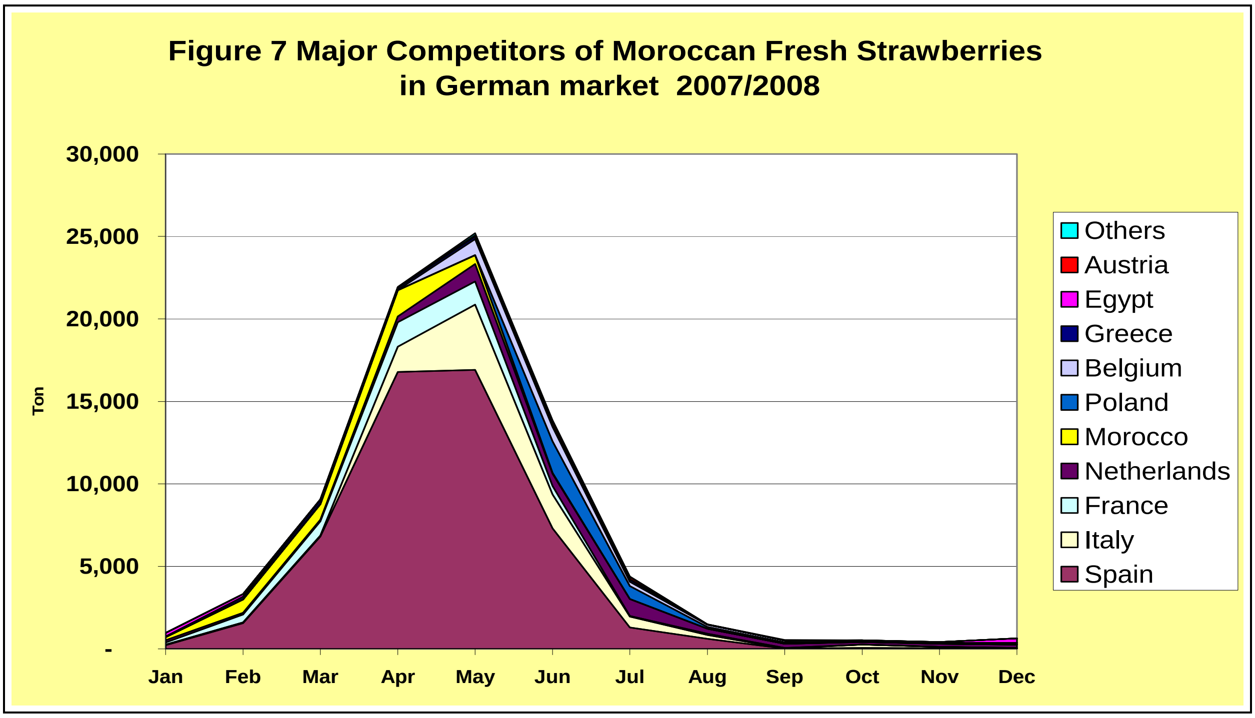
Table 6 demonstrates the monthly imports of fresh strawberry to the German market during 2007-08. It is clear from the table that the bulk of imports takes place during February and continues until August. Morocco exports are distributed over the months of January to May.

Table 7 Major Strawberries Suppliers to German Market (Average Monthly Supplies (2007/08)

Exporters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Av (07-08)
World	970	3,328	9,072	21,942	25,197	13,855	4,381	1,486	536	529	414	633	82,342
Spain	213	1,563	6,804	16,786	16,904	7,304	1,302	604	9	58	29	7	51,582
Italy	52	40	60	1,528	3,967	2,057	661	244	19	205	94	30	8,955
France	121	480	865	1,485	1,397	506	31	69	29	2	8	15	5,009
Netherlands	134	99	106	354	1,059	760	1,022	300	253	146	173	214	4,619
Morocco	191	811	935	1,577	535	46	-	-	-	-	4	-	4,100
Poland	-	0	0	2	10	1,912	783	106	86	36	15	21	2,970
Belgium	28	16	34	22	971	869	270	141	118	83	47	74	2,672
Greece	4	150	213	138	157	80	145	3	-	-	-	-	889
Egypt	223	162	32	10	-	-	-	-	-	-	37	272	736
Austria	-	5	0	8	64	268	148	17	0	0	-	-	510
Others	3	3	21	33	134	54	19	4	22	-	6	1	301

Source: International Trade Center (ITC), http://www.trademap.org/

Figure 7 shows the main competitors of Morocco in the German market during 2007-08. It is clear from the table that the bulk of imports takes place during February and continues until August. Morocco exports are distributed over the months of January to May.



Size of the German market window

The German market presents one of the largest amounts of potential unmet demand of the three main EU markets. The German Profitable Demand line is drawn at roughly 17,750 metric tons per month. During the 5 months period when the market window is open to Morocco, this would imply a total profitable demand of roughly 90,120 metric tons.

During the three months before the window closes in March, roughly some of the profitable demand is already being met by competitors. This leaves the overall depth of the window at over 68,372 tons per year.

Germany is one of the EU markets that have a significant unmet demand of fresh strawberry. The pink solid area in figure 8 represents the estimated unmet profitable demand to a Moroccan strawberry exporter. The German Profitable Demand line is drawn at 17,750 metric tons per month. During the 5 months when the market window is open to Morocco (October to March), this would imply a total profitable demand of around 90,120 metric tons. However, during the three months before the window closes in March, some of the profitable demand is already being met by other competitors. This leaves the overall depth of the window at 68,372 tons per year (figure 9). Using the actual prevailing prices of strawberries during the market window, we estimated the value of the unmet profitable demand in Germany at a sum of US$ 267 million as indicated in figure 10. The figure shows also the monthly distribution of the value of the unmet demand of fresh strawberry. It is clear that January dominates the market window and processes the highest value.

Figure 8. Supply and Demand for Strawberry in the German market (2007-2008)

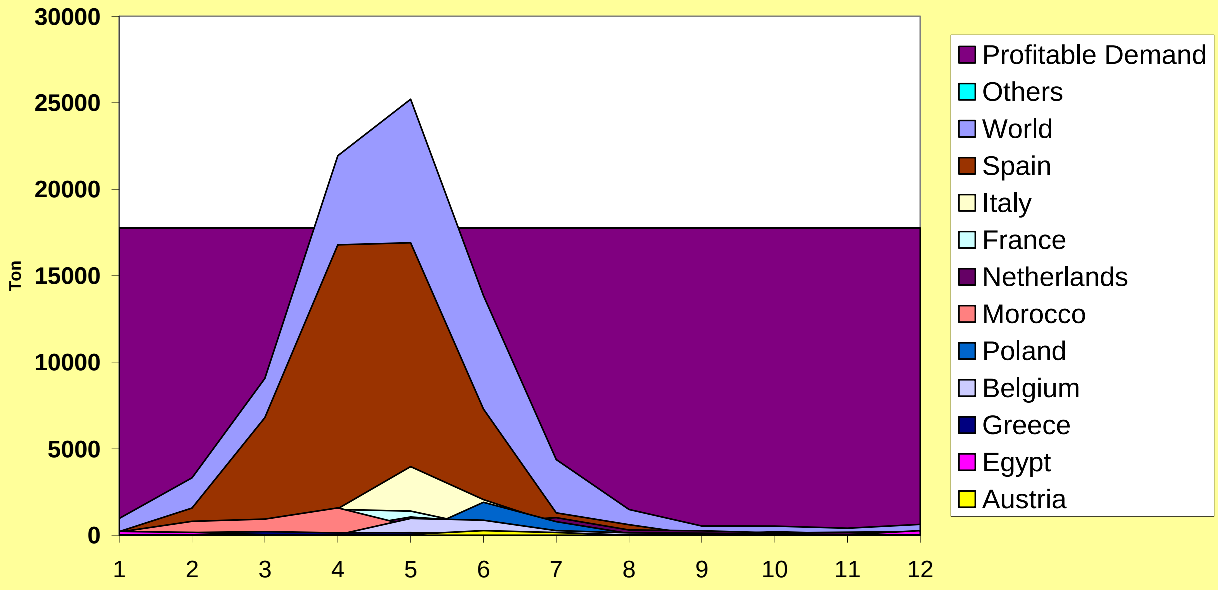
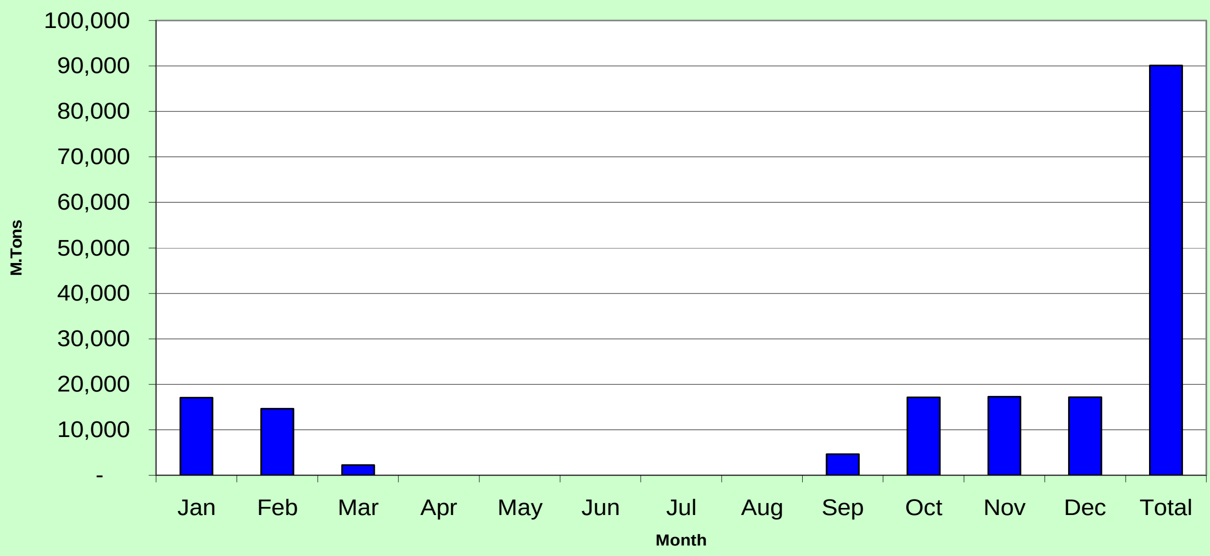
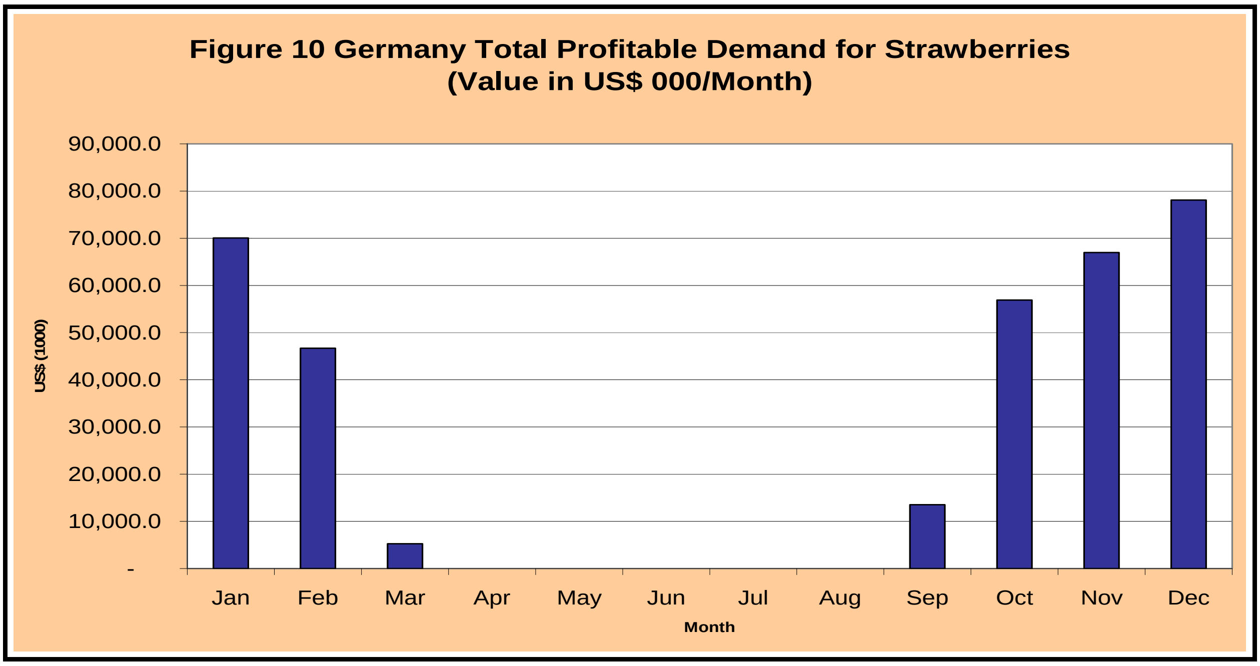


Figure 9 German Total Profitable Demand for Strawberries (Volumes in Metric Ton/Month)





French market

France is also one of the largest EU strawberry markets. Table 7 shows the main suppliers of strawberry to the French market during the period 2001-2007. The table shows that on average, the total annual imports of fresh strawberryies amounts to 105 thousand tons of which 72 percent is supplied from Spain. It could be noticed from the table that the bulk of supplies comes from other EU nations while the rest is supplied by few other suppliers from outside the EU region such as Morocco and Egypt. The table shows that imports from Morocco have increased tremendously from only 12,805 tons in 2001 to reach to 22,000 tons in 2005 and then declined to 14,842 tons in 2007. On average, the annual imports from Morocco formed 16 percent of the total imports over the period 2001-2007.

Table 8 Major Fresh Strawberries Suppliers to German Market (Ton)

Exporter	2001	2002	2003	2004	2005	2006	2007	Average 2001-2007	Share %
Total	82,223	91,264	94,656	115,152	122,532	117,092	110,096	104,716	100.0%
Spain	59,563	64,831	68,927	83,466	86,357	83,148	77,868	74,880	71.5%
Morocco	12,805	15,447	13,366	18,233	22,009	19,718	14,842	16,631	15.9%
Belgium	4,421	5,410	6,213	5,386	7,090	5,461	6,323	5,758	5.5%
Germany	2,928	2,527	2,135	4,676	3,515	3,901	4,264	3,421	3.3%
Netherlands	1,069	1,336	1,020	794	794	886	2,139	1,148	1.1%
USA	147	380	1,166	625	610	1,282	1,288	785	0.8%
Luxembourg	N/A	-	2	-	1	32	1,055	182	0.2%
Egypt	178	264	377	417	503	866	853	494	0.5%
Italy	635	597	410	480	390	301	426	463	0.4%
Others	477	472	1,040	1,075	1,263	1,497	1,038	980	0.9%

Source: International Trade Center (ITC), http://www.trademap.org/

Table 8 demonstrates the monthly imports of fresh strawberries to the French market during 2007-08. As in the case of the other EU markets, it is clear from the table that the bulk of imports takes place during February and continues until August. Morocco exports (market window) are distributed over the months of November to April. Moroccan exports during

2007-2008 cover 12 percent of the total annual French imports of fresh strawberries as indicated in table 8.

Table 9 Major Strawberries Suppliers to French Market (Average Monthly Supplies) (2007/08)

Exporters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Av (07-08)
World	3,065	9,839	23,523	26,087	20,453	10,750	4,227	2,922	1,836	1,380	1,714	2,087	107,882
Spain	912	5,223	17,770	25,077	18,543	5,976	1,107	881	438	245	577	465	77,212
Morocco	1,648	4,259	5,398	494	27	30	-	-	-	-	154	742	12,753
Belgium	44	21	70	194	799	1,226	1,052	852	774	557	415	226	6,229
Germany	4	21	149	94	583	1,975	801	504	178	51	48	38	4,444
Netherlands	270	214	96	50	121	414	292	295	180	358	241	92	2,622
Luxembourg	1	2	6	15	31	690	545	54	38	2	0	2	1,385
USA	-	1	0	16	26	169	370	312	208	158	98	-	1,360
Egypt	171	80	3	-	-	-	-	-	-	-	102	466	821
Italy	2	12	16	47	124	37	2	1	1	2	1	0	245
Others	14	5	15	100	198	233	59	23	20	7	79	57	810

Source: International Trade Center (ITC), http://www.trademap.org/

Size of the French market window

The French Profitable Demand line is drawn at roughly 11,109 metric tons per month. During the 5 months when the market window is open to Morocco, this would imply a total profitable demand of roughly 90,120 metric tons.

During the three months before the window closes in March, roughly some of the profitable demand is already being met by competitors. This leaves the overall depth of the window at over 37,405 tons per year. The green solid area in figure 11 represents the estimated unmet profitable demand to a Moroccan strawberry exporter. The French Profitable Demand line is drawn at 11,109 metric tons per month. During the 5 months when the market window is open to Morocco (October to March), this would imply a total profitable demand of around 133,306 metric tons. However, during the three months before the window closes in March, some of the profitable demand is already being met by other competitors. This leaves the overall depth of the window at 90,120 tons per year (figure 11). Using the actual prevailing prices of strawberries during the market window, we estimated the value of the unmet profitable demand in the French market at a sum of US$ 122 million as indicated in figure 12. The figure shows also the monthly distribution of the value of the unmet demand of fresh strawberries. It is clear that December and January dominate the market window and represent the highest value.

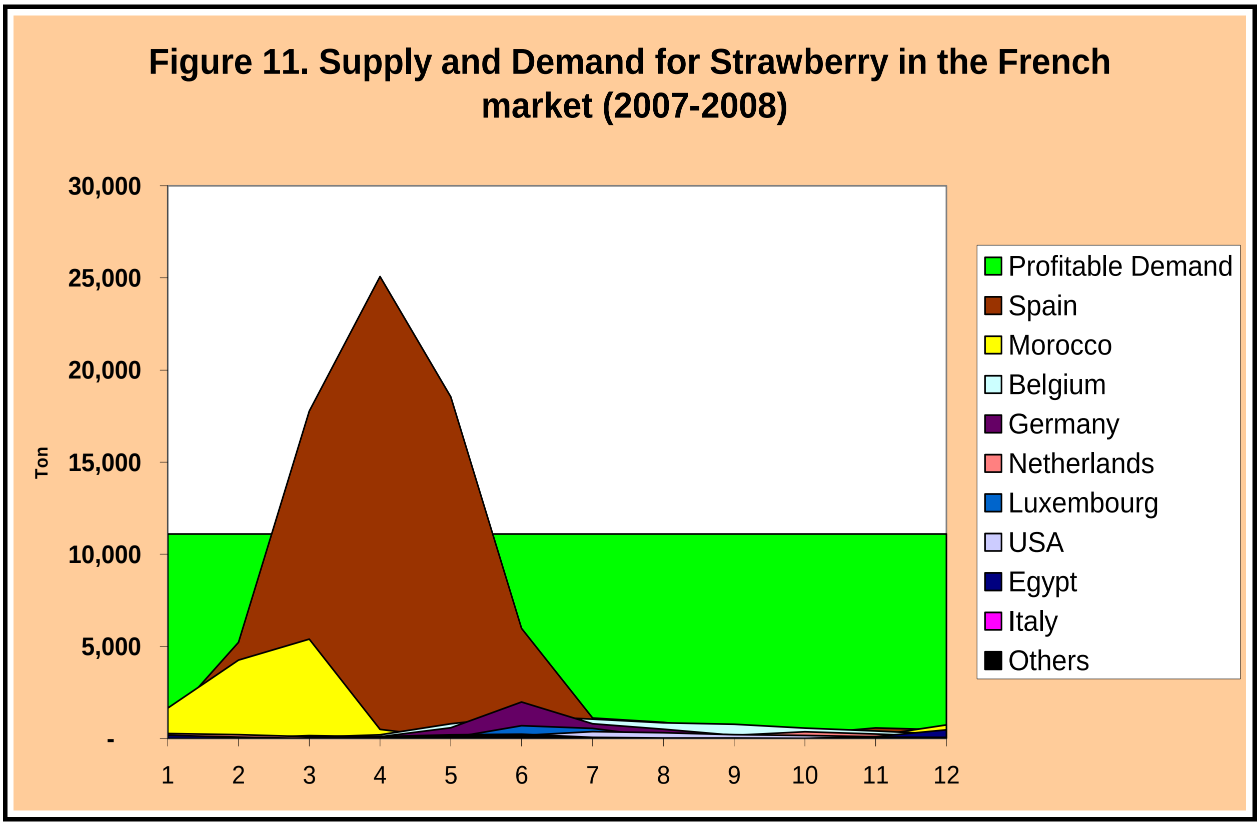


Figure 11. Supply and Demand for Strawberry in the French market (2007-2008)
30,000
25,000
20,000
15,000
10,000
5,000
-
Ton
1
2
3
4
5
6
7
8
9
10
11
12
Profitable Demand
Spain
Morocco
Belgium
Germany
Netherlands
Luxembourg
USA
Egypt
Italy
Others

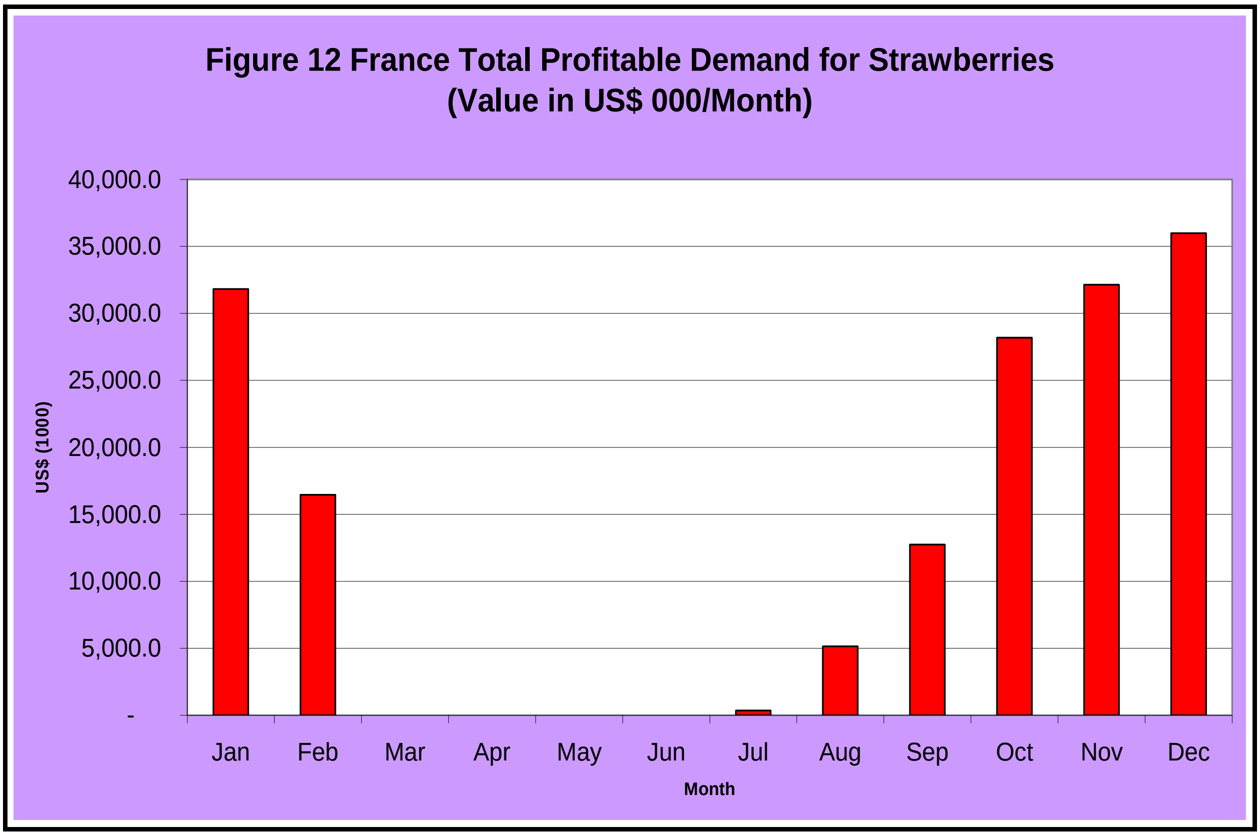


Figure 12 France Total Profitable Demand for Strawberries (Value in US$ 000/Month)
40,000.0
35,000.0
30,000.0
25,000.0
20,000.0
15,000.0
10,000.0
5,000.0
-
US$ (1000)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month

FROZEN STRAWBERRIES

World frozen strawberries market

Frozen strawberries industry has been growing since 2001. The world frozen strawberries imports increased from 332 thousand tons in 2001 to 504 thousand tons in 2007. The leading countries in frozen strawberries imports are Germany, the USA and France as indicated in table 9.

Table 10 demonstrates that China and Poland are the two leading countries in frozen strawberries followed by Morocco and Mexico. The share of the four countries forms 62 percent of world exports. The table shows that Morocco's frozen strawberries exports have grown tremendously since 2002. Likewise, exports from China have increased by more than five folds since 2001. On the contrary, Poland's exports have been declining since 2001.

Table 10 Major frozen strawberries importers

Importers	2001	2002	2003	2004	2005	2006	2007	% of 2007
World	331862	382780	425926	385354	426859	441365	504199	100%
Germany	92197	100249	105169	63885	84881	81992	84068	17%
USA	36190	52707	55795	56993	73294	82335	82694	16%
France	35611	34671	39858	43133	37976	42235	49787	10%
Netherlands	10864	17408	17481	16100	25799	31002	38650	8%
Japan	31634	28822	29419	28371	27308	25000	28406	6%
Belgium	12908	13421	16913	17928	20712	20823	23576	5%
Spain	7353	11275	16593	22315	15130	15286	22796	5%
United	14761	20059	17416	17302	17247	17378	20426	4%
Canada	14898	18485	20703	17051	18948	18693	19726	4%
Russian Federation	2918	4244	4862	5959	8772	12907	15805	3%
China	998	4384	17596	10985	9296	7918	11850	2%
Italy	8113	8419	12500	9875	9317	8573	11637	2%
Denmark	14272	13562	15325	11756	9504	8750	11320	2%
Austria	8835	8043	8918	7672	10521	10000	9859	2%
Saudi Arabia	1723	3442	4934	7628	5643	8229	9513	2%
Poland	989	1533	2944	1919	1346	1782	7505	1%
Sweden	4781	6242	7486	6640	6894	5663	6876	1%
Republic of	1403	1909	2042	3852	3953	4809	6460	1%
Australia	4312	5035	5697	6303	6358	5601	6456	1%
Others	27102	28870	24275	29687	33960	32389	36789	7%

Source: International Trade Center (ITC), http://www.trademap.org/

Table 11 Major frozen strawberries exporters

Exporters	2001	2002	2003	2004	2005	2006	2007	% of 2007
World	325708	541381	366657	378571	433893	416248	527223	100%
China	21154	34924	77963	75826	97831	70250	103386	20%
Poland	125767	126926	84018	89109	118029	102161	103170	20%
Morocco		22596	29420	20071	35070	30208	63035	12%
Mexico	41214	229080	45140	39099	44453	44354	58942	11%
Spain	23256	25273	36709	34896	22872	25253	36925	7%
Belgium	10675	14772	20382	21306	17691	22523	22972	4%
Netherlands	106	258	767	17321	20645	21468	22743	4%
Chile	5004	0	0	16099	15842	20294	20323	4%
Egypt	1369	3395	6046	8927	4002	8371	20045	4%
USA	26367	26305	11617	13428	15820	17013	19637	4%
Argentina	1016	2961	5768	9775	11202	16635	15612	3%
Germany	16863	16296	14385	6838	9551	9030	9054	2%
Turkey	9945	12102	11124	8118	7292	8335	7418	1%
Denmark	3549	5238	5416	3006	708	2406	3205	1%
Peru	0	24	973	384	452	1582	3014	1%
Ecuador	2290	2278	3046	2316	2232	2200	2633	0%
Others	37133	18953	13883	12052	10201	14165	15109	3%

Source: International Trade Center (ITC), http://www.trademap.org/

Major importers of frozen strawberries in the EU market

As indicated above Germany, France and the Netherlands are the major importers in the EU region. Imports by the three countries represent more than one third of world imports of frozen strawberries. Tables 11 through 13 show the monthly distribution of imports to Germany, France and the Netherlands by country of origin.

As indicated in table 11, the German imports tend to be the highest during the months of April to October. The table also shows that Morocco's exports of frozen strawberries to Germany have a tendency to increase after the fresh exports season is over especially during April, May, June and July as indicated in table.

Table 12 Monthly imports of frozen strawberries to Germany by country of origin (2007)

Exporters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
World	3877	4165	5718	8192	5918	8556	13257	10041	9328	6827	4089	4101
Poland	2470	2604	2948	4168	2000	4503	6236	3272.8	5048	2508	1475	1597
China	47.6	0	0	25.7	49.9	505.4	2598.2	3760.7	2289	1295	1128	796.1
Netherlands	199.4	462.4	413.9	346.9	223.2	394	708.7	478.2	360.8	1018	381.1	854.8
Belgium	208.9	302.6	260.3	418.5	397.1	430.3	236.6	163.9	220.2	293	307.8	131.8
Morocco	0	0	313.2	919.7	517	568.5	742.5	323.7	142.2	19.9	13.2	9
Spain	0	174.7	406.7	801.7	1260	624.4	619.9	677.5	399.1	700	178.5	240.1
France	300.5	25.5	109.7	117.9	71.8	241.6	742.3	326	222.8	137.3	23.2	44.5
Mexico	0	0	0	0	19.1	24.9	0	0.5	21.3	0.5	0	0
UK	148.7	107	41	42	38.3	145.9	27	69	56.9	93	68.9	21.5
Egypt	0	69	850.5	1082	740.8	476.7	233.8	155.6	0	24	0	0

Source: International Trade Center (ITC), http://www.trademap.org/

Table 12 demonstrates that France imports of frozen strawberries increased during the months of March, April, May and June, 2007. Poland is the leading exporter to the French market. Like the German market, Morocco's exports of frozen strawberries to France have also the tendency to increase after the fresh exports season is over especially during March, April, May, June and July.

Table 13 Monthly imports of frozen strawberries to France by country of origin (2007)

Exporters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
World	2210	3284	6371	7741	9147	5815	2816.4	3275.4	2192	2635	1835	Tons
Poland	720.1	893.9	316.9	303.2	903.7	1057	391.2	349.3	208	276.7	243	Tons
Spain	206.7	438.9	2514	3258	3396	1087	451.5	771	487.8	586.7	194.5	Tons
Netherlands	580.9	308.5	302.9	245.2	459.6	637.1	1001.6	621.9	220.1	476.2	160.5	Tons
Belgium	268.3	0	0	442.9	409.6	561.4	193.6	372.3	223.2	486.5	396.9	Tons
Morocco	246.3	1310	2730	3197	3288	1278	121.2	48.2	252.5	224.3	23	Tons
Tunisia	0	0	0	0	42.2	42.2	0	211.2	273.9	0	0	
Germany	37.2	13.7	10.4	11.8	85.4	387.4	74.2	84.3	102.2	61.7	65.4	Tons
Portugal	0	0	0	22	124	175.1	1.2	108.2	183.3	174.7	92.9	Tons
China	24.5	73.5	0	24.1	245	354.5	385	621.3	98	0	201	Tons
Italy	18.4	20.4	3.9	5.3	28.1	0.3	112.4	40.4	18.2	11.9	15.6	Tons

Source: International Trade Center (ITC), http://www.trademap.org/

Table 13 shows that the Netherlands imports of frozen strawberries increased during the months of June, July and August of 2007. China is the leading exporter to the French market followed by Poland. Available statistics show that there are not exports from Morocco to the Netherlands market.

Table 14 Monthly imports of frozen strawberries to the Netherlands by country of origin (2007)

Exporters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
World	642.4	1084	2463	2559	3084	8940	10165	7570	2859	1902	1821	1370
China	12	62.7	89.5	351.8	665.5	2079	5245.9	6134.4	2001	1408	1454	876.8
Poland	349.3	405.7	191	192.5	106.2	3946	3065.7	1130	460.3	251.4	173.1	139
Chile	47	282	252.7	89.9	0	0	162.4	0	0	0	0	55.4

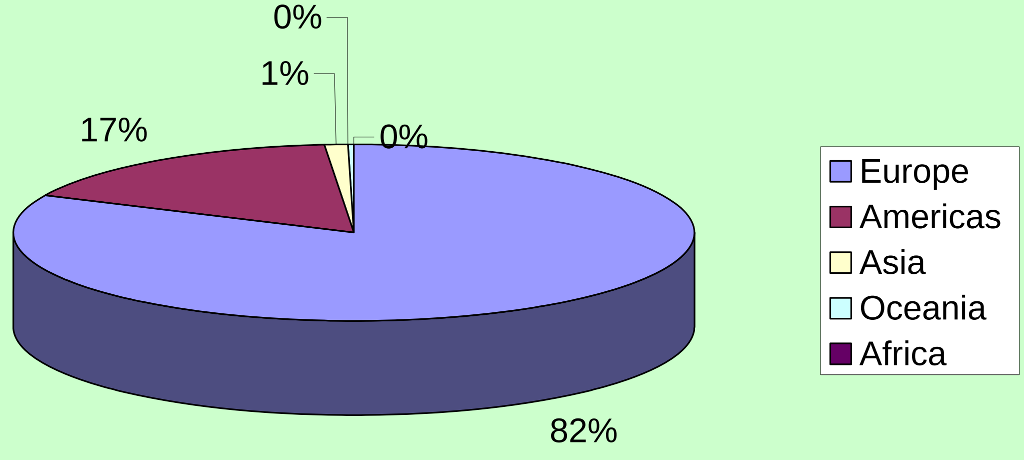
Source: International Trade Center (ITC), http://www.trademap.org/

RASPBERRIES

World raspberries market

The world raspberry production amounted to 415 thousand tons in 2005 of which almost 99 percent was produced in Europe and the Americas as indicated in figure 13.

Figure 13 Raspberries world production by continent (2000-2005)



The Russian Federation is the world leading producer of raspberries followed by the EU and the USA (table 14). Although the US is the third largest raspberry producer in the world, only 15% of its domestic demand for raspberry fruit is met by production in the U.S. The rest is met through imports from Canada, Mexico and Chile. Raspberries production has steadily increased since the early nineties. Production has increased by 40% since 1990, due to the combined effects of increase in cultivated areas and increase in yield.

Table 15 Major Raspberries Producers (2000-2005)

Country	2000	2001	2002	2003	2004	2005
Russian Federation	130,000	140,000	165,000	150,000	170,000	175,000
EU	123,884	118,039	113,086	102,500	121,856	122,757
USA	51,256	51,982	51,710	62,142	71,941	82,826
Poland	39,727	44,818	44,874	42,941	56,800	60,000
Germany	33,700	29,200	29,700	20,600	20,034	20,000
Ukraine	19,723	19,137	18,100	19,700	25,300	26,000
Canada	16,247	11,658	14,880	14,236	13,828	12,920
Hungary	19,804	13,306	9,847	9,258	8,470	6,724
United Kingdom	9,800	7,700	7,300	8,500	10,000	12,200
France	8,743	8,549	7,971	6,830	6,875	5,742
Spain	2,500	3,200	4,500	4,500	6,000	7,000
Bulgaria	3,000	3,147	3,938	4,083	5,606	3,000
Azerbaijan	1,000	1,100	1,800	4,800	4,300	6,300
Morocco	50	50	50	50	50	50

Source: FAO, www.fao.org/FAOSTAT

Data reported by the International Trade Center (ITC) and EUROSTAT on major importing countries do not differentiate between raspberries, blackberries, mulberries and loganberries. However, at the country level, in certain occasions some statistics can be found on raspberries and blackberries. Table 15 shows the major world importers of raspberries, blackberries, mulberries and loganberries during the period 2001-2007. The table shows that the US is the major importer of mainly raspberries followed by Canada. At the EU level, Germany, UK, the Netherlands, Austria and France are the major importers of these berries. The table shows that around 70 percent of the four types of imported berries at the world level are imported by the EU countries. The world imports of those berries have been increasing significantly since 2001. The imports in 2007 have increased by more than two folds of 2001.

Table 16 Major world importers of raspberries, blackberries, mulberries and loganberries, fresh

Importers	2001	2002	2003	2004	2005	2006	2007
World	54692	72940	83250	91501	90188	94777	132018
USA	11000	10485	13799	17289	21212	24684	37206
Canada	4675	6649	7989	7674	8608	11600	18059
Germany	7961	10304	18596	14045	11687	13198	15291
United Kingdom	3750	5217	5426	5653	7411	9702	13713
Netherlands	6307	6113	7645	10250	9871	8652	13211
Austria	6299	13891	11495	15097	12376	7224	12324
France	2290	3787	3894	5491	4593	5299	6226
Italy	940	1678	1661	3081	3034	3788	4406
Belgium	3953	5316	5904	5384	4366	3887	4127
Greece	87	60	263	737	917	1023	1365
Others	7430	9440	6578	6800	6113	5720	6090

Source: International Trade Center (ITC), http://www.trademap.org/

Major importers of raspberries in the EU market

German market

As indicated above, Germany is the leading country in raspberries imports. The total imports of the German market from all destinations amounted to 14.6 thousand tons. The main suppliers are Poland, Austria and Spain. The data shows that some Moroccan raspberries have entered the German market in 2007 (figure 14).

Figure 14 German imports of raspberries (2001-2007)

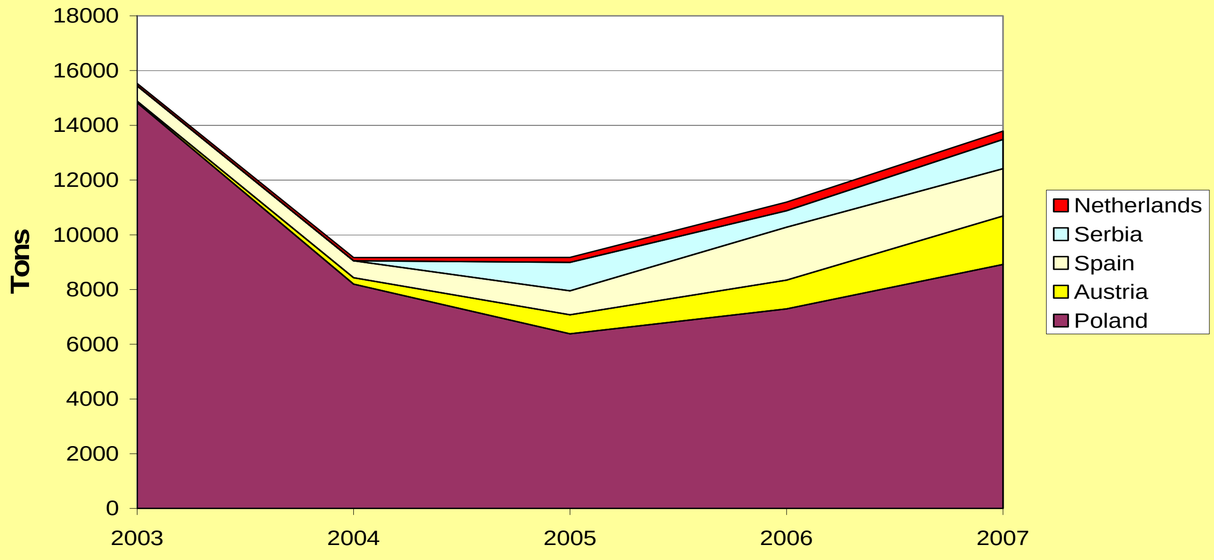
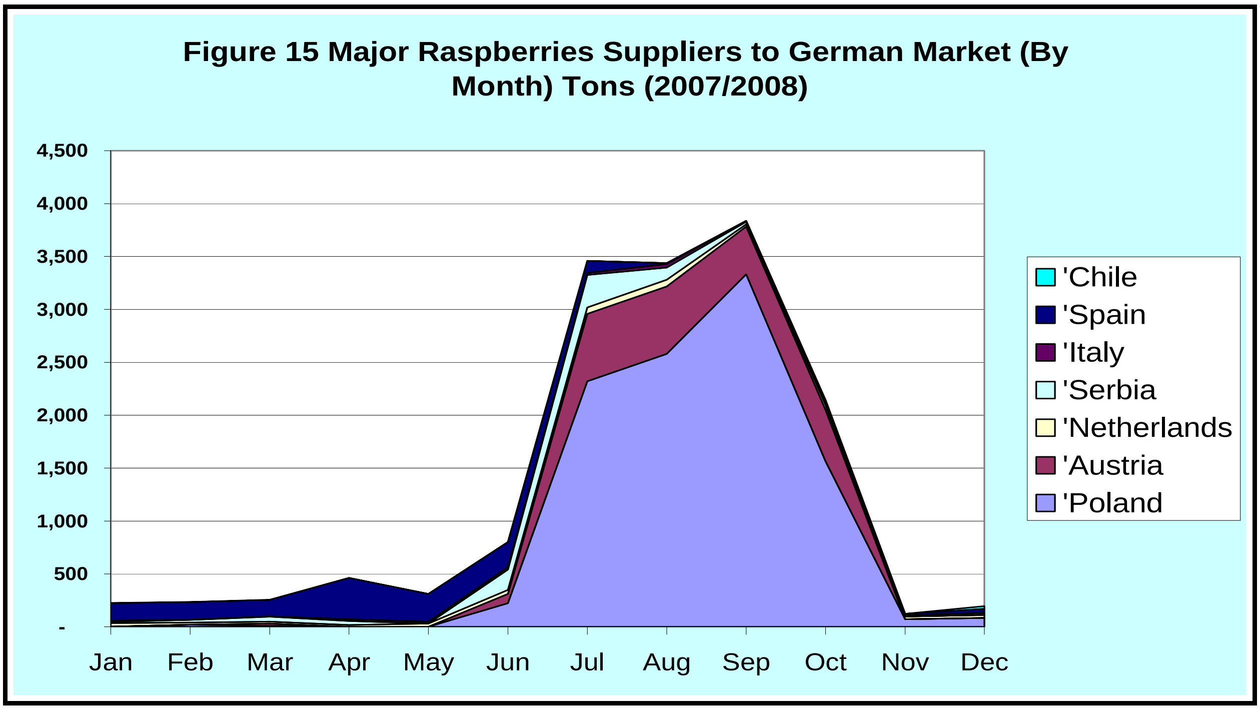
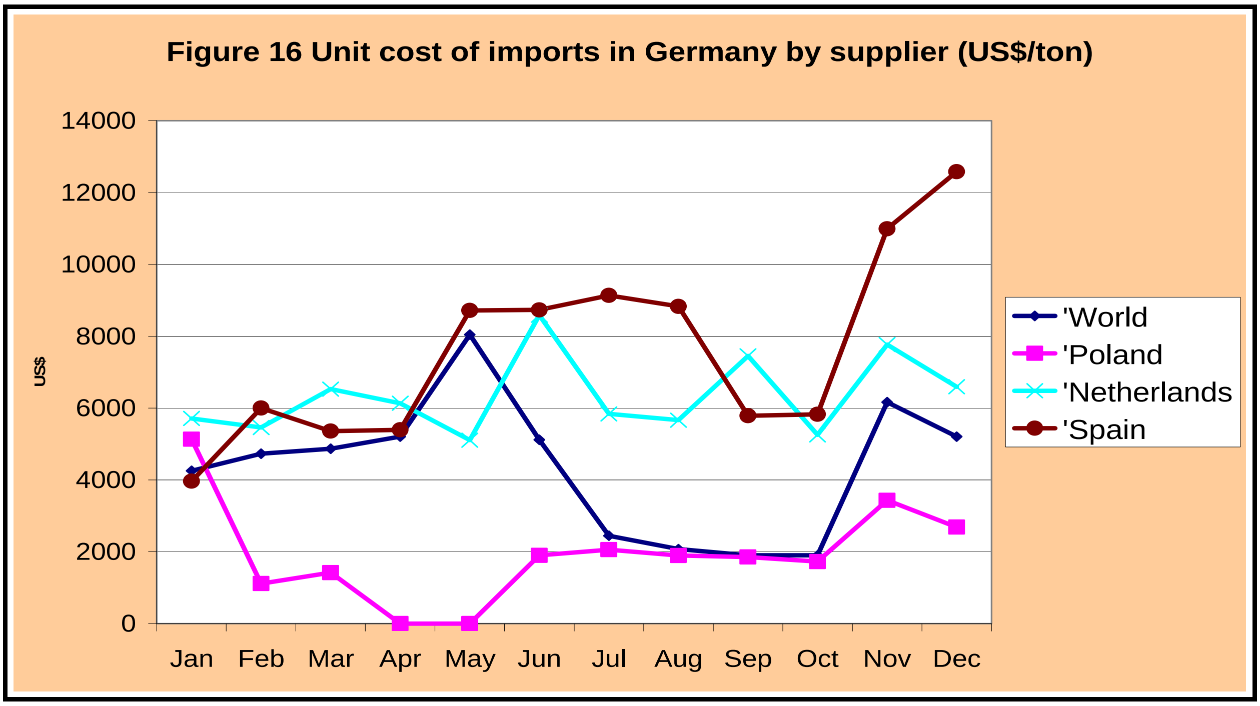


Figure 15 shows the monthly distribution of raspberries imports from the main sources to the German market. It is clear from the chart that much of the imports from the different sources take place during the window from May to November. On the contrary, the Spanish supply starts in early January and continues till June. This means that Morocco can get into the market and compete easily with Spain during the winter season (off-season) and benefit from the high prices during that period. As indicated in figure 16, prices of the raspberries originating from Spain are the highest among all competitors during the months of October, November and December. This means that if Morocco can supply the German market during that window, Moroccan exporters can make lots of profits.





The United Kingdom market

The UK market is the second leading EU country in raspberries imports after Germany. The total imports of the UK market from all destinations amounted to 8.35 thousand tons in 2007. Imports to the UK markets have increased by more than three folds since 2001. The main suppliers are Spain, the USA and the Netherlands (figure 17). The data shows that small shipments of Moroccan raspberries have entered to the UK market in 2007.

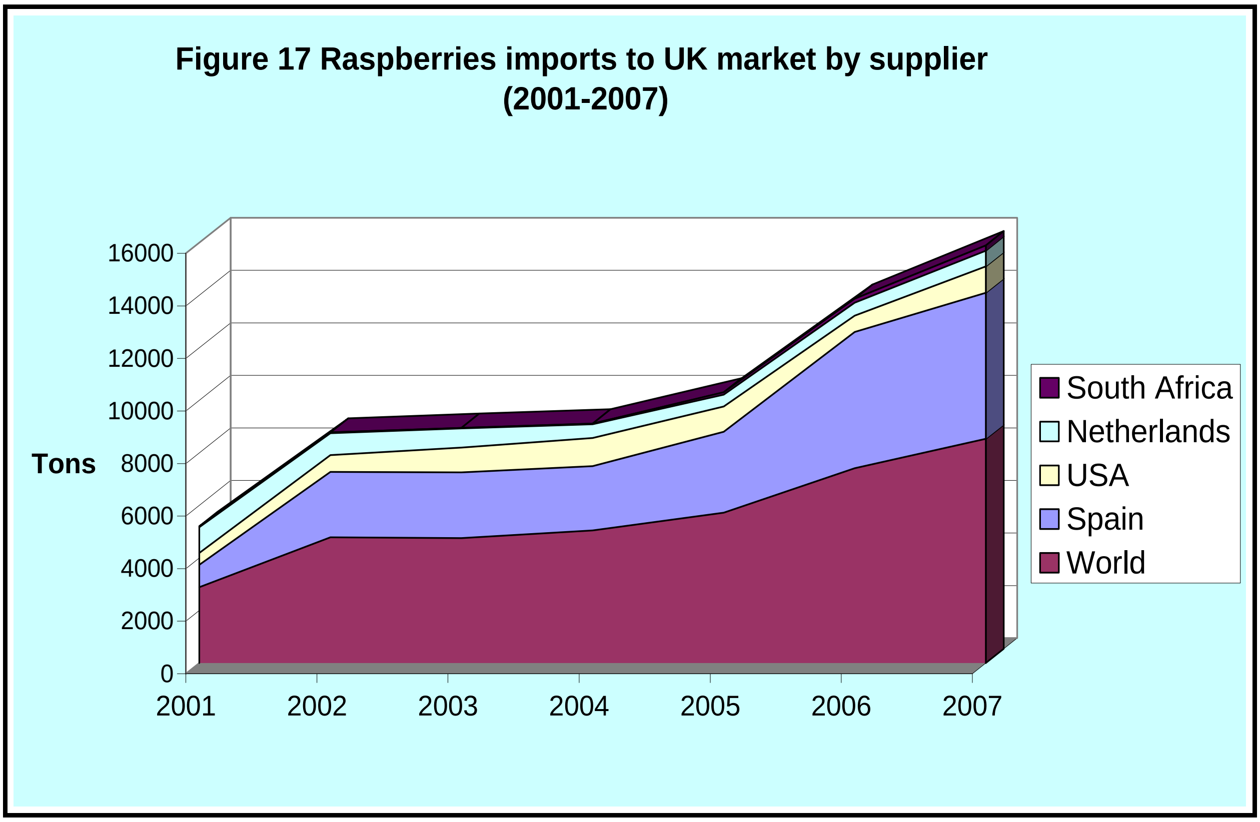


Figure 18 shows the monthly distribution of raspberries imported to the UK market by origin. Not like the Germany market, the chart shows that much of the imports from the different sources take place during the window from January to July. The main supplier during this window is Span which starts in early December and continues until July. This means that Morocco can get into the market and compete easily with Spain during the same market window (winter season-off-season) and benefit from the high prices during this period. As indicated in figure 19, the raspberries prices originated from Spain are higher than the average prices of all suppliers in the UK market and is the highest among all competitors during the months of October, November and December. This means that if Morocco can supply the UK market during that window, Moroccan exporters can make lots of profits.

Figure 18 Monthly supplies of raspbarries in UK market by origin (2007/2008)

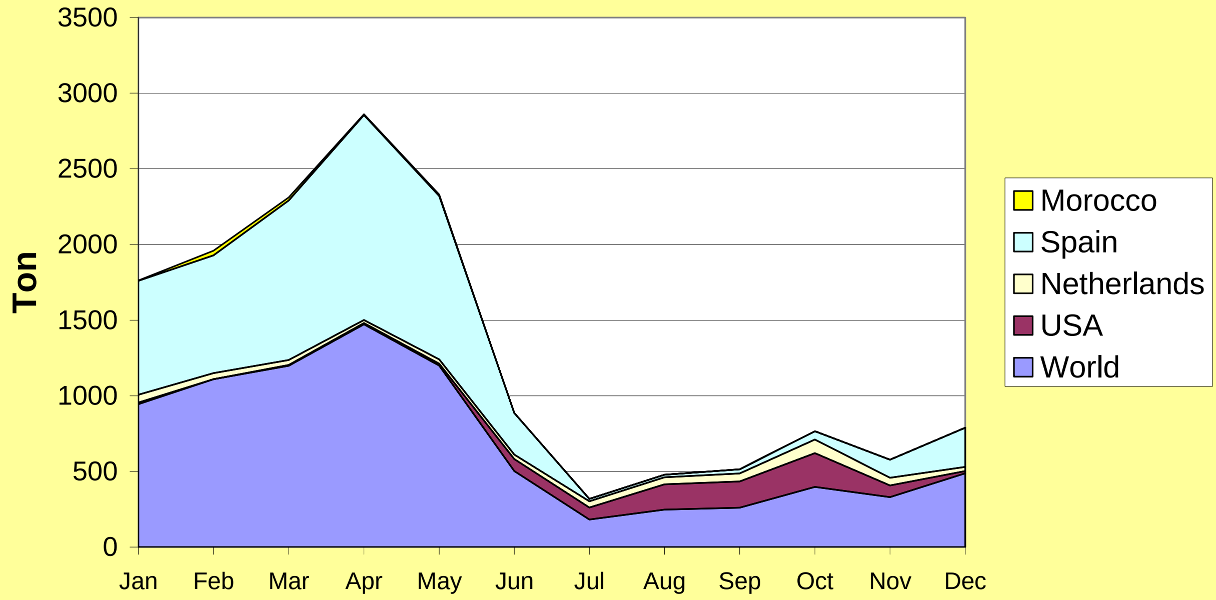
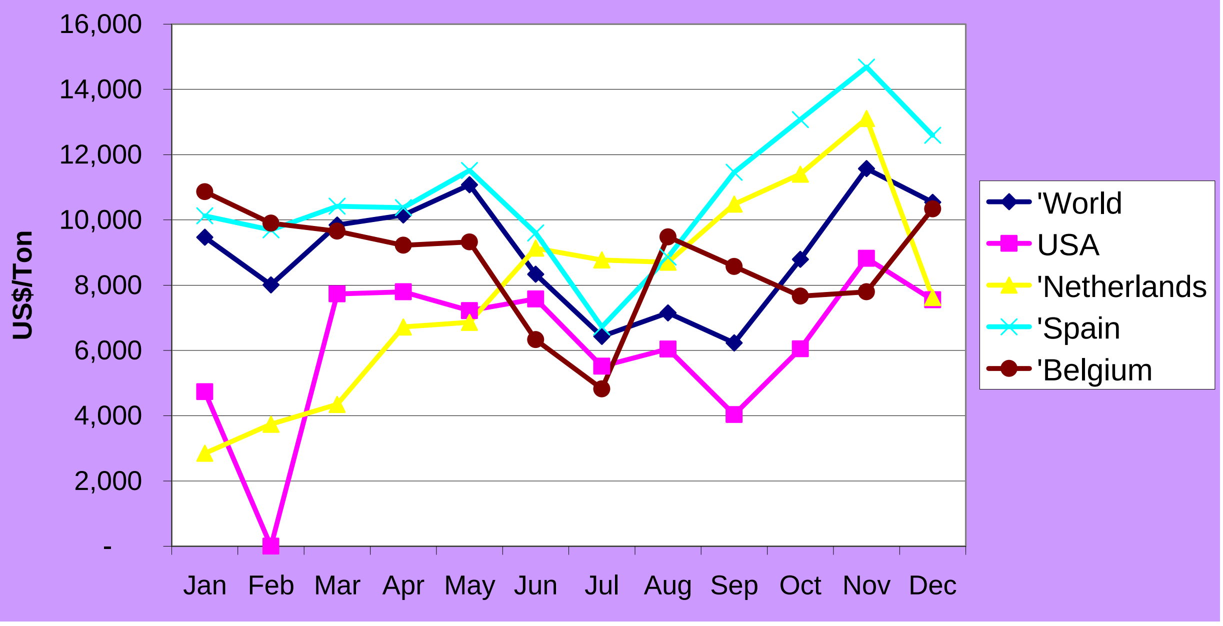


Figure 19 Unit cost (US$/ton) of raspberries in the UK market by origin (2007/2008)



The French market

France is another important EU market in raspberries imports after Germany and the UK. The total imports of the French market from all destinations amounted to 5.78 thousand tons in 2007. Imports to the French markets have increased by more than four folds since 2001. The main suppliers are Spain, Germany and the Netherlands. The data shows that there are increasing amounts of Moroccan raspberries entering the French market since 2003.

Figure 20 Raspberries imports to the French market by supplier (2001-2007)

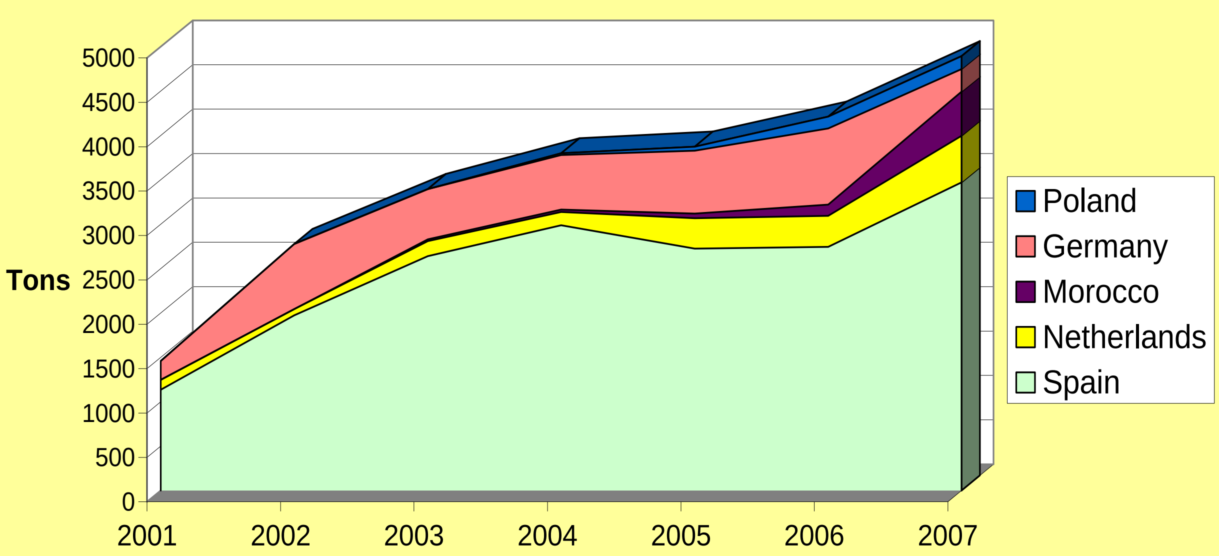


Figure 21 shows the monthly distribution of raspberries imported to the French market by origin. The chart shows that much of the imports are concentrated in two windows: 1) a large one during September-November; and 2) a much smaller one extended from January to July. The main supplier during the two windows is Spain. Once again, this means that Morocco can get into the market and compete easily with Spain during the same two market windows and benefit from the high prices during this period. As indicated in figure 22, almost all year-round, the raspberries prices originated from Spain are higher than the average prices of all suppliers in the French market. The figure shows also that the Moroccan prices of raspberries are close to the average import prices.

Figure 21 Major monthly raspberries supplies to french Market by origin (2007/2008) in ton

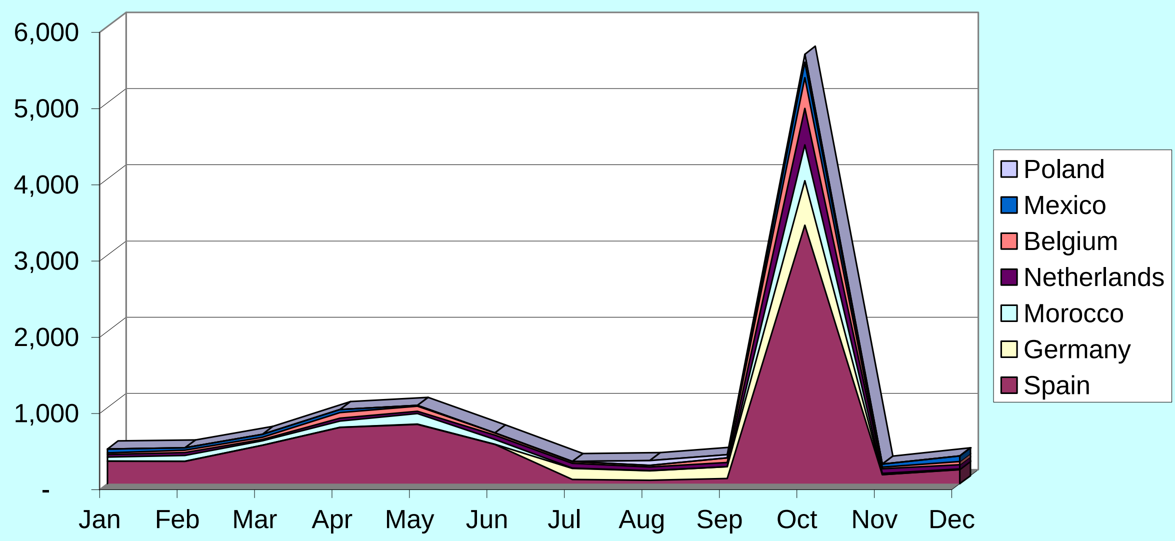
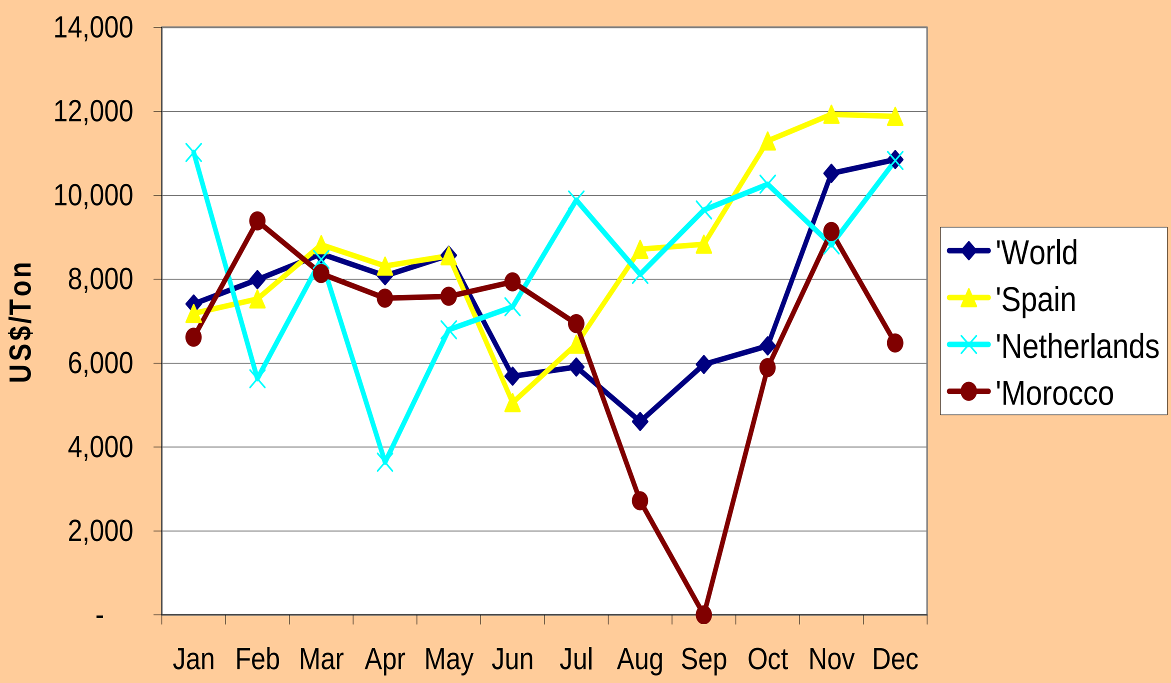


Figure 22 Unit cost (US$/ton) of raspberries in the French market by origin (2007/2008)



BLACKBERRIES AND BLUEBERRIES

World blackberries market

There is a very limited data available on the production, consumption and trade of blackberries and blueberries. A review that was conducted in 2005 based on a survey of worldwide blackberry production found that there were an estimated 20,035 hectare of blackberries planted and commercially cultivated worldwide which represents a 45% increase from estimated area in 1995. The study found that wild blackberries are still the main significant contributors to worldwide production with 8,000 hectares and 13,460 tons harvested in 2004[1].

It is believed that Europe is the major producer of blackberries. The same study cited in the footnote, reported that there were 7,692 ha of commercially cultivated blackberries in Europe with Serbia accounting for 69% of the area in Europe and also the largest producer in the world. Other largest producers in Europe include Hungary, the United Kingdom, Romania, Poland, Germany, and Croatia. The second largest area in blackberries production is North America where in 2005 there were 7,159 hectares of commercially cultivated blackberries with the USA accounting for 67% of the area planted. The study found that 65 percent of the blackberries cultivated in the USA were planted in Oregon, where trailing blackberries such as 'Marion' are most common.

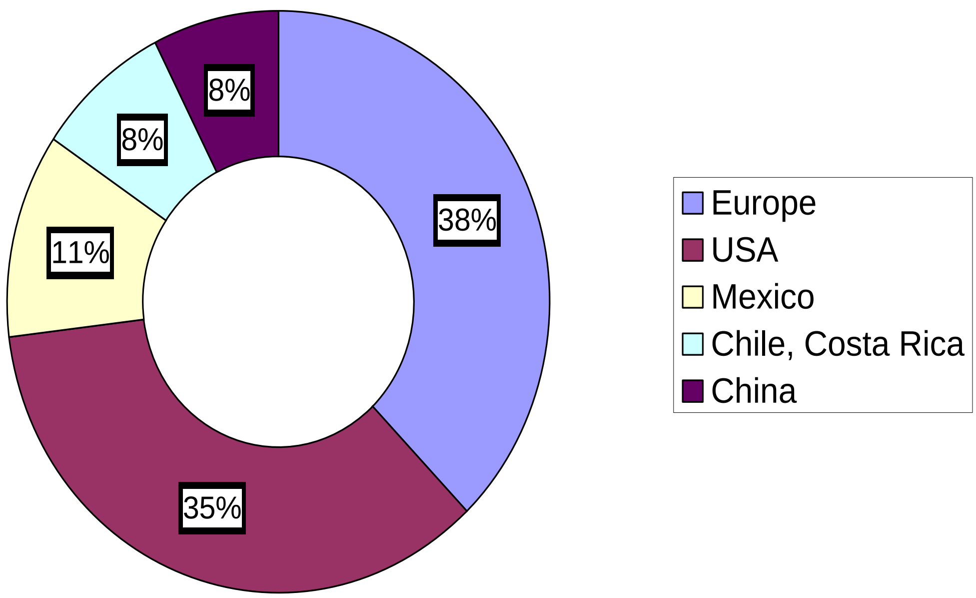
Mexico, Chile, Costa Rica and Ecuador have been heavily investing in blackberries cultivation. Cultivated area with blackberry in Mexico increased from 230 hectare in 1995 and is projected to reach to 5,000 hectare by 2015. Production systems in Mexico have been modified to extend the production season for 'Tupy' and other erect type cultivars from mid-October to early May for the fresh export market and May to June for their local market.

Cultivated area with commercial blackberries varieties in Chile increased by 50 percent during 1995-2005. In 2004, Chile exported 10,000 tons of blackberries from commercial and wild varieties.

The survey concluded that of the blackberry area planted worldwide, 50% of the cultivars were semi-erect, 25% erect, and 25% trailing types. 'Thornfree', 'Loch Ness', and 'Chester Thornless' were the most important semi-erect types, and 'Brazos' and 'Marion' the most common erect and trailing types, respectively. The survey projected that the worldwide area cultivated with commercial blackberries will amount to 27,032 hectares by the year 2015, not including production from harvested wild plants. Figure 23 includes the distribution of worldwide cultivated area with blackberries in 2005 based on this survey.

[1] Strik, B.C., Finn, C.E., Clark, J.R. and Pilar Bañados, M. 2008. WORLDWIDE PRODUCTION OF BLACKBERRIES. Acta Hort. (ISHS) 777:209-218 http://www.actahort.org/books/777/777_31.htm

Figure 23 Worldwide cultivated area with blackberries in 2005 (ha)



Major importers of blackberries in the EU market

The United Kingdom market

The UK market is the leading EU country in blackberries imports. The total imports of the UK market from all destinations amounted to 5.18 thousand tons in 2007. Imports to the UK markets have increased by more than ten times since 2001. As indicated in table 16, the main suppliers are Ireland, Mexico and the Netherlands. The data shows that a small shipment of Moroccan blackberries has entered the UK market in 2007

Table 17 Major suppliers of fresh Blackberries, Mulberries and Loganberries to the UK market

Exporters	2001	2002	2003	2004	2005	2006	2007
World	410	493	698	603	1,677	2,289	5,182
Ireland	0	2	1	2	2	44	2,393
Mexico	-	4	22	91	562	1,040	1,295
Netherlands	240	325	262	245	544	686	776
Spain	36	71	150	159	246	293	403
Belgium	33	18	74	24	223	91	113
France	22	4	16	9	18	5	52
Morocco	-	-	-	-	-	3	51

Source: International Trade Center (ITC), http://www.trademap.org/

Figure 24 shows the monthly distribution of blackberries imported to the UK market by origin. The figure shows that the majority of the imports from the different sources take place during the window from January to April. The main suppliers during this window are Ireland, Mexico and Morocco. As indicated in figure 25, the prices of blackberries originating from Spain are the highest of all suppliers in the UK market especially in January and April. Despite the small volume supplied by Morocco during Jan-April, Moroccan blackberries prices were the lowest as indicated in the graph.

Figure 24 Blackberries imports in the UK market (2007-08)

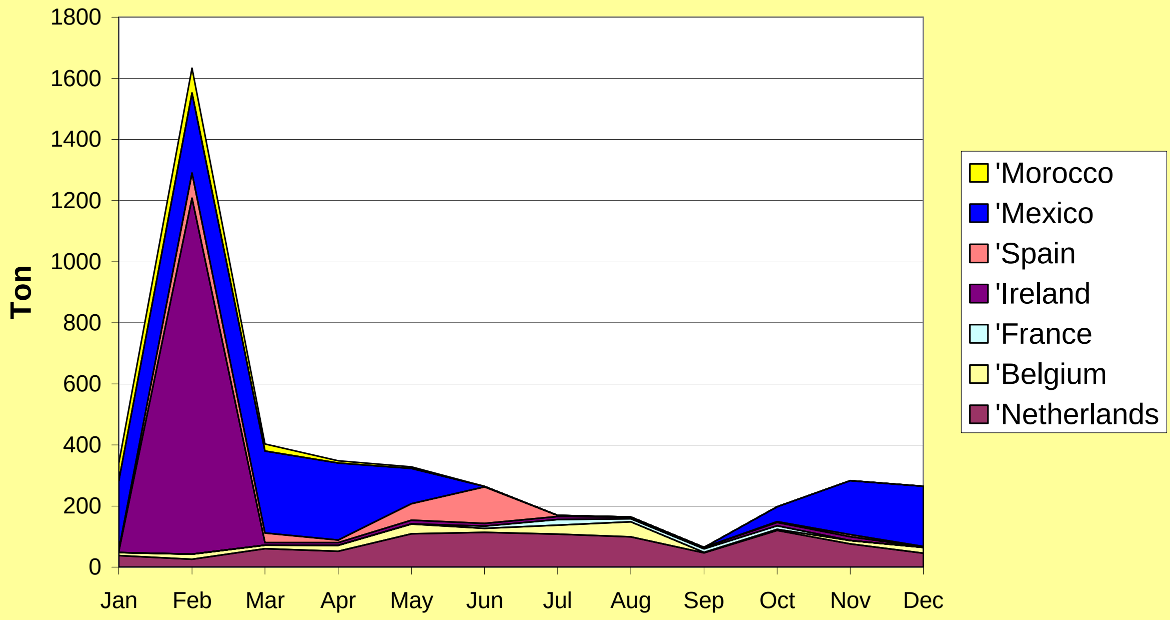
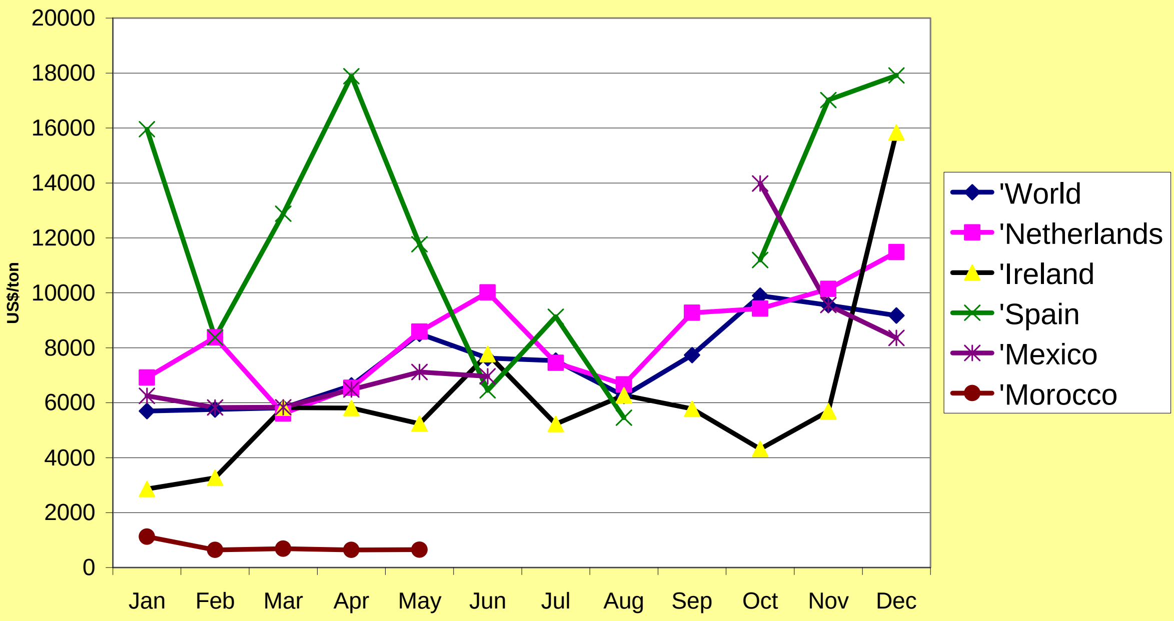


Figure 25 Unit cost of imported blackberries by origin (US$/ton)



Other EU markets

Tables 18 through 20 show the imported volume of blackberries, mulberries and Loganberries to the other major EU markets (the Netherlands, Germany and France). The imports are reported by the country of origin. The total amount of berries imported to the three markets reached 2,764 tons in 2007. Spain, Serbia and Mexico are the major exporters to these markets.

Table 18 Major suppliers of fresh Blackberries, Mulberries and Loganberries in the Netherlands Market

Exporters	2001	2002	2003	2004	2005	2006	2007
World	235.4	318	267	346.3	434.2	1229.6	1662.1
Serbia	0	0	0	0	0	667.8	956.8
Mexico	0	4	84.5	207.7	245.2	429.5	503.9
Belgium	56.9	59.6	32.1	37.6	68.4	23.9	99.9
Spain	4.9	2.9	1.2	8.2	40.9	59.1	37.2
Guatemala	27.2	48.8	25.9	13.7	13.3	14.3	31

Source: International Trade Center (ITC), http://www.trademap.org/

Table 19 Major suppliers of fresh Blackberries, Mulberries and Loganberries in the German Market

Exporters	2001	2002	2003	2004	2005	2006	2007
World	533	801.9	535.6	1565.2	714.2	765	679.6
Spain	15.3	26.5	30.6	20.2	46.6	54.1	220.5
Serbia	0	0	0	0	23.5	101.8	215.9
Netherlands	106.7	93.5	144.3	111.8	88.5	81.7	97.4
Italy	115.6	222.3	131	214.2	141.5	94.3	83.1
Mexico	0.1	1.6	0.6	4.8	20.7	26.2	27.9
Austria	5.9	224.4	1.8	3.1	9.4	1.4	10.9

Source: International Trade Center (ITC), http://www.trademap.org/

Table 20 Major suppliers of fresh Blackberries, Mulberries and Loganberries in the French Market

Exporters	2001	2002	2003	2004	2005	2006	2007
World	457.8	640.6	185.8	1157.5	263.1	299.9	405.1
Mexico	0	0.9	2.9	3.5	27.6	81.8	152.7
Germany	124.6	75.5	24.1	151.9	31.5	54	106.4
Belgium	101.9	75	47.2	358.8	67.8	29.9	59.2
Spain	144.5	436	60	599.1	58.4	87.2	25.2
UK	0	0	0	0	0.1	0	24
'Netherlands	69.5	37.2	21.5	25.6	33.5	20.3	18.5

Source: International Trade Center (ITC), http://www.trademap.org/

Figure 26 shows the monthly distribution of blackberries imports from the main sources to the Netherlands, Germany and France markets. It is clear from the chart that much of the imports from the different sources take place during the window from June to September. The major supplier to the Netherlands market is Serbia during the months of July and August. Spain is the major supplier to the German market.

Figure 27 portrays the monthly unit cost per ton of blackberries in the three markets. The monthly price trends in the three markets are very close. The lowest prices prevail during July-August and the highest during January to May, especially in the German market

Figure 26 Monthly distribution of imported blackberries to the Netherlands, Germany and France in 2007

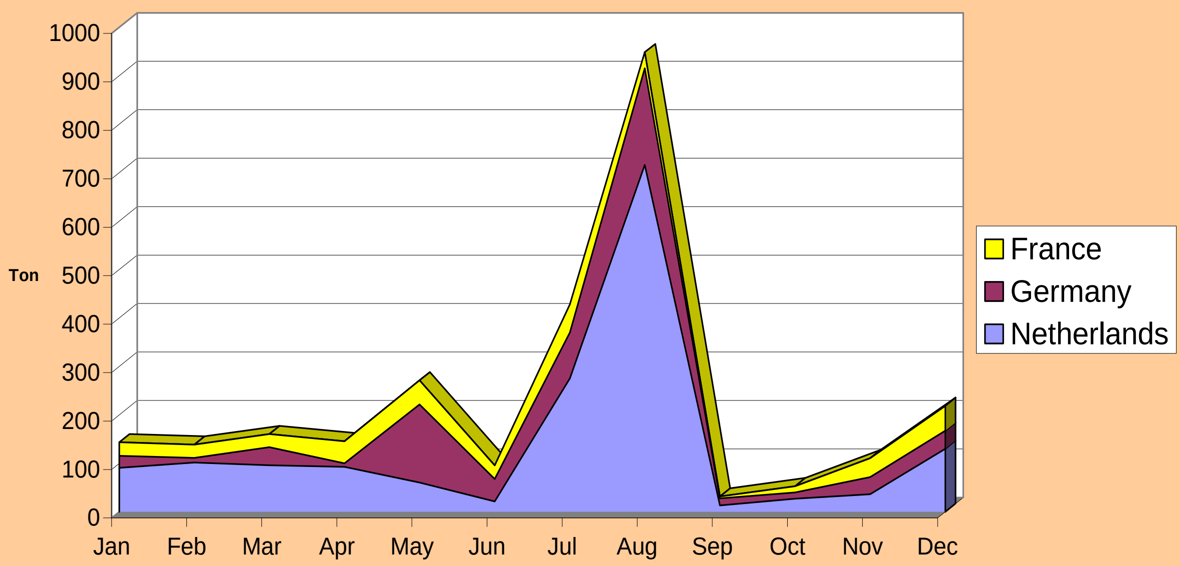
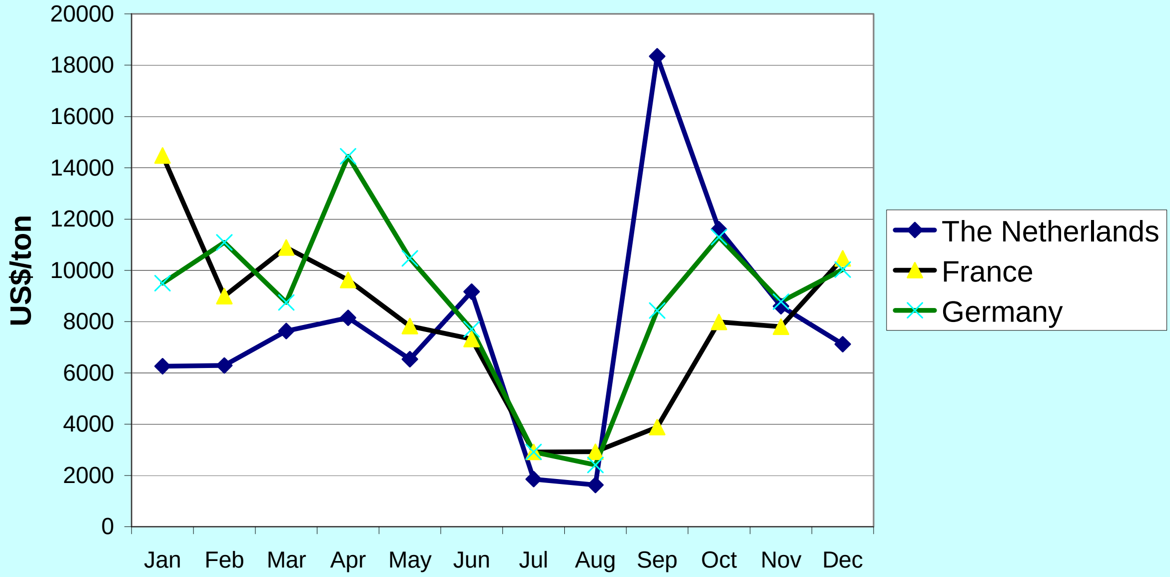


Figure 27 Monthly unit cost of imported blackberries by orgin in the Netherlands, France and Germany markets (US$/ton) in



SEASONAL WHOLESALE PRICES

This section of the report analyzes seasonally fluctuating wholesale prices and their effects on the profitability of the berries exports in the major EU markets. Detailed and reliable wholesale prices data are available only for the UK market. The UK market can be considered as a representative to all other major EU markets.

FRESH STRAWBERRIES

Profit per one kilogram is estimated as the difference between the wholesale price at the destination market in the EU and the breakeven cost of production per one kilogram of exported berries from Morocco. The breakeven cost is the sum of production costs, postharvest handling, packaging and packing, transport and handling and wholesale marketing fees. Interviews with Moroccan strawberries producers indicated that the average breakeven cost of strawberries at any of the EU markets is around US$ 1.5 per one kilogram.

Figure 28 shows the average weekly wholesale prices of strawberries at the New Covent Garden Market (NCG) in the UK during 2005-2009. Strawberries prices at the NCG market are reported during the off-season window. During this window strawberries are supplied mainly by three countries: Egypt, Morocco, and Israel.
Supplies from the three countries start to enter the market at week number 46 (third week of November) and continue until week number 11 of the next year (third week of March). The chart shows that prices of the three countries during the first eleven weeks of the year are very close and move together in the same trend. While during the last seven weeks of the year, prices of Israeli strawberries are the highest.

Figure 28 Weekly strawberries prices in the New Covent Garden market (2005-2009)

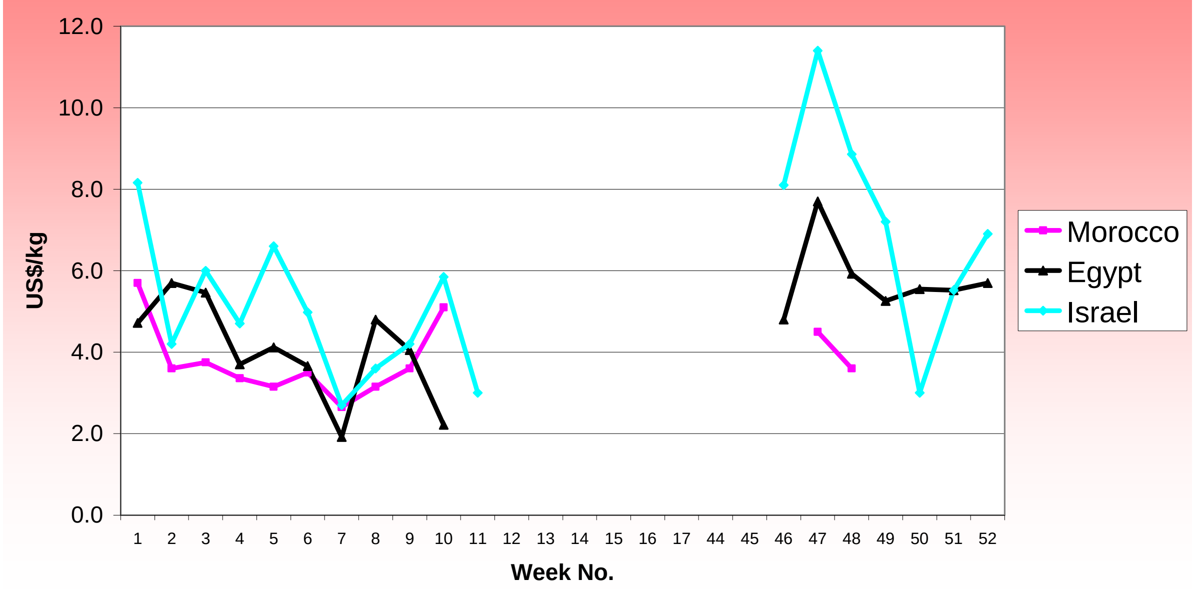
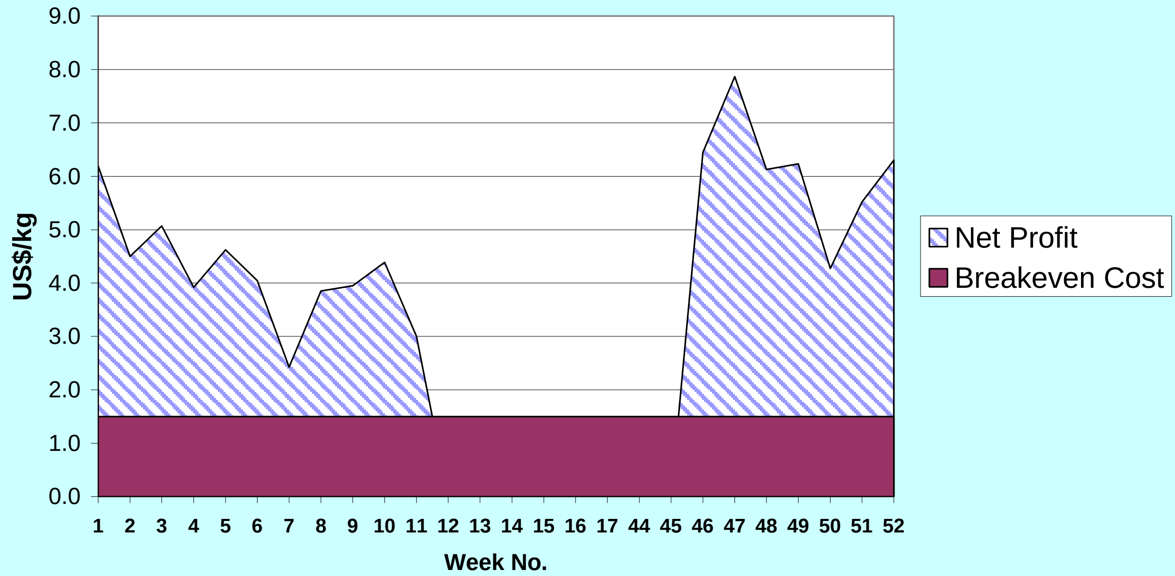


Figure 29 shows the net profits which can be achieved by a Moroccan strawberry exporter from a sale of one kilogram of fresh strawberries in any week in the UK during the market window. The profit per kilogram is estimated based on the average wholesale price of the three major suppliers during the market window in the NCG. The solid area displays the breakeven cost per kg. The shaded blue area presents the net profits per kilo after subtracting out the production costs, tariffs, handling and wholesale marketing fees. Thus a Moroccan exporter would have made approximately US$ 3.4 per kg net profit in January, US$ 2.2 per kg on sales during February, and US$ 2.6 per kg of net profit in March. While during the other market window, the exporter would have made an average of US$ 5.2 during the last two weeks in November and the first two weeks of December.

Figure 29 Net profit to Moroccan strawberries exporter in the UK market



FRESH RASPBERRIES

As in the case of strawberries, profit per one kilogram is estimated for raspberries using the same approach mentioned above. Interviews with Moroccan raspberries producers indicated that the average breakeven cost of raspberries at any of the EU markets is estimated at about US$ 1.55 per one kilogram.

The main raspberries supplier to the UK market is Spain. Nevertheless, the price data of the NCG market indicates that some raspberries from Morocco were sold at the first week of 2009 at an average price of 120 pence per 125 grams pack (or US$14.4 per kilogram). Figure 30 shows the average weekly wholesale prices of raspberries at the New Covent Garden Market (NCG) in the UK during 2005-2009. The price information indicates that Spain is the sole supplier of raspberries in the NCG with a couple of shipments during 2009 from Morocco and Columbia. The average weekly price over the period 2005-2009 ranged from a minimum of US$ 7.4 to a maximum of US$ 17.4 per kilogram. The year round average weekly price at this market is US$ 11.6 per kg. The chart shows that the price variation over the supplying period is very low.
Figure 31 shows the net profits which can be achieved by a Moroccan raspberries exporter from a sale of one kilogram of fresh raspberries in any week in the UK during the market window. The profit per kilogram is estimated based on the average wholesale price of the three major suppliers during the market window in the NCG. The solid area displays the

breakeven cost per kg. The shaded yellow represents the net profits per kilo after subtracting out the production costs, tariffs, handling and wholesale marketing fees (breakeven cost). Thus a Moroccan exporter would have made a minimum of US$ 5.9 to a max of US$ 15.8 per kg net profit during the potential export window.

Figure 30 Raspberries wholesale prices in the New Covent Garden market (2005-2009)

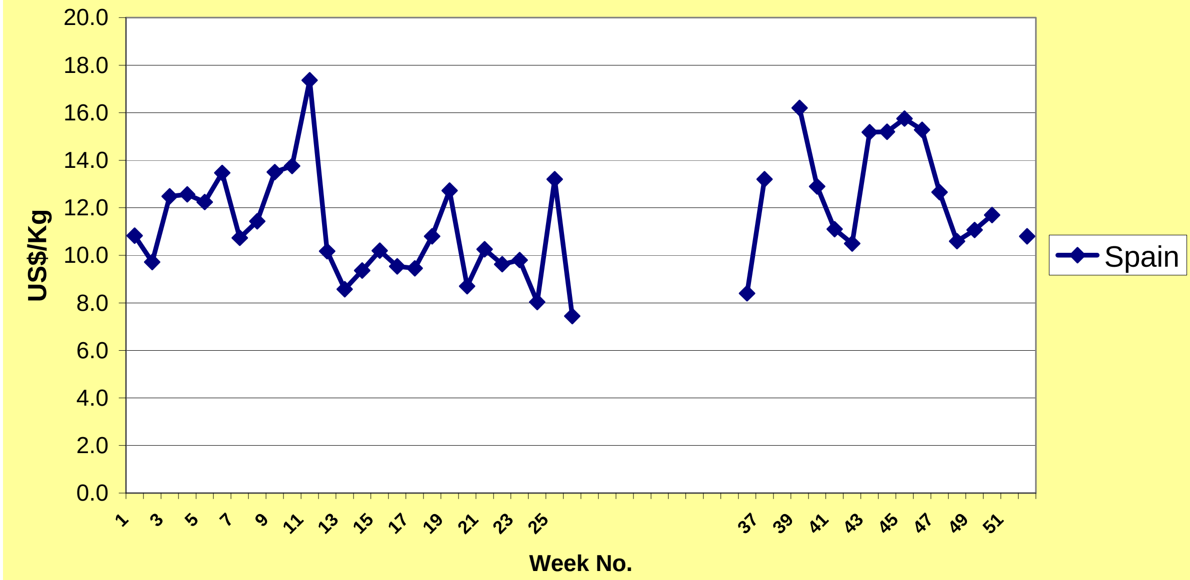
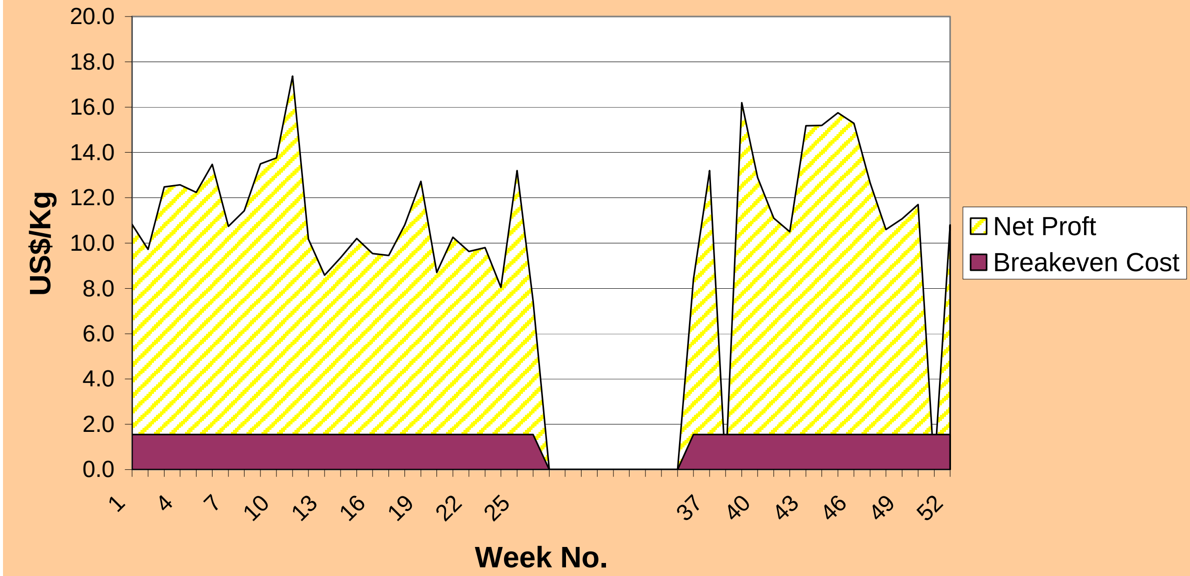


Figure 31 Net profit to Moroccan raspberries exporter in the UK market



FRESH BLACKBERRIES

Interviews with Moroccan blackberries producers indicated that the average breakeven cost of raspberries at any of the EU markets is estimated at about US$ 1.45 per one kilogram.

The two major blackberries suppliers to the UK market are the Netherlands and Mexico. The price data of the NCG market shows that Mexico is a new comer to the UK blackberries market. Figure 32 shows the average weekly wholesale prices of blackberries at the New Covent Garden Market (NCG) in the UK during 2005-2008. The price information indicates that Mexico and the Netherlands do not compete during the same market window. It is clear that Mexico dominates the winter window from November until the third week of May. The average weekly price over the period 2005-2008 ranged from a minimum of US$ 9.3 to a maximum of US$ 334 per kilogram. The year round average weekly price at this market is US$ 15.8 per kg. The chart shows that the price variation over the supplying period is very low.

Figure 32 Blackberries wholesale prices at New Covent Garden market (2005-2008)

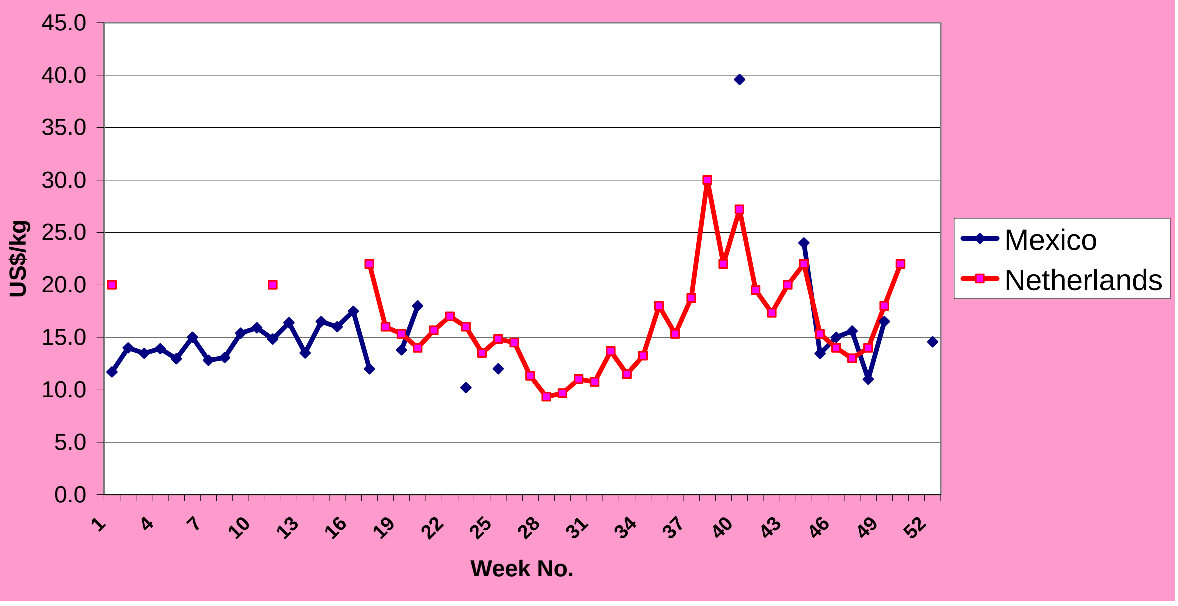
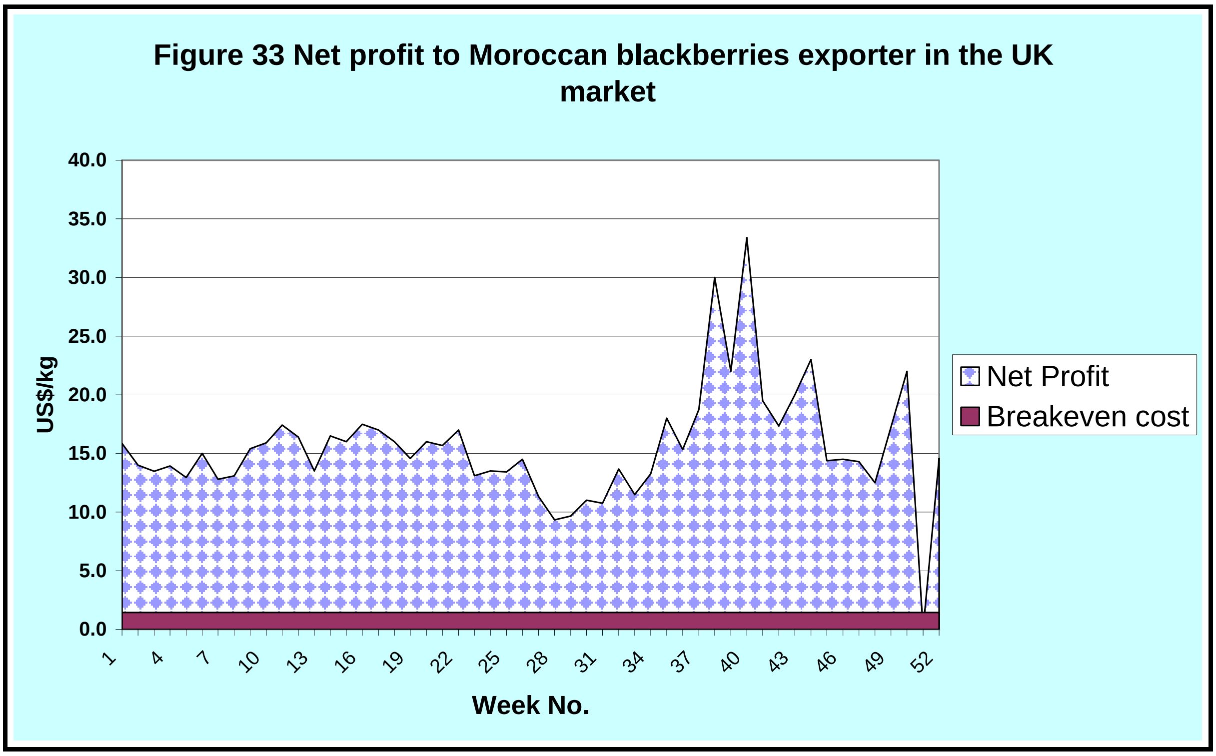


Figure 33 demonstrates the net profits which can be achieved by a Moroccan blackberries exporter from a sale of one kilogram of fresh blackberries in any week in the UK during the market window. The profit per kilogram is estimated based on the average wholesale price of the two major suppliers during the market window in the NCG. The solid area displays the breakeven cost per kg. The shaded light blue area represents the net profits per kilo after subtracting out the production costs, tariffs, handling and wholesale marketing fees (breakeven cost). Thus a potential Moroccan exporter of blackberries would have made a minimum of US$ 7.9 to a max of US$ 31.9 per kg net profit during the potential export window.



FRESH BLUEBERRIES

Data on blueberries production and trade is very limited. Interviews with Moroccan blackberries producers indicated that the average breakeven cost of bluepberries at any of the EU markets is estimated at about US$ 1.66 per one kilogram.

There are three major blueberries suppliers to the UK market, Chili, Argentina and New Zealand. In other words, the whole blueberries supplies come from the southern hemisphere. Figure 34 shows the average weekly wholesale prices of blueberries at the New Covent Garden Market (NCG) in the UK during 2005-2009. The price information indicates that the three suppliers compete for the same market window. It is also clear that the New Zealand prices are the highest during the supplying window. The average weekly price over the period 2005-2008 ranged from a minimum of US$ 4.2 to a maximum of US$ 15.3 per kilogram. The year round average weekly price at this market is US$ 7.2 per kg.

Figure 35 shows the net profits which can be achieved by a Moroccan blueberries exporter from a sale of one kilogram of fresh blueberries in any week in the UK during the market window. The profit per kilogram is estimated based on the average wholesale price of the two major suppliers during the market window in the NCG. The solid area displays the breakeven cost per kg. The shaded light blue area represents the net profits per kilo after subtracting out the production costs, tariffs, handling and wholesale marketing fees (breakeven cost). Thus a potential Moroccan exporter of blackberries would have made a minimum of US$ 2.6 to a max of US$ 13.6 per kg net profit during the potential export window.

Figure 34 Blueberries wholesale prices at New Covent Garden market (2005-2009)

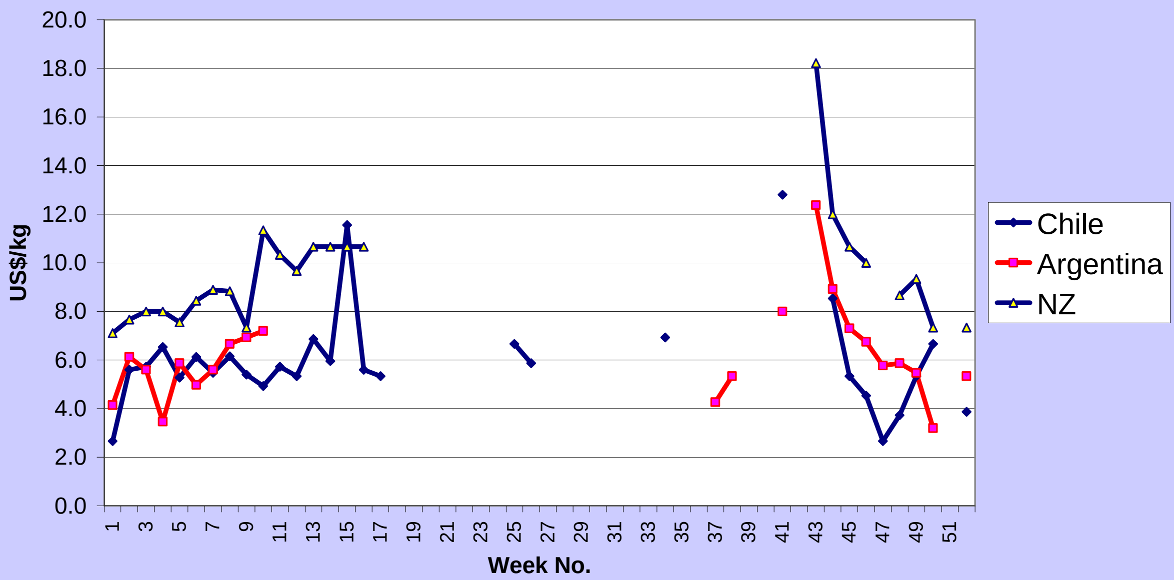
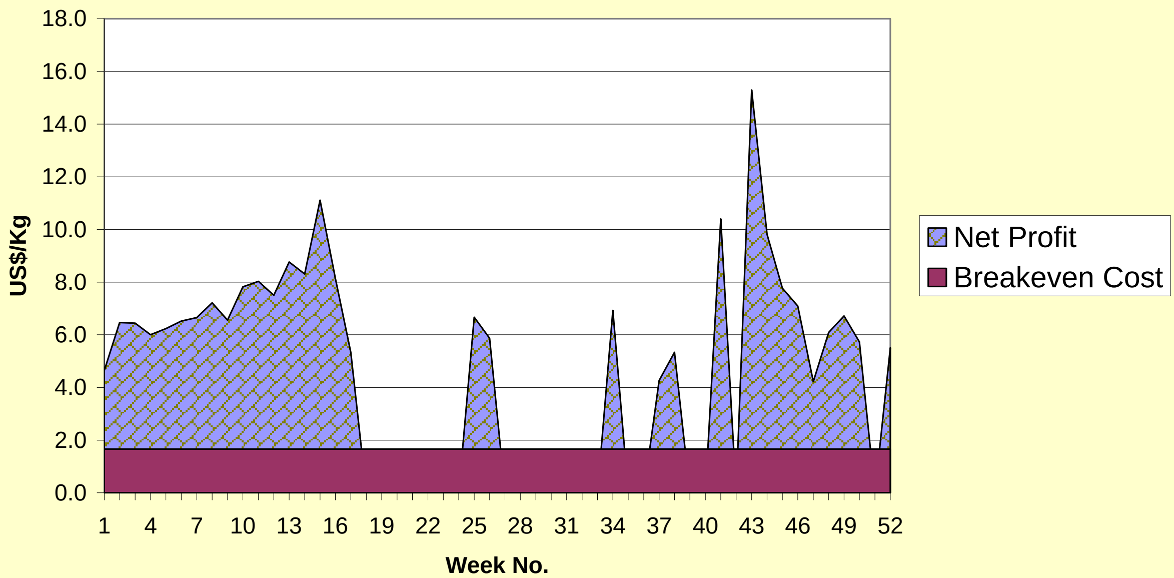


Figure 35 Net profit to Moroccan blueberries exporter in the UK market



CONCLUSIONS AND RECOMMENDATIONS

The most effective export development business always starts in the marketplace and builds backwards local production, and not the other way round. This concept is also true for institutions and enterprise players, the most important institutions are those in the marketplace. The horticultural export industry in Morocco has invested heavily in building a good reputation in international markets, especially in the EU markets. However, to keep the competitive edge, the industry has to be always at the marketplace to build backward its' production system that meets the ever-changing consumption pattern and the new demands of consumers.

Morocco enjoys a great comparative advantage in producing a wide range of horticultural products that are demanded in world markets. New varieties and types of berries are among some of the high value crops that can be produced in the country and benefit from the many advantages of Morocco such as: 1) the proximity of the country to the EU markets which can be reached easily either by land, sea or air in a matter of hours; 2) favorable agricultural production condition represented by good weather, fertile soils and good quality of water; 3) low production costs in comparison to other competing countries in the region; 4) good knowledge in agricultural practices; 5) good infrastructure; and 6) trade agreements with the EU, African countries, Arab League, Agadir trade agreement and many other bilateral trade agreements.

This study was conducted to respond to the needs of the horticultural private sector. Some of the pioneering growers/exporters believe that new varieties and types of berries should be introduced to Morocco to boost exports and benefit from the above mentioned advantages. The main focus of this study is to study the international markets for fresh and frozen strawberries, raspberries, blueberries, and blackberries. In addition to the detailed analysis of the berries export markets, this report provides different sets of information that can help in improving the decision making process of the major players in the sector. The provided sets of data include: 1) monthly sales data in major markets by type (fresh, frozen); 2) price trends paid in the different European markets, by type at the wholesale level; 3) major competitor countries for blueberries, raspberries, and blackberries; 4) the timing and the size of the market windows for the different berries; and 5) the seasonality and level of profitability.

The following recommendations were based on the analysis of many sets of data and interviews with related stakeholders of berries business in Morocco. These recommendations should help berry producers to better position themselves in European markets and face international competition.

1. The unmet profitable demand analysis showed that there are significant opportunities for expanding exports of the different types of berries to the EU markets. This would suggest that growers and exporters expand their production and export facilities to benefit from these opportunities.
2. Any new expansion in the berries production should take in consideration the exact markets demands in terms of varieties and the exact timing of meeting demand at the targeted markets (market windows). The above analysis showed that Morocco can compete with other suppliers such as Spain in the German, UK and France markets. However, this would call for more understanding of the end-customers tastes and regional preference in various target markets

3. Moroccan growers/exporters should benefit from the experience of other countries in identifying the demanded varieties in the targeted markets. For instance, countries like Chile, Mexico and Argentina are currently expanding cultivation of new varieties of blackberries and blueberries. Other Eastern European countries like Serbia have a vast experience in raspberries and blackberries production. For instance, some extensive work has been conducted on raspberries varieties such as Willamette, Meeker, and Heritage that are suitable for processing. Research work in Kosovo was conducted to assess blackberries varieties that can fit the demand for fresh and processing such as Chester, Cacak Thornfree and Black Stain. These cultivars may produce good yields and are not subject to many insect and disease problems; in addition, they might be demanded by buyers in international markets.
4. The berries industry should fully utilize the benefits from trade agreements with the Arab world and the USA. For instance, the countries of Gulf Cooperation Council (GCC) imported more than 8,000 tons of fresh strawberries and 10,160 of frozen strawberries in 2007. Trade statistics show there are no Moroccan strawberries exports to the GCC area.
5. Some of the exporters complain from delays at the Tangiers port (point of export to Spain). They claim that refrigerated trucks are kept waiting for long hours which negatively affects the quality of the product and adds more costs. One of the solutions that could minimize the port inspections processes is to perform the various types of inspection at the packing house. The solution was followed in Egypt where the security and safety inspection is conducted at the packing house by representatives from the customs and other related institutions. After completion of the inspection process at the packing house, the refrigerated truck is sealed by the inspector and then it moves into the port of export smoothly.
6. Morocco has succeeded to export high quality produce to many countries in Europe. However, the conducted data analysis showed that there are still tremendous opportunities that still not captured by the industry due to the lack of marketing information or detailed market analysis. This should call for establishing a specialized market intelligence system that could help Moroccan exporters reduce their dependence on a few target markets and to acquire additional details on the sophistication of demand on berries and other horticultural products in general.

REFERENCES

Fresh Produce: Prices and Journal in United Kingdom
WWW.FRESHINFO.COM

USDA International Wholesale Market Price Report
HTTP://WWW.AMS.USDA.GOV./FV/MNCS/

Today's Market Price: International markets
HTTP://WWW.TODAYMARKET.COM/

Eurostat: Data base of Import and Export to and from the E.C.
HTTP://FD.COMEXT.EUROSTAT.CEC.EU.INT/XTWEB/SETUPDIMSELECTION.DO#

Attache Reports FAS, USA
HTTP://WWW.FAS.USDA.GOV/SCRIPTSW/ATTACHEREP/DEFAULT.ASP

Production and Exports from Morocco
HTTP://WWW.EACCE.ORG.MA/DEFAULT.ASP

FAO (United Nations) Database (Production and Trade)
HTTP://FAOSTAT.FAO.ORG/

ANNEXES

Annex 1: Terms of reference

1. Background

The Morocco Integrated Agriculture and Agribusiness Program (IAA), USAID Task Order No. 608-M-00-05-00043-01 under the MOBIS IQC, is managed by Chemonics International Inc. IAA is working to improve the ability of Moroccan agriculture, agribusiness, and related industries to better compete in local and foreign markets. Efforts focus on market driven commodity and livestock sectors and supply chain management, incorporating improvements in public policy formulation, and the performance of service providers and professional organizations. The goal is to create jobs and increase incomes for farmers, workers, and entrepreneurs.

The project is expected to achieve results in four major areas:
1) Improved public policies and institutions (CLIN 1)
2) Increased agriculture and livestock production (CLIN 2)
3) Improved competitiveness in agro-processing industries (CLIN 3)
4) Enhanced capacity to support competitive value chains (CLIN 4)

The project is also expected to achieve results in the following USAID Economic Growth Operational Plan Indicators:

- Program Area: Agriculture
- Element: EG 5.1 Agriculture Enabling Environment (CLIN 1)
- Element: EG 5.2 Agricultural Sector Productivity (CLINs 2-4)

To achieve these results, the project focuses on five main value-chains: olives (olive oil, table olives), lamb meat, capers, berries, and aromatic and medicinal plants, and three geographic regions (Oriental, Gharb-Loukkos, and Saïss).

Berry consumption is increasing dramatically in the EU, the US, and Asia and particularly off-season – winter and early spring - market prices for fresh berries are very attractive for exporters in the EU and US. New berry varieties have been developed that are adapted to sub-tropical climates where there is relatively little winter chilling. Florida and coastal zones of California where the climate is similar to that of Morocco now produce berries in the early spring off season. Through the USAID-funded program, some of these new berry varieties have been introduced to Morocco for trials. Others producers have introduced some patented varieties and are producing enough quantities to be sold in competitive markets.

To be competitive in the global marketplace, Moroccan berry producers need access to reliable, analytical data which evaluates current and future market opportunities for the export of Moroccan berries. The goal of this assignment is to provide Moroccan producers with current information on markets for Moroccan fresh berries as well as an analysis on Morocco's competitiveness in these markets against current and future players in the berry value chain. This assignment builds on the Observational Study Tour (OST) and is a direct response to a request from OST participants for a berry market study. This assignment will compliment the berry variety study completed by Dr. Mark Gaskell and will also compliment the logistics study that will begin in September.

2. Issues to be addressed in this assignment

The need for a strong market study on the alternative berry varieties introduced by the project has been identified by the private sector and key institutional partners. This study will analyze international markets in which Morocco has a competitive advantage for the export of fresh berries and will analyze Morocco's competitors vis à vis these markets. This study will serve as a complimentary study to the logistics study currently underway and will give Moroccan berry producers a clear path to follow as to the production using the new varieties available and appreciated by the international market.

This assignment will provide the specialized technical expertise needed to advise Moroccan berry growers on where the greatest market demand for different berry varieties are originating from and what the best windows are for exporting to these markets at premium prices.

3. Tasks to be completed

Under this Scope of Work, the Consultant shall perform, but not be limited to, the specific tasks specified under the following categories:

- Release the tendencies, monthly and annual, international market and European market of strawberries, of blueberries, raspberry, and blackberries.
- Complete a study of international markets for fresh and frozen raspberries, blueberries, and blackberries.
- Provide monthly sales data in major markets by type (fresh, frozen) and variety
- Provide price trend paid in the different European markets, by type and by variety at the wholesale level.
- Complete an analysis of competitor countries for blueberries, raspberries, and blackberries. The analysis should include what countries the competitors are exporting to, during what windows, at what wholesale prices. The analysis should also include time required for shipments from these countries to major markets in an attempt to gauge the shelf-life of competitor products.
- Make targeted recommendations to berry producers which enable the producers to: better position themselves in European markets and other interesting markets; face international competition; provide data on best windows for exports, and most demanded varieties at the wholesale level.
- The consultant will present the results of the study in a seminar to be held in Morocco at the end of the assignment.

4. Duration of assignment

The duration of this assignment is from October 2008 to November 2008. LOE will not exceed 25 days for this assignment.

5. Program Activities & Deliverables

The substance, findings and recommendations with respect to the above mentioned tasks shall be delivered by the Consultant to Fouad Rachidi, Field Activities Coordinator, within 10 days of completing the above assignment. All deliverables must conform to USAID branding report standards and should be submitted electronically to the following email addresses: frachidi@chemonics.com, mkerby@chemonics.com, and eellis@chemonics.com.

6. Supervision

The consultant will be under the supervision of Fouad Rachidi, Field Activities Coordinator, during his/her stay for the project.

7. Location of the assignment

The location of this assignment is Rabat and the Gharb-Loukkos region of Morocco. Most of the work is a desk study the consultant can do from his country of Origin. However, the consultant will be based in Morocco for the time needed for some local data collection, the seminar presentation and for finalizing the final report. .

8. Qualifications

The Consultant shall have the following minimum qualifications:

- Advanced degree in agricultural economics or similar
- Knowledge of international agriculture markets
- Knowledge of Moroccan agribusiness
- Experience with marketing studies for agrifood products
- Knowledge of international market requirements for fresh fruits