Fresh fruit and vegetables:

The EU market for papaya

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Report summary
This CBI market survey discusses the EU market for papaya. The main findings are summarised below.

- The EU consumption market for papaya is steadily expanding but consumption is still low compared to other tropical fruit. However, as consumers get more acquainted with minor exotic fruits such as papaya, consumption is expected to increase in almost all EU countries.
- The United Kingdom (UK) and Germany are the largest markets but apparent consumption decreased between 2003 and 2007. Spain and Portugal recorded highest growth rates in apparent consumption.
- The market for ready-to-eat papaya (pre-cut and packaged as fruit salad) is very small but growing.
- The EU market relies completely on imports. Between 2003 and 2007, imports of papaya reached 51 thousand tonnes with a value of €72 million. This is an increase of 8% in value compared to 2003, while the volume was the same.
- Developing countries (DCs) accounted for 72% of the imports of papayas into the EU, the rest is intra-EU trade. Brazil is, by far, the leading papaya supplier to the EU. Other major developing country suppliers are Thailand, Ecuador, Côte d'Ivoire and Ghana.
- The Netherlands is the leading importer and distributor of papaya in the EU. The UK and Germany are also large importers and have large consumption markets.
- Supermarkets, greengrocers and street markets are the main outlet for papaya. The sales of papaya show a peak during the Christmas and Easter holidays. The availability of papaya differs per EU country. The trade in papaya is not as concentrated as in other tropical fruits, such as bananas or pineapples.

This survey aims to provide exporters of papaya from DCs with product-specific market information about gaining access to the EU market(s). By focusing on the EU market(s) for one product, this document provides additional in-depth information, that is complementary to the more general information and data provided in the CBI market survey 'The fresh fruit and vegetables market in the EU', which can be downloaded from http://www.cbi.eu/marketinfo.

Detailed information on papaya is given in Appendix A. This survey discusses the EU in general and the following markets in particular: the Netherlands, the UK, Germany, Portugal, Spain and France.

1 Market description: consumption and production

Consumption

The EU is the second largest market for papaya in the world after the USA in terms of imported quantities and the largest in terms of imported value. The USA is a major market because of the presence of a relatively large group of Hispanics in the USA which are used to eating papaya. Until 2000, papaya was relatively unknown in the EU and scarcely available. Currently, consumption of papaya is still modest but increasing and yet many EU consumers are not aware of papaya.

In 2007, the total apparent consumption[1] of papaya in the EU was 37 thousand tonnes, with a value of €53 million (Table 1.1). Average consumption per person was 0.08 kg per year.

[1] Calculation based on data from Eurostat (2007, 2008) and the Food and Agriculture Organisation (2008). Apparent consumption includes industrial and consumer demand, and is calculated as production plus imports minus exports.

Between 2003 and 2007, consumption increased 14% in value (3.4% annually) and 4% in volume.

The markets in Spain, Portugal, Italy, France and Sweden experienced the strongest growth in value and volume between 2003 and 2007. The markets in the United Kingdom, Germany and the Netherlands decreased in this period. The 8 EU countries listed in Table 1.1 represent 95% of the EU market. Consumption levels in other EU countries are very low.

Table 1.1 Apparent consumption[2] of papaya, 2003–2007, value in million € and volume in thousand tonnes.

	2003		2005		2007	
	Value	Volume	Value	Volume	Value	Volume
Total EU	**46**	**36**	**49**	**44**	**53**	**37**
United Kingdom	15	11	11	10	13	8
Germany	15	10	11	10	12	8
Portugal	6	5	8	6	9	6
Spain	3	1	5	3	7	5
France	3	1	2	1	3	2
Italy	2	1	3	2	3	2
Netherlands	0	3	5	8	2	4
Sweden	1	0	1	1	1	1

Source: Eurostat, 2007, 2008

The ***UK*** is the largest market for papaya in the EU, accounting for 25% of the EU consumption value in 2007. The consumption levels are fluctuating. However, UK consumers eat around 0.13 kg of papaya per year while the overall EU average is 0.08 kg. Many exotic fruits are available in supermarkets all year round. The large ethnic community in the UK and the growing interest of native Britons in exotics are the main drivers of consumption of exotics. The largest growth in consumption of exotic fruits occurred at the beginning of this century. Nevertheless, between 2003 and 2005, consumption of papaya decreased 15% in value and 26% in volume.

Germany accounts for 22% of the EU consumption value in 2007. Between 2003 and 2007, consumption decreased 22% in value and 21% in volume. The average consumption is 0.09 kg, just above the EU level. Due to the population size, Germany is one of the largest markets in the EU. The availability of papaya has gradually increased over the years. However, papaya is still a minor product in Germany.

With 18% of the consumption value in the EU in 2007, ***Portugal*** is the third consumer market. The average consumption of papaya, 0.56 kg per person, is the highest in the EU. One explanation for the higher consumption levels is the historic ties between Portugal and Brazil, the largest producer of papaya in the world. ***Spain*** is the fourth EU market, accounting for 12% of apparent consumption. Between 2003 and 2007, consumption in Portugal increased 50% and in Spain it more than doubled.

Consumption levels in ***the Netherlands, Italy and France*** are very low and they are small markets. However, the Netherlands plays a major role in the distribution of papaya in the EU.

Papaya has undoubtedly found a niche in the EU market but it is uncertain how the market will develop in the near future. The current economic crisis affects the sales of exotic fruits in many EU countries. In the UK, with the fall in value of the British pound, consumers are more price-conscious. The market for premium-priced exotic fruit is under pressure and imports have dropped significantly in the first months of 2009 (fruitnet.com 2009). Also, the sales of exotic fruit in Italy has dropped remarkably.

[2] Apparent consumption is calculated as production + imports - exports

Papaya is one of the more expensive fruits. When consumers are more price-conscious, it is expected that the sales of papaya will decrease in favour of lower-priced types of fruit.

Market segmentation

As with other exotic fruits and vegetables, the size and origin of the ethnic population in a country is an important indicator of consumption levels. As they are accustomed to eating 'exotic' fruits, ethnic populations were the first to demand them.

More people are travelling to exotic destinations thus adding to the growing interest in foreign cuisine and exotic food. The larger supermarkets quickly picked up on this trend and made exotics widely available. Bananas, pineapples and nowadays, mangos, are all widely available in supermarkets year round. However, papaya is a minor exotic that is available in small amounts and consumption is concentrated around Christmas and Easter.

Many EU consumers are not familiar with papaya and do not know how to use the fresh papaya fruit. To get around this problem, papaya is increasingly used in ready-to-eat exotic fruit salads which may lead to consumers demanding the whole fresh fruit.

Papaya is most popular in north-western and southern EU countries. In the eastern Member States, papayas are not consumed much, as can be concluded from the very small amounts of papaya imported by these countries. However, it is expected that the market will also increase in the new eastern EU Member States. In general, exotic fruit will benefit from increasing incomes in these countries and the growing interest in new and exotic products.

Trends in consumption

- Pre-cut convenience products are a good way to introduce new fruit species and this can also overcome the problem of peeling and preparing a papaya for consumption. EU consumers are spending less time on preparing food, resulting in more demand for processed and semi-processed and prepared papaya (fruit juice, preserves, peeled/sliced papaya).
- Consumers increasingly have a strong interest in healthy food. Papayas are very nutritious and their consumption may benefit from this trend when consumers are aware of these health benefits.
- Consumers appear to demand small fruits (a single portion). This gives the varieties Solo and Sunrise a competitive advantage over other larger varieties. The industry uses both small and large varieties for its fruit salads.

Production

Papaya is grown commercially in the tropics and sub-tropics on large plantations but also in small family backyards. Almost all papayas consumed in the EU are imported. Production of papaya in the EU is virtually zero. A very small amount is produced in green houses in the Canary Islands (Spain) and is used for local consumption (International Society for Horticultural Science).

Despite a downturn in production volume in 1987, 1989, 1996 and, more recently, in 2004 and 2005, world production of papaya increased steadily from 3.2 million tonnes in 1985 towards 6.9 million tonnes in 2007. This steady increase in total world production seems to have slowed down during the last 5 years. From 2002 up to 2007 the total increase in production was 4.9%.

Brazil is a major producer of papaya. As shown in table 1.1, Brazil increased its volume by 18.8% during the past 5 years to 1.9 million tonnes in 2007. Caliman Agricola is one of the largest companies specialised in the production of papaya (http://www.caliman.com.br). Other major producer countries are Mexico, Nigeria, India and Indonesia. Together with Brazil they contribute to 70% of world production.

Colombia and South East Asian countries like Indonesia, Philippines and Thailand increased production levels in recent years, while Mexico and China saw a reduction in production volumes. African countries like Nigeria, Ethiopia and Democratic Republic of Congo showed a slower but steady increase in production volume.

Table 1.2 Production of papaya, 2002 – 2007, in thousand tonnes.

	2002	2003	2004	2005	2006	2007
World	**6,614**	**6,892**	**6,699**	**6,362**	**6,923**	**6,937**
Brazil	1,598	1,715	1,612	1,574	1,898	1,898
Mexico	876	956	788	709	799	800
Nigeria	755	755	755	756	759	765
India	700	700	700	700	700	700
Indonesia	605	627	733	549	643	645
Ethiopia	226	231	260	260	230	230
Dem. Rep. of Congo	210	212	214	216	218	215
Peru	173	190	194	171	171	175
Philippines	128	131	134	147	157	164
Venezuela	153	148	132	118	151	151
China	163	165	155	113	151	145
Colombia	86	88	103	138	135	135
Thailand	120	125	125	131	131	131
...						
Ecuador	80	63	37	43	43	43
Côte d'Ivoire	4	4	5	5	4	4
Ghana	2	2	3	4	4	4

Source: FAOSTAT, 2009

Papaya trees produce fruit whole year round for about 3 to 5 years after which production gradually declines and most trees are replaced. Papaya grows relatively easily. One of the major problems in papaya production is the control of the papaya ring spot virus (PRSV). Infestations in plantations in Hawaii, Brazil and Taiwan resulted in severe harvest losses in the early 1990s. PRSV is nowadays spread all over the world and can result in a loss of 30-70% of harvest.

The USA, especially the University of Hawaii, is the leader in research in papaya cultivation and developed PRSV resistant varieties through genetic modification (GM). Although 10 years of research did not show clear proof of negative side effects, GM varieties still face difficulties being accepted by consumers and farmers. Since the commercial introduction of GM varieties in 1998 in Hawaii, only the USA and Canada accepted the import and trade of GM papayas. Farmers are still hesitant to transfer to GM varieties as GM varieties resulted in lower prices. Organic farmers and some conventional farmers do not allow GM varieties and they are faced with losses due to contamination from neighbouring GM fields. Nevertheless, commercial production of GM papaya has been studied and is expected to take place in the near future in some Asian countries like China, Philippines and Thailand, according to the United States Department of Agriculture (USDA). Import of GM papaya into the EU is not allowed and the negative public opinion of GM varieties and products in general in the EU is not expected to change radically in the coming years.

It is interesting to note that the shape of the fruit is not a function of the variety but of the sex of the plant on which the fruit grows. Round fruit comes from a female plant, and traditional pear-shaped fruit comes from a hermaphrodite plant. Because the market prefers pear-shaped fruit, which have a small seed cavity and are easier to pack, female plants are normally removed from production as soon as their sex is known.

Opportunities and threats

\+ There is no commercial production of papaya in the EU. To meet the small but growing demand in the EU, papaya need to be imported.

+ Countries with large ethnic communities that are used to eating papaya are the main and most obvious markets (UK and France). Countries with historic relations with papaya producing countries are also interesting markets (Spain and Portugal).
+ Papaya is a less well-known exotic than mango or pineapple. By offering papaya as ready-to-eat products, the threshold for consumers to try them is reduced.
+ The niche market for ready-to-eat papaya is growing. The UK is currently the most interesting market for these convenience products.
+ There are also good opportunities for processing into fruit juices though these papayas are imported as juice concentrates.

± Consumption is increasing at a slow pace.

– Papaya is relatively unknown, particularly in East European member countries.

Trends and market developments offer opportunities and threats to exporters. A given trend can simultaneously be a threat to some and an opportunity to others. Therefore, they should always be analysed in relation to specific company circumstances. Further information can be found in Chapter 7 of the CBI market survey 'The fresh fruit and vegetables market in the EU'.

Useful sources
There are many websites providing new services and market information on fresh fruit and vegetables. Some important websites are:
- FreshInfo (international) – http://www.freshinfo.com;
- Freshplaza (international) – http://www.freshplaza.com;
- Eurofruit (international) – http://www.fruitnet.com;
- CIRAD (France) – http://passionfruit.cirad.fr;
- Fruchthandel (Germany) – http://www.fruchthandel.de;
- Horticom (Spain) – http://www.horticom.com (partly in English, mostly in Spanish).

2 Trade channels for market entry

Trade channels
All the selected countries have a well developed distribution system for fresh fruit and vegetables. Air freight is still widely used for transporting papaya. The fruit is very vulnerable and must be handled carefully. The short travel times guarantees that the product reaches the market in good condition. The costs of airfreight are much higher than sea transport. Due to improved packaging and storage conditions (temperature controlled) during transport, sea transport is also possible.

The trade in papaya is not dominated by large multinational companies as it is for other tropical fruits, such as bananas or pineapples. It is therefore more open to new suppliers. Papayas are imported into the EU mostly by independent importers. Some of these importers are specialised in exotic fruits. Others import a large variety of fruits, and include papaya as a peripheral activity. Specialised importers are the best business partners for exporters from DCs. Exporters are best advised to look for an importer which supplies supermarkets, wholesalers, greengrocers or the catering industry, and who deals in smaller quantities and is interested in new suppliers.

The most important importers of exotic fruits in the EU are:
- Bud Holland (the Netherlands) – http://www.bud.nl;
- FTK (the Netherlands) – http://www.ftk.nl;
- Minor Weir and Willis Ltd (UK) – http://www.mww.co.uk;
- Utopia UK Ltd – http://www.utopiauk.com.
- ExoFarm (France) – http://www.exofarm.com.
- Cobana Fruchtring (Germany) – http://www.cobana-fruchtring.com.

For other major importers and distributors of fresh fruits and vegetables, see Chapter 3 in the CBI market survey 'The fresh fruit and vegetables market in the EU'.

Retail trade
Supermarkets are the main outlet for many exotic fruits. Increasingly, theybuy fruits and vegetables from a group of preferred suppliers. Preferred suppliers need to be approved and follow specific quality norms and regulations that are set by the retailer. Supermarkets often work with longer term framework contracts with one or two of the preferred suppliers.

However, greengrocers and street markets still have a fair share of exotic and speciality fruit sales in many EU countries, especially in Southern and Eastern Europe. Another market opportunity, though smaller, is the restaurant and catering channel. In Western Europe, most food products are sold by supermarkets (about 75% of the total sales), followed by restaurants and catering (about 15%) and greengrocers and street markets (about 10%, but this share is much larger in Southern and Eastern Europe).

Smaller and independent supermarkets, greengrocers, street markets and catering outlets mainly buy through specialised importers or agents who are the most important potential business partners for DC exporters. They have experience and knowledge of the international market and have strong relationships with suppliers and buyers. Exporters are advised to contact and co-operate with specialised importers to find ways of distributing their products. Besides focusing on the home market, these importers may also be active in exporting to other EU countries.

Price structure
Supply and demand on the world market are the main factors that influence the export prices of fresh fruit. Prices can therefore fluctuate over time. Weather conditions in the producing countries influence harvest results and can disrupt supply, just as warm weather in summer (or cold weather) in Europe can increase (or decrease) demand for fresh tropical products. Demand is also influenced by national holidays and celebrations like Christmas and Easter, especially for an exotic fruit such as papaya.

Variety, quality and origin are important factors in determining the price level. Quality requirements vary greatly but are generally high in most EU markets. 'Solo' is the most traded variety in the EU but there are other varieties in demand as well (see Appendix 2).

Trade margins vary a lot depending on the variety and quality of product, the distribution channel, the continual changes in supply and demand and resulting price fluctuations. It is estimated that European importers need a trade margin of some 5-10% to cover their business costs and risks but this may vary between countries as business costs and risks are not always the same. Wholesalers and retailers also take a margin, which varies even more than import margins. It is recommended that markets and prices be monitored closely in order to quote realistic prices.

More information on margins can be found in Chapter 5 of the CBI market survey 'The fresh fruit and vegetables market in the EU'.

Selecting a suitable trading partner
General information on selecting suitable trading partners is available in the CBI market survey 'The fresh fruit and vegetables market in the EU' and the CBI publication '*Export planner*'. Both documents are available at http://www.cbi.eu/marketinfo.

The choice of countries is as important as the choice of importers. It is best to determine first which country is the most interesting to which to export. The best way of finding a suitable business partner is to look at the supply chain in the country of interest and see from where the papaya are sourced (direct imports from source or through other EU countries).

There are many importers of papaya in the selected countries. Contact information on these importers can be found in the CBI country surveys of the fruit and vegetables markets.

These documents are available at http://www.cbi.eu/marketinfo. The following websites are also useful sources for finding contact details and information on importers:

- Europages – http://www.europages.com. The most interesting contacts can be found under the category 'Agriculture and Livestock', subcategory 'Fruits and Vegetables';
- Greentrade – http://www.greentrade.net, marketplace and directory for organic products;
- Holland Fresh Guide – http://www.hollandfreshguide.com, go to 'Advanced search';
- Fresh Produce (UK) – http://www.freshproduce.org.uk, go to 'Search members';
- Rungis (France) – http://www.rungisinternational.com;
- DFHV, German Association of Fruit and Vegetables Traders – http://www.dfhv.de, click on 'Mitglieder'.

3 Trade: imports and exports

Imports

The total world trade in papaya is estimated to be €162 million, representing 263 thousand tonnes in 2006. The EU and the USA are the major import markets for papaya. In 2006, the EU and the USA had a market share of respectively 41% and 37% in value of the total world imports of papaya. The USA is still leading in volumes but the EU surpassed the USA in value of imports in 2005.

Singapore (10%) and Hong Kong (7%) are other major markets in volume, while Canada (6%) and Japan (5%) are more important markets in terms of value (FAOSTAT 2009).

The papaya market has been a fast growing segment in the EU fresh fruit market. Since 2000, when the papaya was fairly unknown, the imported amounts rose from €32 million to €69 million in 2005. In the years after 2005, the growth slowed down. In 2007, EU imports reached €72 million with a volume of 51 thousand tonnes. Compared to 2003, this was an increase of 8% in value. The imported amount was almost equal.

The EU imports mainly from Brazil which is responsible for 52% of total supply. It is the major supplier to most EU countries including Spain (77%), Portugal (71%), France (56%), the Netherlands (52%) and the UK (45%). Other major origins are Thailand (4.3%), Ecuador (3.4%), Côte d'Ivoire (3.0%) and Ghana (2.7%). The Netherlands supplies 14% of all papaya to the EU and is therefore the largest re-exporter in the EU. Also Spain, France and Germany supply papaya to other EU countries. Eastern EU countries and Scandinavian countries depend mainly on EU re-exports from the Netherlands, France or Germany.

Table 3.1 Imports of papaya and leading suppliers to EU countries, 2003-2007, share in % of import value.

Product	2003 € mln	2005 € mln	2007 € mln	Leading suppliers in 2007 Share in %	Share (%)
Total EU27	**67**	**69**	**72**		
Intra EU[3]	18	19	20	The Netherlands (14%), Spain (4%), France (3.9%), Germany (2.5%), Denmark (1.0%)	28%
Extra EU ex. DCs	1	0	1	USA (0.6%), Israel (0.1%)	0.7%
DCs	48	50	52	Brazil (52%), Thailand (4.3%), Ecuador (3.4%), Côte d'Ivoire (3%), Ghana (2.7%)	72%
The Netherlands	**17**	**17**	**14**		
Intra EU	1	1	1	France (4.3%), Germany (0.7%), Denmark (0.4%), Italy (0.4%), Belgium (0.2%)	6.4%
Extra EU ex. DCs	0	0	0	USA (0.2%), Norway (0.1%)	0.5%
DCs	16	16	13	Brazil (77%), Ecuador (7%), Ghana (5%), Thailand (2.8%), Malaysia (0.6%)	93 %
United Kingdom	**15**	**12**	**13**		
Intra EU	0	1	1	The Netherlands (5%), France (3.5%), Germany (0.7%), Belgium (0.2%), Spain (0.1%)	9.4%
Extra EU ex. DCs	0	0	0	Israel (0.2%), USA (0.1%)	0.3%

[3] Note that all intra-EU trade comes from re-exports, as papaya is not produced in the EU.

Product	2003 € mln	2005 € mln	2007 € mln	Leading suppliers in 2007 Share in %	Share (%)
DCs	15	11	12	Brazil (45%), Thailand (9%), Egypt (7%), Pakistan (7%), India (4.3%)	90%
Germany	**16**	**13**	**12**		
Intra EU	12	9	8	The Netherlands (56%), France (4.7%), Italy (3.1%), Denmark (2.9%), Belgium (0.1%)	67%
Extra EU ex. DCs	1	0	0	USA (1.7%)	1.7%
DCs	3	3	4	Brazil (22%), Thailand (5%), Ecuador (1.7%), Ghana (1.7%), Sri Lanka (0.6%)	31%
Portugal	**6**	**8**	**9**		
Intra EU	1	1	3	Spain (25%), Germany (0.8%), France (0.6%), The Netherlands (0.2%), Greece (0.2%)	27%
Extra EU ex. DCs	0	0	0	USA (1.8%)	1.8%
DCs	6	7	7	Brazil (71%)	71%
Spain	**3**	**5**	**9**		
Intra EU	1	1	1	Germany (3.7%), The Netherlands (2.7%), France (1.6%), Portugal (1.1%)	9.1%
Extra EU ex. DCs	0	0	0		
DCs	3	5	8	Brazil (77%), Ecuador (14%), Costa Rica (0.1%)	91%
France	**4**	**5**	**6**		
Intra EU	1	1	1	Spain (3.9%), The Netherlands (2.8%), Belgium (1.6%), Germany (0.5%), Italy (0.3%)	9.5%
Extra EU ex. DCs	0	0	0	Israel (0.1%)	0.1%
DCs	3	4	5	Brazil (56%), Côte d'Ivoire (27%), Thailand (6%), Sri Lanka (0.7%), Ghana (0.3%)	90%

Source: Eurostat, 2007, 2008

The Netherlands is the leading importer of papaya in the EU with a share of 19% of total EU imports (Table 3.1). The domestic market for papaya is small and the Netherlands is mainly a re-exporter of papaya to other EU countries (88% of the imported papaya are re-exported). The Netherlands has a very strong position as an importer and re-exporter of (minor) exotic fruits, such as pineapples, mangos and passion fruits, but its share of EU imports is decreasing somewhat.

DCs are the most important suppliers, accounting for 93% of the import value in 2007. Between 2003 and 2007, imports from DCs decreased 18% in value and volume. Brazil is the main supplier (77% of the import value), though imports from Brazil decreased almost 30% compared to 2003. Ecuador and Ghana are small but growing suppliers. Intra-EU trade, notably from France, also increased quickly.

The ***UK*** is the second largest importer of papaya in the EU. Between 2003 and 2007, imports decreased 14% in value and 25% in volume. In contrast to the Netherlands, it has a large domestic market and most imported papaya is consumed domestically. Only 3% was re-exported, mainly to Ireland and the Netherlands. The UK imports from a wider variety of origins than any other EU country. DCs are responsible for 90% of the supply and Brazil is the main supplier. The UK is the only EU importer of papaya from Egypt, Pakistan and India. Imports from Egypt are increasing while India and Pakistan are exporting less to the UK. Imports from DCs decreased 20% in value and 32% in volume between 2003 and 2007. Intra-EU imports showed a strong growth although from a small base. The UK is importing more papaya from the Netherlands and France at the expense of direct imports from DCs (mainly Pakistan and India).

Germany is a major market and most imports are consumed domestically. Only small amounts are re-exported. Germany has the smallest imports from DCs of the six countries discussed here. Two-thirds of the papayas are imported indirectly, from other EU countries. Between 2003 and 2007, imports of papaya decreased 22% in value and 21% in volume.

Fewer papayas were imported from other EU countries while imports from DCs increased (notably Brazil and Thailand). Though the Netherlands will remain a main supplier, direct imports from DCs are expected to increase.

Portugal accounted for 13% of the EU import value in 2007. Between 2003 and 2007, imports increased 51% in value and 12% in volume with most growth coming from supplies by EU countries. More than 70% of the imports came from DCs, all from Brazil. Portugal does not import from other DCs. Spain is the main EU supplier and small amounts are imported form the USA.

Spain is now the fifth importer of papaya in the EU, accounting for 12% of the EU import value. Between 2003 and 2007, imports more than doubled in value and volume. Spain imports 91% of the papayas directly from DCs. Imports from DCs increased much faster than imports from other EU countries. Brazil is the main supplier and imports from Ecuador are growing rapidly.

France, the sixth importer in the EU, accounted for 8% of the EU import value in 2007. Between 2003 and 2007, imports increased 60% in value and 68% in volume. DCs supplied 90% of the imports; the rest was supplied by other EU countries. France imported more papaya directly from DCs and less from other EU countries. Brazil is the main supplier and imports from Côte d'Ivoire and Thailand are also increasing.

Exports
The major exporters worldwide are Mexico (mainly to the USA market), Brazil (main supplier to EU), the Netherlands, Belize, Malaysia, USA and the Philippines. Since there is no production of papaya in the EU, all exports by EU member states are re-exports.

In 2007, EU countries re-exported 13 thousand tonnes of papaya, with a value of €19 million (Table 3.2). Between 2003 and 2007, exports decreased 8% in value and 9% in volume. Almost 90% of these exports went to other EU countries. The Netherlands is the largest re-exporter but exports decreased between 2003 and 2007. France increased its exports and was the second largest in 2007 (14% of the EU export value in 2007). Exports from Spain, the third exporter, have also increased. Germany is the main export market; 43% of the EU exports (in value) in 2007 went to Germany. Italy and Portugal are the other main destinations. Exports to non-EU countries almost doubled between 2003 and 2007. In 2007, 13% of the EU export (in value) was exported to non-EU countries with Russia, Norway and Switzerland as the main destinations.

Table 3.2 Exports of papaya in the EU, 2003-2007, value in million € and volume in thousand tonnes.

	2003		2005		2007	
	Value	**Volume**	**Value**	**Volume**	**Value**	**Volume**
Total EU-27	**21**	**15**	**20**	**15**	**19**	**13**
The Netherlands	17	12	12	10	12	9
France	1	0	3	2	3	2
Spain	1	1	1	1	2	2
Germany	1	0	2	1	1	0
Belgium	1	0	2	1	1	1
United Kingdom	0	0	1	0	0	0

Source: Eurostat, 2007, 2008

Opportunities and threats
+ The EU depends solely on imports to meet the domestic demand for papayas. DCs are the main suppliers of papayas; intra-EU trade consists of re-exports of papayas from DCs.
+ Though Brazil is dominating the supply, other DC suppliers are gaining share in EU imports.
+ The Netherlands is and will remain of particular interest as leading importer and distributor of papaya to other EU countries. The Netherlands has the highest share in direct imports from DCs, but growth in imports from DCs is slowing down.

± Though the Netherlands is an important supplier of papaya, many of the large EU countries (except Germany) import papaya directly from DCs. It is expected that some EU countries will import more directly (like Germany and Poland) while others (some Eastern European countries) will choose to import from other EU countries.
± Exporting high-quality papaya requires delicate handling which is difficult to master and may involve high costs.

Trends and market developments can offer both opportunities and threats to exporters. A given trend can simultaneously be a threat to some and an opportunity to others. These trends should therefore always be carefully analysed in relation to specific company circumstances, in combination with the information provided in other Chapters. Further information is available in Chapter 7 of the CBI market survey 'The fresh fruit and vegetables market in the EU'.

Useful sources
- EU Expanding Exports Helpdesk – http://exporthelp.europa.eu;
- Eurostat, official statistical office of the EU – http://epp.eurostat.ec.europa.eu.

4 Price developments

Global supply and demand are important factors in setting prices of papaya from DCs. Prices may fluctuate strongly, as is the case for most commodities. Price fluctuations may show seasonal, annual and longer-term trends.

In the 1990s, papayas were a luxury product which was not widely available in the EU and for which a high price was paid. Since then, imports have increased gradually and, in general, prices have gone down.

Papaya prices vary widely depending on variety, size, quality standards, origin and transport method. Average import prices include both premium-priced and regular fruits, as well as air-freighted and sea-freighted papayas. Therefore, import prices do not accurately reflect true prices received by exporters, and can only be used as indication. The average import price of papaya in the EU gradually decreased from €1900 per tonne in 2000 to €1420 per tonne in 2007. Industry sources report a minor increase in imports compared with 2007, fluctuating import prices. The expectation for 2009 is a reduced demand for papaya as a result of the current economic crisis (less demand for premium priced exotics such as papaya).

While import prices give an indication of the trends in prices, table 4.1 gives an overview of real trade prices from September 2008.

Table 4.1 Examples of import prices paid for different varieties of papaya in the Netherlands, the UK and France, in € per kg, September 2008

Market	Origin	Low price	High price	Variety	Transport
The Netherlands	**Brazil**	3.00	3.00		
		1.57	1.71		Sea
		3.00	3.00	Formosa	
	Côte d'Ivoire	1.71	1.71		Sea
France	**Brazil**	2.80	3.10		
Belgium	**Brazil**	1.57	1.67		
		3.20	3.20	Formosa	
		1.62	1.62	Formosa	Sea
	Ghana	2.85	2.85		

Source: Marketing News Services, January 2009.

Throughout the various trade channels, different prices apply. Differences in national trade prices may exist due to differences in the type and quality, origin or intensity of the competition.

Exporters are recommended to monitor markets and prices closely, in order to quote realistic prices. Importers and agents can give up-to-date information on the price levels of individual products.

The CBI market survey 'The fresh fruit and vegetables market in the EU' and the surveys covering individual countries, provide more information on price levels for fresh fruit in the EU. These surveys can be downloaded from http://www.cbi.eu/marketinfo. Other sources include:

- ITC's Market News Service (MNS) – http://www.intracen.org/mns;
- Today's Market Prices – http://www.todaymarket.com (subscription fee);
- Agribusiness Online (various European ports) – http://www.agribusinessonline.com;
- FreshPlaza PriceWatch (for Dutch market) – http://www.freshplaza.com;
- USDA Market News, wholesale market reports for various EU countries – http://www.ams.usda.gov/fv/mncs/intfru.htm).

5 Market access requirements

Producers in DCs preparing to access the EU should be aware of the market access requirements of potential trading partners, the EU and national governments of EU countries. Quality requirements are very diverse, though, in general, are high in most EU markets. Requirements are demanded through legislation and through labels, codes and management systems. These requirements are based on environmental, consumer health and safety and social concerns. It is necessary to comply with EU legislation and be aware of the additional non-legislative requirements that trading partners in the EU might request.

For information on legislative and non-legislative requirements, go to 'Search CBI database' at http://www.cbi.eu/marketinfo, select 'fresh fruit and vegetables' and country of interest in the category search, click on the search button and click on market access requirements.

There are no EU import tariffs or entry prices for papaya. More information on tariffs and quotas can be found at http://exporthelp.europa.eu.

Packaging

The papaya is a delicate fruit which requires careful handling in order to minimise bruising. Bruised or damaged fruit are highly susceptible to post harvest rots which easily spreads to other fruits. Papaya can be transported by ship if picked mature green. It can be ripened under controlled conditions. For long distance shipment, fruits should be picked as close to mature green as possible. This requires a great deal of experience to distinguish mature green from immature green fruits. Immature green fruits are incapable of ripening after long-distance refrigerated transport. Ripe fruit can be stored for up to one week.

There are 3 main grades for papaya: Extra Class for superior quality, Class I for good quality (very small defect admitted) and Class II for fruits with minor defect. Fruits are packed in cartons, in vertical direction, and often fruits are individually wrapped in foam. The number of fruit depends on the size of the individual fruit (3.5-4 kg boxes with 6-12 fruits, or 8 kg boxes for very large fruits.

More information on post-harvest treatment, packaging, storage and transportation, as well as information on export market requirements, regulations, food safety standards (phytosanitary controls) and Maximum Residue Levels (MRLs), can be found at the International Tropical Fruit Network (TFNet) – http://www.itfnet.org, go to 'Tropical Fruit Information'.

Additional information on packaging can be found at the website of the International Trade Centre (ITC) on export packaging – http://www.intracen.org/ep/packit.htm.

Labelling

Each package must, at least, indicate the following information on the label: the packer, the variety, the country of origin, the class, the size code, the number weight (optional).

More information on marketing standards for papaya can be found in the Codex Standard http://www.codexalimentarius.net/download/standards/314/CXS_183e.pdf.

6 Doing business

Information on doing business can be found in the CBI export manual 'Export Planner', 'Your Image Builder' and 'Exporting to the EU'. Subjects covered include approaching potential business partners, building up a relationship, drawing up an offer, handling the contract, methods of payment and terms of delivery. More information on doing business can also be found in the CBI market survey 'The fresh fruit and vegetables market in the EU'.

Cultural awareness, in addition, is a critical skill in securing a successful business relationship with an importer in the EU. The business environment differs per EU country. Information on cultural differences in the EU can be found in Chapter 3 of the CBI export manual 'Exporting to the EU'. Each of these documents can be downloaded from http://www.cbi.eu/marketinfo – go to 'Search publications'.

In general, many EU importers of fresh produce seek a long-term relationship with their suppliers. They have high demands on the quality of the produce and the reliability of the supply. Trust, quality focus and reliability are therefore important ingredients for a sustainable business relation.

Sales promotion
Visiting or participating in a trade fair is an important promotional tool and way of approaching potential trading partners. The most relevant trade fairs for exporters of fresh fruit and vegetables to the EU are listed below.

- Fruit Logistica – http://www.fruitlogistica.com. The largest European trade fair for fruit and vegetables, with much attention to products from DCs. Held every February in Berlin.
- Fresh 2009 – http://www.freshcongress.com. Yearly European trade fair for the fresh produce sector. The next show will be held in Valencia, from 13-14 May.
- Innofresh – http://www.innofresh.nl, in Rotterdam, 21 - 23 September 2009.

These exhibitions provide excellent opportunities to explore the EU market and to come into contact with potential buyers.

Trade journals, professional websites and newsletters are important sources of up-to-date information on developments in the fresh produce sector. The most relevant sources of information on the market for papaya in the EU and in selected markets are:

- FreshFel Europe, forum for the Fresh Produce Industry – http://www.freshfel.org;
- Eurofruit Magazine – http://www.eurofruitmagazine.com;
- International Tropical Fruit Network – http://www.itfnet.org, contains product specific information on post-harvest handling and packaging and export market requirements (Under 'Market and International Trade') for various tropical fruits, including papaya.

This survey was compiled for CBI by Mercadero in collaboration with Mr. Piet Schotel.

Appendix A General product description

This product survey covers the product group of fresh papayas. The scientific name for papaya is *Carica papaya L.* and the papaya is classified under the Harmonised System Code: **080720**. Papaya is sometimes also referred to as pawpaw or papaw.

Papaya, a native of tropical America, is grown in almost all tropical and subtropical regions of the world. Papaya fruit is valued for its high nutritive and medicinal value. Papaya is grown primarily for the fresh market and processed food industry, but is also used for industrial applications. Papaya plants and fruits contain a latex with the enzyme 'papain' which is used as a 'tenderiser' in the meat industry and as an ingredient in the cosmetic and medicinal industry.

Papayas grow on fast growing trees with a relatively soft trunk and bark. The papaya tree has a single straight trunk growing 2-5 meters high with large fingered leaves in the top. Papaya fruits grow directly out of the trunk underneath the leaves in the top. First fruits can be harvest one year after seeding. Fruits grow continuously and can be harvested the whole year round, however production will decline when trees become 3-5 years old. Papaya fruits are green, 15-45 cm long and 10-30 cm in diameter. When ripe the fruit feels soft and its skin has attained a yellow, amber to orange hue.

The main papaya varieties on the EU market are listed below.
- 'Solo': yellow/green skin, yellow/orange flesh, very sweet and fragrant, juicy and weight from 0.5 to 1 g. It is pear-shaped and of a size well suited to European markets, making it the best-known variety.
- 'Golden': fruit with striped pale brown skin, thick, very firm salmon-pink flesh, very sweet with a nutty taste.
- 'Sunrise': soft skin, firm red-orange flesh, sweet with a high sugar content and weight from 0.6 to 0.75 kg.
- 'Formosa': large fruits (up to 5 kg). It is consumed mainly in ethnic markets and catering.

The most common use of papaya is fresh in whole pieces, in slices or in chunks and in fruit compotes. Papaya is also increasingly used to prepare juices, sauces and other preserves.

HS code

080720	Papaya