THE MARKET FOR ORGANIC AND FAIR-TRADE MANGOES AND PINEAPPLES

Study prepared in the framework of FAO project GCP/RAF/404/GER

"Increasing incomes and food security

of small farmers in West and Central Africa

through exports of organic and fair-trade tropical products"

September 2009

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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1. WORLD TRADE IN PINEAPPLES AND MANGOES

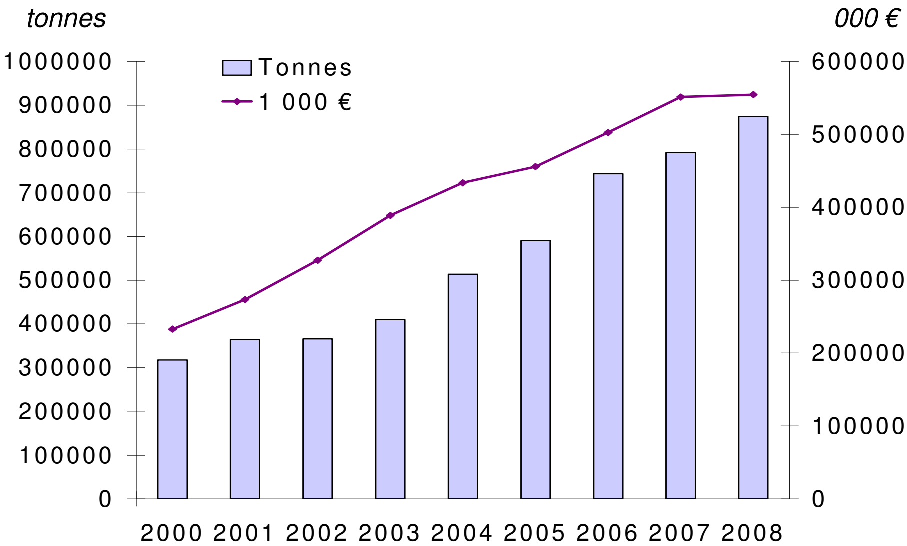
1.1. THE EUROPEAN MARKET FOR PINEAPPLES AND MANGOES

1.1.2. The European market for pineapples

The market for fresh pineapples is one of the fastest growing fruit and vegetable markets in Europe. Nearly all pineapples consumed on the European market are imported from non-European origins; the only European country producing pineapples is Portugal, which grows about 2 000 tonnes annually, mainly for the internal luxury market. Figure 1 shows the evolution of net imports (imports minus exports) into the EU-27 from 2000 to 2008. Net imports grew at an average annual growth rate of 12 percent over the period, from 317 478 tonnes in 2000 to 873 936 tonnes in 2008. These volumes correspond to a total value of imports of €233 million in 2000, or €555 million in 2008. European retailers increasingly prefer MD2 type pineapples[1] over other varieties, including the Smooth Cayenne and Sugarloaf pineapples. The demand for pineapple is highest in May and June, and rises again around Christmas[2].

The European – and global – pineapple market is largely dominated by large multinational food companies, including Del Monte, Dole, Chiquita and Fyffes.

Figure 1. Net imports of pineapples into the EU-27, 2000–2008 (in tonnes and 000 €)



Source: Eurostat.

Costa Rica is by far the largest exporter of pineapples to the European market, supplying 670 119 tonnes, or 73 percent of all imports, in 2008. Other suppliers account for a much smaller share of total imports: Cote d'Ivoire (6 percent of all imports), Ecuador (5 percent), Panama (4 percent), Ghana (4 percent), Brazil (3 percent), Honduras (3 percent) and Cameroon (1 percent) (see Figure 2).

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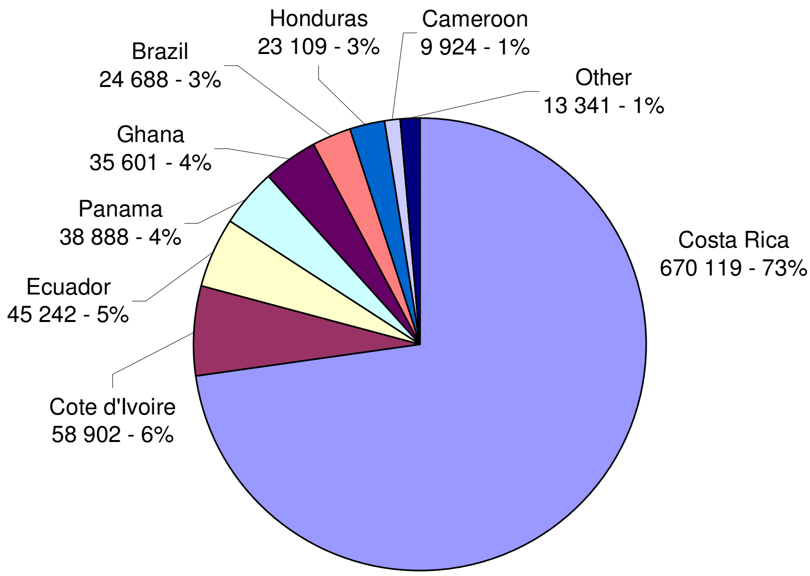
[1] The extra sweet MD2 variety, launched in 1996, was developed by Del Monte in Costa Rica. It currently accounts for approximately three quarters of the European pineapple market.
[2] ITC (2007).

Figure 2. Imports of pineapples into the EU-27, per country of origin, 2008 (in tonnes)



Source: EUROSTAT.

The dominance of Costa Rica on the European pineapple market is remarkable. Only a few decades ago, the bulk of pineapples on the European market were sourced in West Africa, and especially Cote d'Ivoire, which mainly supplied the Smooth Cayenne variety. However, political instability, periods of drought and the introduction of commercial varieties in other producer countries significantly affected the region's importance on the European market. Latin America has now become the dominant supplier on the global pineapple market, which is largely due to the introduction of the commercially highly successful MD2 variety. This variety, which was originally introduced in Costa Rica, has now become the standard variety for nearly all large pineapple producers in Latin America and Asia. Due to the strong demand from retailers, West-African producers are increasingly switching to the MD2 variety too, allowing them to play their part on the European pineapple market. It is expected that especially Ghana, which began exporting MD2 pineapples in 2006, will increase its share of the market. MD2 currently accounts for about 85 percent of the country's pineapple exports to the European market, having widely overtaken the once dominant Smooth Cayenne variety[3].

1.1.2. The European market for mangoes

The large majority of mangoes consumed in Europe are imported, mostly from developing countries. The only European country to produce mangoes on a commercial scale is Spain; according to (unpublished) FAO estimates, the country's production reached 20 000 tonnes in 2008, consisting mainly of mangoes of the Osteen variety. Imports of mangoes (including mangosteens and guavas) into the EU-27 stood at 231 613 tonnes in 2008, up by an average 8 percent annually since 1999. In value terms, imports reached €270.1 million in 2008, up 6 percent annually over the period 1999–2008.

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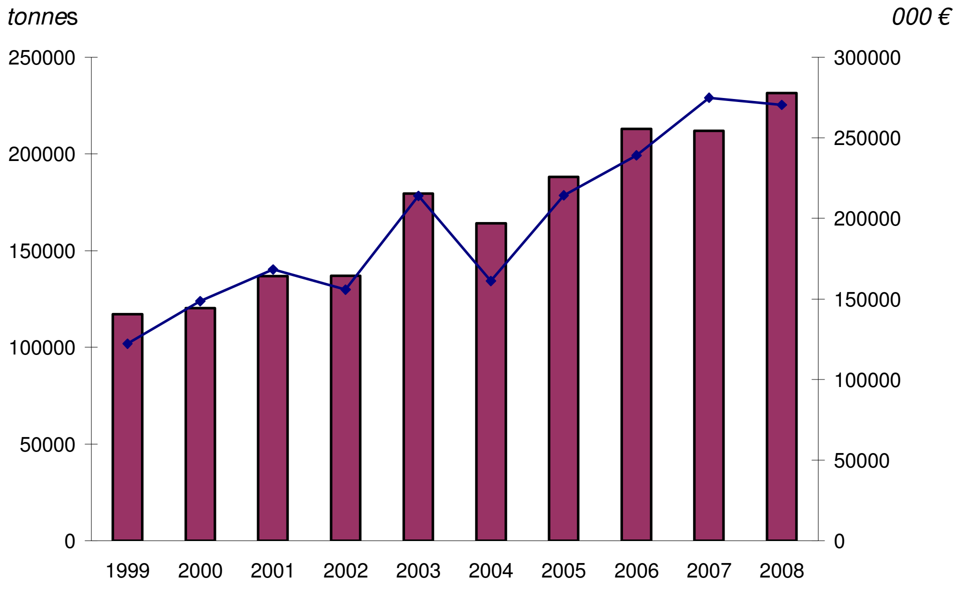
[3] *Dogbevi (2009).*

Figure 3. Imports of mangoes into the EU-27, 1999–2008 (in tonnes and 000 €)

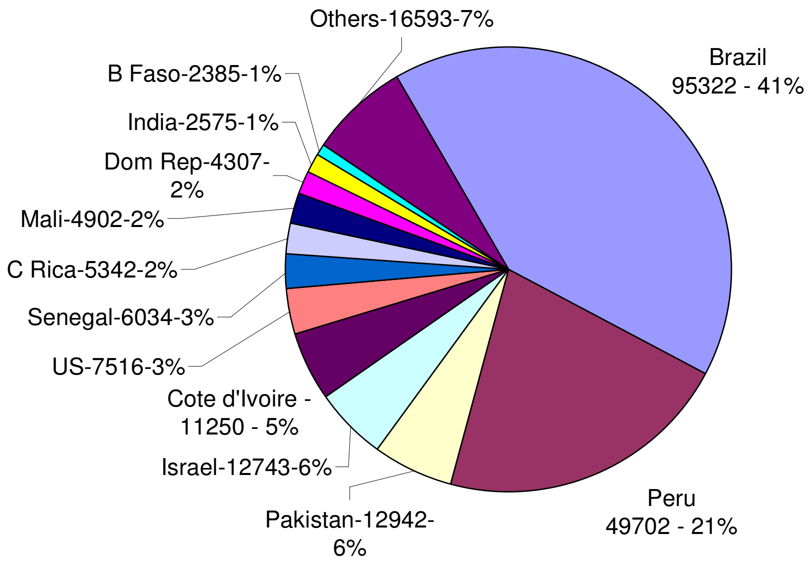


Source: Eurostat.

Brazil is by far the largest supplier of mangoes to the European market, accounting for 41 percent, or 95 322 tonnes, of total imports in 2008. Peru comes second with 49 702 tonnes in 2008, accounting for 21 percent of total imports into the EU. Other suppliers account for a much smaller percentage of overall imports, including Pakistan (6 percent), Israel (6 percent), Cote d'Ivoire (5 percent), the United States, Senegal, Costa Rica, Mali, the Dominican Republic, India and Burkina Faso (< 3 percent) (see Figure 4).

According to industry sources[4], the consumption and consumer awareness of mangoes is increasing steadily in Europe, with the ready-to-eat sector developing quickly. According to FAO, European consumers prefer a deep-yellow mango that develops a reddish-pink tinge. Red skin is considered a necessity in mangoes shipped to northern markets, even though the quality may be inferior to that of non-showy cultivars[5].

Figure 4. Imports of mangoes into the EU-27, per country of origin (2008) (in tonnes)



Source: CIRAD (2009).

[4] *Joyce (2009).*

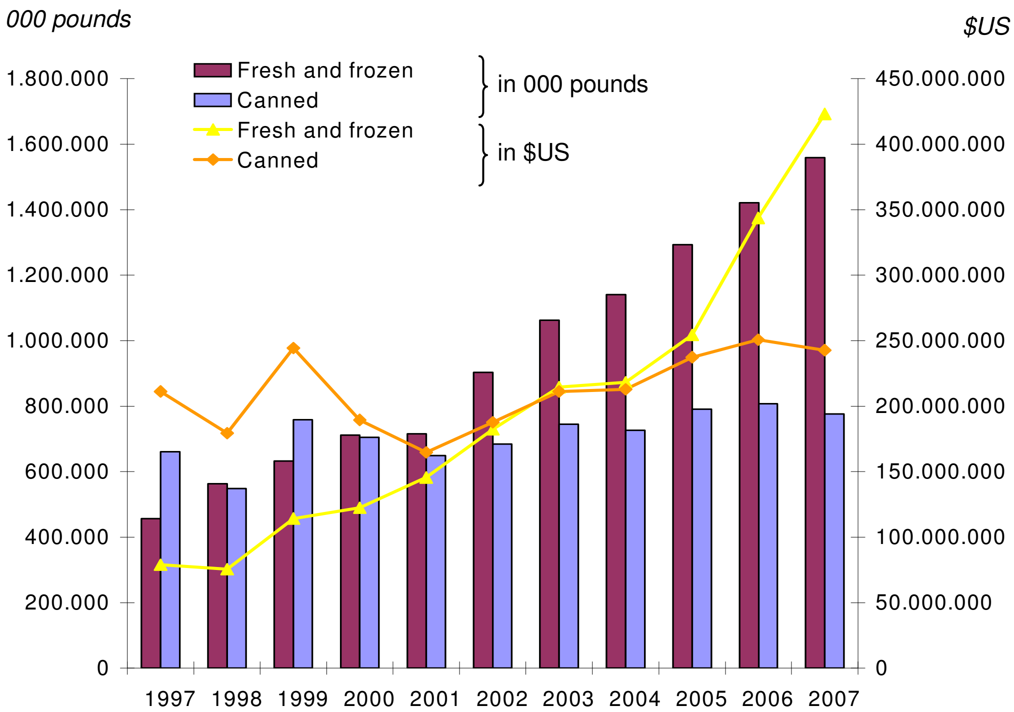
[5] *See <http://www.fao.org/inpho/content/compend/text/Ch20sec1_6.htm>.*

1.2. THE MARKET FOR PINEAPPLES AND MANGOES IN THE UNITED STATES

1.2.1 The market for pineapples in the United States

As in Europe, the fresh pineapple market is one of the fastest growing fruits and vegetables markets in the United States. Over the past decade, imports of fresh pineapples into the United States have more than tripled, from 206 770 tonnes in 1997 to 644 764 tonnes in 2007. The value of fresh pineapple imports rose at an average of 17 percent annually, from US$79 million in 1997 to US$423 million in 2007. Fresh pineapple imports have thereby widely overtaken imports of canned pineapple, which stood at 351 884 tonnes or US$243 million in 2007, exhibiting an average annual growth rate of 2 percent, both in volume and value, since 1997 (see Figure 5).

Figure 5. US imports of fresh and frozen and canned pineapples, 1997-2007 (in 000 pounds and $US)



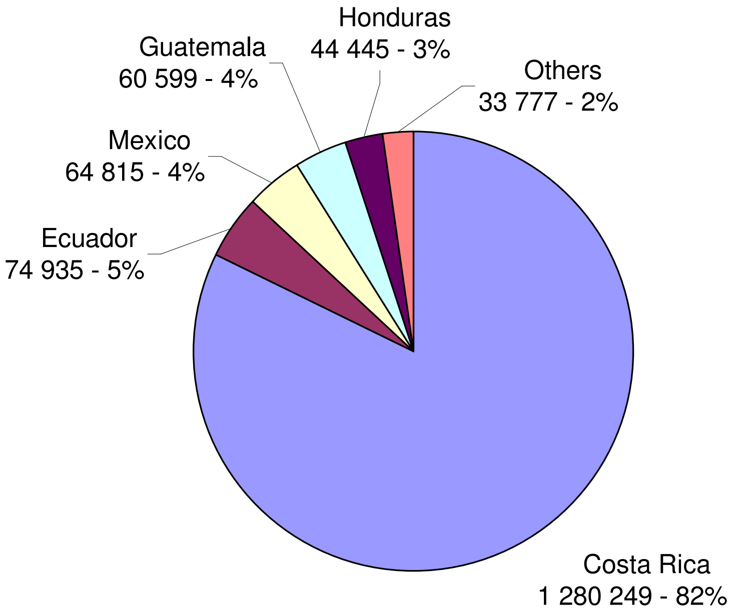
Source: US Trade Internet System, Foreign Agricultural Service, United States Department of Agriculture

Costa Rica is by far the largest supplier of fresh pineapples to the US market, accounting for 82 percent of total imports (in volume) in 2007. The dominance of Costa Rica is largely due to the country's forefront role in the development of the MD2 variety by Del Monte. Other important players on the US pineapple market are Ecuador, Mexico, Guatemala and Honduras, accounting for 3 to 5 percent of total imports in 2007. Meanwhile, the processed pineapple market is overwhelmingly supplied by the three major world exporters: the Philippines, Thailand and Indonesia.

Hawaii is the only US State to produce pineapples. Annual production for the fresh pineapple market stood at 96 000 tonnes in 2006, compared with an average annual production of 121 000 tonnes during the period 1980-2006. The value of Hawaii's 2006 pineapple production amounted to US$73.7 million, compared with an average annual production value of nearly US$94 million from 1980 to 2006[6].

[6] *Hawaiian pineapples face stiff competition from fruits grown in areas of the world with lower production costs and a closer proximity to consumption markets. Thus, Hawaii's production continues to shrink as production in Latin America increases (McCleur, 2006).*

Figure 6. Imports of fresh pineapples into the US, per country of origin, 2007 (in 000 pounds)

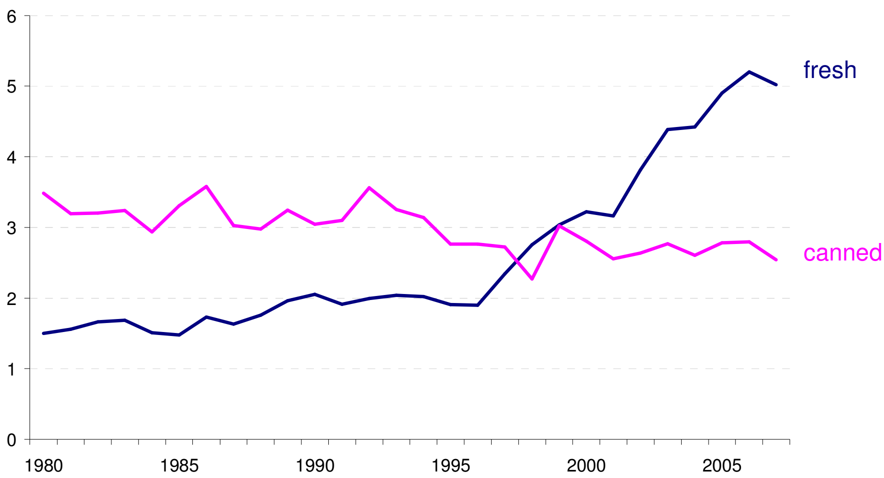


Source: US Trade Internet System, Foreign Agricultural Service, United States Department of Agriculture

Pineapples, once a favourite fruit for processing, have been increasingly marketed for fresh consumption with the emergence of the extra sweet MD2 variety in the mid 1990s. In addition, the dynamism of the fresh pineapple market is linked to the recent development of fresh-cut ready-to-eat pineapple products.

The growing importance of fresh pineapple imports as opposed to imports of canned pineapples is reflected in the evolution of per capita pineapple consumption. The average American consumed just over 5 pounds (2.3 kg) of fresh pineapple in 2007, up from 1.5 pounds (0.7 kg) annually in 1980. Meanwhile, the annual per capita intake of canned pineapple fell from 3.48 pounds (1.6 kg) in 1980 to 2.54 pounds (1.2 kg) in 2007 (see Figure 7).

Figure 7. US per capita consumption of fresh and canned pineapples, 1980-2007 (in pounds)



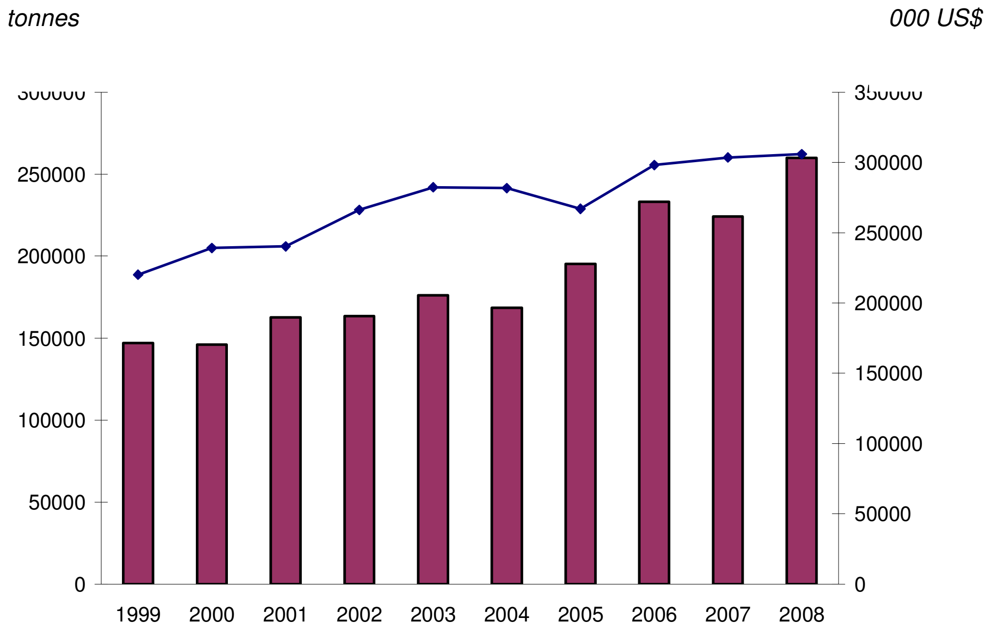
Source: Food Availability Data System, Economic Research Service, United States Department of Agriculture

1.2.2. The market for mangoes in the United States

Commercial mango production in the United States is extremely limited; in fact, the United States Department of Agriculture has not recorded domestic production figures since 1998. While the country produces mangoes in Florida, California and Hawaii, the majority of these mangoes are destined for local markets, with very limited larger scale commercial production. Mango production in both Florida and Hawaii is faced with adverse climatic conditions and expanding urbanization in production areas, and production is decreasing in both states; as a result, reliable statistics are no longer maintained. Meanwhile, commercial mango production in California is a relatively new phenomenon, and is expected to grow only gradually due to the limited availability of suitable land for mangoes, and the long period between first investment and return. California's two commercial mango operations were estimated to produce just over 1 700 tonnes of mangoes in 2006, with a little less than half being certified organic[7]. Meanwhile, total mango production in the United States is believed to have remained limited over the past few years at about 3 000 tonnes annually[8], and consumers are almost entirely dependent on imports to meet domestic demand.

Imports of mangoes (including guavas) into the United States have grown by an average 6 percent annually over the course of the past decade, to reach 305 941 tonnes in 2008. In value terms, imports grew by an average 3 percent annually and reached US$260 million in 2008.

Figure 8. US imports of mangoes (including guavas), 1999–2008 (in tonnes and 000 US$)



In 2008, Mexico accounted for 96 percent of total imports of mangoes (in volume) into the United States, while Haiti and Brazil accounted for 3 and 1 percent of total imports.

According to the National Mango Board, mangoes constitute the largest and fastest growing segment within the market for tropical fruits[9], accounting for over one third of total category sales in 2008, with an average retail price of US$0.91 per piece. According to the organization, the average per capita consumption of fresh mangoes in the United States has quadrupled since 1990, to an estimated 2.2 pounds (1 kg) per year in 2008[10]. The growth in the consumption of mangoes is driven by a number of factors, including year-round

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[7] *USDA-APHIS (2007).*

[8] *Evans (2007).*

[9] *Including mango, kiwi, papaya, pomegranate, tamarindo, dates, coconut, figs, persimmon, cactus pears, star Fruit, guava, sapote, tomatillo, kiwano melon, cherimoya, quince, passion fruit and feijoa.*

[10] *National Mango Board (2009).*

availability, lower prices, consumer preferences, and more disposable income[11]. However, mango consumption remains relatively low when compared to other tropical fruits such as bananas (11.8 kg) and pineapples (2.3 kg)[12], indicating room for future growth.

Mango sales typically peak in late spring / early summer, with the highest sales levels recorded in early May. Consumers in the West and those earning more than US$100 000 annually are the most likely purchasers of mangoes[13]. While Caucasian households account for 43 percent of total mango sales in value terms, the per capita consumption of is highest amongst Asians and Hispanics, who consume 3.5 and 5 times more of the fruit per head than their Caucasian counterparts, respectively.

Consumers in the United States tend to confuse ripeness with colour, preferring red skinned mangoes to non-showy varieties. Key reasons for consumers not to buy mangoes are unfamiliarity with the fruit or lack of knowledge as to how to select a ripe mango or cut and prepare the fruits. Interestingly, 34 percent of consumers who buy mangoes state that they would buy fresh cut mangoes, while 38 percent would buy organic mangoes, if available.

[11] *Evans (2007).*
[12] *National Mango Board (2009).*
[13] *Fresh Trends 2009, cited by The Packer (2009b).*

2. THE MARKET FOR ORGANIC AND FAIR-TRADE PINEAPPLES AND MANGOES

2.1. THE MARKET FOR ORGANIC PINEAPPLES AND MANGOES

2.1.1. The European market for organic pineapples and mangoes

Overview

The value of the European organic market is estimated at €16.2 billion in 2007, up by almost €2 billion in comparison with 2006[14]. Organic fresh fruits and vegetables continue to dominate European sales of organic foods, as fruits and vegetables are often the first products bought by consumers going organic[15]. Rapidly growing consumer interest in healthy and nutritious foods and a widening range of organic foods offered by retailers are fuelling the growth of the market, while the demand for organic products from food processors and foodservice providers is also increasing.

It is the continued popularity of the organic produce segment that is believed to be one of the main drivers behind the growth of the European organic food market. While organic vegetables still account for the bulk of the sales volume, sales of organic fruits are growing fastest[16], and increased sales of organic tropical and exotic fruits are expected to provide the biggest impetus for future market growth[17]. Retailers are expanding their organic fruit ranges as more products, especially tropical and exotic varieties, become available[18], and various sources confirm that the demand for organic fruits is exceeding supply[19].

On a European-wide basis, there is a clear north-south division as to the development of the market for organic fruits and vegetables. While Germany and the United Kingdom dominate the European organic produce market in absolute terms – together, the two countries are estimated to account for over half of total sales of organic fruits and vegetables in Europe – the share of organic fruits and vegetables in total produce sales is highest in Scandinavia and Switzerland[20]. Meanwhile, the market remains much less developed in Southern Europe; for example, organic vegetables account for less than one percent of total vegetables sales in Spain, compared with more than 6 percent in Switzerland, Sweden and Denmark[21]. A major factor behind the success of organic products in Northern and Western Europe is the introduction of organic products by conventional retailers, with a growing number of mainstream supermarkets and discounters extending their offer of organic products, including fruits and vegetables. Meanwhile, in countries such as Spain, Greece, Italy and Portugal, the bulk of organic sales are realized through specialized organic retailers[22].

There are no official trade statistics on organic products, and existing estimates are often outdated, incomplete and inconsistent. The below figures should be interpreted as rough indications of the size of the markets for organic pineapples and mangoes; since they are relatively old, actual figures are likely to be considerably higher.

Pineapples

The European demand for organically grown pineapples was estimated at 5 000 to 6 000 tonnes annually, or 100 to 120 tonnes per week, in 2004. Demand thereby largely exceeded supply, estimated at 8 to 16 tonnes

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[14] Padel, Schaack & Willer (2009).
[15] Organic Monitor (2006).
[16] Pitman (2005).
[17] Pitman (2005).
[18] Organic Monitor (2008).
[19] E.g. Padel, Schaack & Willer (2009); Pilkauskas (2004); Organic Monitor in ITC (2008).
[20] Pitman (2005).
[21] Organic Monitor (2008).
[22] Padel, Schaack & Willer (2009).

per week. Imports are likely to be considerable higher at present following the approval in 2005 of the use of ethylene to induce flowering in organic pineapples; however, precise figures are not available.

Industry sources expect the demand for healthy and organically produced pineapples to increase considerably over the next 10 years[23]. Generally, the growth rate of organic markets is significantly higher than that of conventional markets, and that should hold true for the organic pineapple market too, once the problem of supply has been overcome[24]. Retailers increasingly demand organic pineapples of the MD2 type[25].

Ghanaian Sugarloaf pineapple producer Blue Skies was the first exporter of organic cut pineapple to the United Kingdom, exporting 200–300 kg per week in 1998. Meanwhile, Waitrose became the first retailer in the United Kingdom to sell whole organic pineapples, supplied by Blue Skies, in 2005[26].

Mangoes

Imports of organic mangoes into Europe were estimated at 5 000 tonnes in 2004[27]. Among the largest importers of organic mangoes are Eosta (Netherlands), ProNatura (France), Biotropic (Germany) and Organic Farm Foods (United Kingdom).

While mangoes are still not as well known as pineapples, consumers are becoming increasingly familiar with them, and mangoes are believed to be by far the fastest growing product within the organic tropical fruit segment[28]. According to ITC (2007), consumers prefer fibreless, juicy and tasty varieties with a red-yellowish colour.

One of the exporting countries which has taken advantage of the rapidly growing markets for organic mangoes is Peru. The country saw the value of its overall exports of organic mangoes increase from US$1.72 million in 2006 to US$3.1 million in 2007, up by almost 80 percent. The Netherlands is the most important destination for exports of Peruvian organic mangoes with a total import value of US$1.38 million, followed by the United States, the United Kingdom, Germany, Canada, Spain and New Zealand. Peruvian organic mangoes are exported as fresh (47 percent), pulp (33 percent) or chunks (20 percent)[29].

2.1.2. The market for organic pineapples and mangoes in the United States

Pineapples

The actual value of imports of organic fruits and vegetables into the United States is unknown. While it is estimated that overall fruits and vegetables retail sales (excluding food services sales) include two percent organic products[30], for pineapples this percentage is believed to be much lower due to the lack of supply. According to CIMS, around 1 000 tonnes of fresh organic pineapples were imported into North America in 2004, for a total value of US$2.53 million. These imports accounted for roughly half the total market for organic pineapples, the other half being supplied by Hawaii[31].

According to industry sources, sales of organic pineapples in the United States have increased dramatically over the past few years. While the economic downturn has somewhat slowed down the growth in sales since

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[23] *Bio Exotica (2004).*
[24] *Hinds (2003).*
[25] *Stichting Max Havelaar (2008).*
[26] *Soil Association (2006).*
[27] *ITC (2007).*
[28] *ITC (2007).*
[29] *Organic-Market.Info (2008), based on information from PromPeru.*
[30] *ITC (2001).*
[31] *Cited in Liu (2007).*

2008, the demand for organic pineapples from large retailers and specialty customers remains very strong. The companies currently marketing organic pineapples in the United States include Dole[32] and Rosemont, while Del Monte and Banacol are working towards the introduction of organic pineapples on the market by 2009 and 2010, respectively[33]. Interestingly, industry sources indicate that organically grown pineapples are sold as non-organic in the United States "because the organic market is not big enough"[34].

The development of the US market for organic pineapples has been facilitated by the approval by the National Organic Program, in 2002, of the use of ethylene to induce flowering in organic pineapples.

According to Liu (2007), organic price premiums tend to be higher for pineapples than for other tropical fruits, although premiums fluctuate considerably according to the season and the arrival of imported fruits. The price premium for organic pineapples sold on the San Francisco wholesale market stood at 42 and 13 percent in April and June 2006, respectively[35].

The Fresh Trends 2009[36] report indicates that the likelihood of US consumers purchasing organic pineapples increased three percentage points year-on-year in 2009, with 15 percent of pineapple buyers purchasing the organic version at least some of the time. 4 percent of pineapple buyers purchased only organic pineapples; 11 percent purchased both organic and conventional fruits; and 82 percent of all buyers bought only conventional pineapples. 48 percent of households with an annual income of US$ 100 000 or more had bought organic pineapples at least some of the time, compared with 44 percent of households with an income of US$ 50 000 to 100 000, 37 percent of those with an income of US$ 25 000 to 50 000, and 23 percent of those with an income of less than US$25 000.

Mangoes

Based on CIMS estimates, Liu (2007) estimates that around 4 400 tonnes of organic mangoes were imported into the United States in 2006, up by an average 15 percent annually since 2002. While the share of organics in total mango consumption is unknown, it is believed to be much lower than that for other fruits, due to the current undersupply of the market[37].

Mango has been identified as one of the most promising products for developing country exporters because of the increase in the demand for tropical fruits, and especially mangoes, in the United States[38].

The organic price premium for mangoes sold on the San Francisco wholesale market stood at 11 and 53 percent in February and April 2006, respectively[39]. USAID (2008) indicates retail prices of US$3–4 per piece during early summertime, compared to prices of US$1.50–2 for conventional mangoes, which tend to be a bit smaller than their organic counterparts.

According to USAID (2008), consumers in the United States prefer mangoes that are firm to the touch, have a multi-coloured skin of red, green and/or orange, and are not smaller than the other mangoes offered by their retailer. Consumers often smell the fruit to determine whether it is ripe enough for purchase. The Fresh Trends 2009[40] report indicates that the likelihood of US consumers purchasing organic mangoes decreased 2 percentage points in comparison with 2008, with 19 percent of mango shoppers stating they bought

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[32] *Dole, for example, sources fair-trade organic pineapples from Finca Corsicana, for which it pays a 15 percent organic price premium, and organic pineapples from its subsidiary Ecopiñas del Arenal since 2007 (Cifuentes-Hiss, 2007).*
[33] *David (2009).*
[34] *Cohen-Price (2009).*
[35] *USDA-AMS (s.d.).*
[36] *The Packer (2009a).*
[37] *Liu (2007).*
[38] *Liu (2007).*
[39] *USDA-AMS (s.d.).*
[40] *See <http://thepacker.com/Mangoes/FreshTrends.aspx?articleid=273604&categoryid=150&feedid=255>.*

organic mangoes at least some of the time. Consumers aged 21 to 39 and those living in the West were the most likely to buy organic mangoes exclusively.

2.2. THE MARKET FOR FAIR-TRADE PINEAPPLES AND MANGOES

2.2.1. Overview

According to FLO (2008), 26 424 tonnes of Fairtrade fresh fruits were sold worldwide in 2008, up 1 percent year-on-year. 4 percent of these fruits were also labelled organic[41]. The volumes of fair-trade pineapples and mangoes sold globally stood at 9 200 tonnes and 1 000 tonnes, respectively, in 2008[42].

Annex 1 summarizes the Fairtrade Minimum and Fairtrade Premium for pineapples and mangoes.

The FLO system guarantees a Fairtrade Minimum or floor price for pineapples of €0.07 to US$1 per kg, depending on the origin, variety, use (fresh or processed) and quality (conventional or organic) of the fruits[43]. Meanwhile, the Fairtrade Premium, an additional sum of money that goes into communal funds for workers and farmers to improve social, economic and environmental conditions, stands at between €0.025 and US$0.05 per kg.

For mangoes, the FLO system guarantees a Fairtrade Minimum Price of US$0.55 to US$1.60, and a Fairtrade Premium of between US$0.14 and US$0.45.

2.2.2. The European market for fair-trade pineapples and mangoes

Europe's – and the world's – first fair-trade pineapples and mangoes were imported by AgroFair[44] and went on sale in Co-op stores in the United Kingdom in 2002. As is the case for conventional and organic pineapples, the MD2 variety dominates the market for fair-trade pineapples.

Precise figures regarding sales of fair-trade pineapples and mangoes in Europe are incomplete, as the statistical information published by most national fair-trade organizations does not distinguish between the various types of fresh fruits sold under the fair-trade label. However, since the volume of fair-trade fresh tropical fruits sold in the United States is negligible (see below), it is safe to assume that the 9 200 tonnes of fair-trade fresh pineapples sold worldwide in 2008 were virtually all sold on the European market. According to Max Havelaar Stichting (2008), worldwide sales of fair-trade fresh fruits, and especially mangoes, did not grow as strongly as other product categories (including bananas) in 2008. This sluggish growth is attributed to the economic downturn, which is believed to mostly affect those fair-trade products that have not yet established themselves firmly at retail level and present more risks due to their perishable nature.

With total sales of fair-trade pineapples reaching 2 434 tonnes in 2007[45], Italy accounts for a significant proportion of the European fair-trade pineapple market. By way of comparison, 1 753 tonnes of fair-trade fresh pineapples and mangoes were sold in the country in 2006[46]. Fair-trade pineapples were introduced on the Finnish market in 2003 and currently account for 18 percent of the country's pineapple market, the

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[41] *FLO (2008).*

[42] *Stichting Max Havelaar (2008).*

[43] *In 2006, Fairtrade Labelling Organizations International (FLO) lowered its minimum fair-trade price for organic pineapples, thereby boosting the supply of organic pineapples while at the same time enhancing the competitiveness of fair-trade fruits.*

[44] *AgroFair's suppliers currently include Asproagroin (Costa Rica), BioFair Fruits (Ghana) and Nature's Organic Fresh Pineapples (the Philippines) (AgroFair, s.d.).*

[45] *Fairtrade Italia (2008).*

[46] *Fairtrade Italia (2007).*

highest market share of all fair-trade products sold in the country[47]. 983 tonnes of fair-trade pineapples were sold on the Swiss market in 2007, for a total value of CHF 3.8 million, down 12 percent year-on-year. Fair-trade pineapples thereby accounted for 12.5 percent of the total Swiss pineapple market. The fall in sales revenues, which followed years of strong growth, was attributed to problems relating to the quality of the fruits. However, sales picked up again in 2008, reaching 17 percent of the total market. Meanwhile, 30 tonnes of fair-trade mangoes were sold in Switzerland in 2007, for a total value of CHF 341 000 (or 1 percent of the Swiss market for mangoes), down 5 percent in comparison with the previous year due to the lack of year-round supplies[48]. Sales of fair-trade pineapple in the Netherlands increased by 2 percent year-on-year in 2008, to 270 tonnes. The bulk of fair-trade pineapples sold in the country were sourced from Costa Rica, but it is expected that the market share of pineapples from Africa, and especially Ghana, will increase as West African producers are increasingly shifting to the MD2 variety. Meanwhile, 75 tonnes of fair-trade mangoes, imported from Burkina Faso and Brazil, were sold in the Netherlands in 2008, half the volume sold in the previous year. The decline in sales is attributed to quality problems, as well as to the reticence of supermarkets to sell the fruits[49].

In 2005, Ghanaian pineapple producer and exporter Blue Skies (see 2.1.1.) obtained fair-trade certification for exports of organic fresh-cut Sugarloaf pineapples. Blue Skies immediately shipped 1 200 boxes of fair-trade fruit to the Netherlands, to be marketed by Dutch retailer Royal Ahold. The fair-trade label meant a five-fold increase in income for Blue Skies' farmers. In 2005, their pineapples sold for US$0.20 per kilo, with an extra five cent premium for community projects to provide clean drinking water and build classroom expansions[50]. Meanwhile, Ghanaian Bio Exotica obtained fair-trade certification for its organic pineapples in May 2009[51].

2.2.3. The market for fair-trade pineapples and mangoes in the United States[52]

Fair-trade tropical fruits like bananas, mangoes, and pineapples became available in the United States in 2004. However, imports of fair-trade pineapples have remained extremely limited. 214 tonnes of fair-trade certified pineapples were imported from Costa Rica into the United States in 2004; this volume fell to negligible levels in subsequent years. The market control exerted by the large fruit companies is seen as an obstacle to the development of the market for fair-trade pineapples. Sales of fair-trade mangoes in the United States took off rapidly during the first three years after their introduction on the US market, but fell back considerably in 2007. In 2008, total sales of fair-trade mangoes stood at 35 tonnes, six times lower than the volume sold in 2006. According to TransFair USA, demand is strong, but supply is seasonal, which makes it difficult to build momentum[53]. If fair-trade organizations manage to raise consumer awareness and convince retailers to include fair-trade products in their product range, the market for fair-trade pineapples and mangoes may take off rapidly[54].

Table 1 summarizes the available data regarding global sales of fair-trade pineapples and mangoes.

[47] *Fairtrade Finland (2009).*
[48] *Max Havelaar Stiftung Schweiz (2007).*
[49] *Max Havelaar Stichting (2008).*
[50] *USAID (2009).*
[51] *Bio-Markt.Info (2009).*
[52] *TransFair USA (2008).*
[53] *Cited in Liu (2007).*
[54] *Liu (2007).*

Table 1. Sales of fair-trade pineapples and mangoes, 2007 (in tonnes)

	Pineapples	Mangoes
Italy	2 434	n.a.
Switzerland	983	30
Netherlands	265	75
United States	0	10
Worldwide	9 200	1 000

Source: Fairtrade Italia (2008), Max Havelaar Stiftung Schweiz (2007), Max Havelaar Stichting (2008), TransFair USA (2008).

2.3. MARKET OUTLOOK

The market for organic and fair-trade certified tropical fruits, including pineapples and mangoes, offers interesting prospects for suppliers from developing countries, as it is bound to expand in the light of a number of current developments.

First, consumers in developed countries are increasingly concerned about their health, and becoming ever more aware of the importance of a healthy diet – in which fruits and vegetables play a crucial role. A recent market study in the United States, for example, indicated that the main reason why consumers increase their consumption of fruits and vegetables is health related[55]. However, consumption in both Europe and the United States is still well below the recommended 5 to 10 servings a day, indicating considerable potential for future growth.

Tropical fruits are likely to do especially well in the growing market for fruits and vegetables. Indeed, the consumption of tropical fruits has risen considerably in recent years in both Europe and the United States, fuelled by rising disposable incomes and consumers' preferences for novelty and tropical products, and is expected to continue doing so over the coming years[56]. Tropical fruits are perceived as nutritious, healthy, good in taste, attractive and special[57]. As the production of pineapples and mangoes in both Europe and the United States is extremely limited, the bulk of the growing demand in both regions for tropical fruits will have to be met by imports, mostly from developing countries.

While the increasing health-consciousness of consumers is expected to stimulate sales of fruits and vegetables in general, organic fruits and vegetables are likely to benefit most, as organic foods are often considered healthier than their conventionally produced counterparts[58]. Indeed, health is consistently cited as one the main reasons for buying organic foods[59], and this holds especially for fruits, which are often associated, not only with a healthy lifestyle, but also with a high incidence of pesticide residues. Young parents and the elderly are among the most health-conscious consumer groups, which makes them the most likely purchasers of organic fruits[60].

The importance of health considerations in consumers' decisions to buy fruits is well understood by the National Mango Board in the United States, which in its 2009 Mango Category Retailer Toolkit repeatedly emphasizes the importance of educating consumers about the health benefits of mango consumption in any marketing strategy for the fruit.

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[55] *National Mango Board (2009).*
[56] *Joyce (2009).*
[57] *Sabbe, S., Verbeke, W. & Van Damme, P. (2008).*
[58] *See e.g. <http://www.guardian.co.uk/science/2007/oct/29/organics.sciencenews>.*
[59] *Chinnici, G., D'Amico, M. & Pecorino, B. (2002).*
[60] *Organic Monitor (2006).*

Second, consumers are becoming increasingly concerned about the environmental and social implications of the production of their food, and the purchasing of environmentally and socially labelled foods is increasingly seen as a way to ensure the sustainability of one's consumption patterns. This trend is expected to benefit organic fruits and vegetables in particular, as fruits and vegetables are often the first organic products bought by shoppers going organic[61].

Third, the growing demand for "ethically" produced fruits by consumers is fuelling an increasing involvement of both multinational suppliers and mainstream retailers in the market for certified fruits. It has now become the norm for large corporations to include Corporate Social Responsibility (CSR) into their overall corporate strategy. Social and/or environmental labelling is seen as a clear and credible sign of corporations' commitment to CSR principles[62]. Meanwhile, the increasing availability and visibility of ethically labelled fruits on supermarket shelves is strengthening consumers' interest in and willingness to purchase these products.

According to Liu (2007), organic mangoes and pineapples – and especially the MD2 variety – offer the best market opportunities in the United States for producers and exporters in developing countries due to the current undersupply of the North American market. For pineapples, the author advises suppliers to seek collaboration with the large multinational fruit companies which control the bulk of the market (Del Monte, Dole, Chiquita), arguing that these companies do not market large quantities of organic pineapples at present, and may be interested in expanding their product range. Similarly, FiBL (2006) argues that the European market for organic tropical fruits offers many opportunities for producers in developing countries as both consumers' and retailers' interest in this product category grows. According to FiBL, the market is particularly promising for those suppliers that can provide good quality fruits at good prices; ensure full traceability of their fruits; guarantee on-time deliveries; and meet their customers' product requirements. It is expected that the importance of double-labelled (organic and fair-trade) fruits will increase in the near future. However, the institute also argues that the European market for organic tropical fruits faces a number of challenges, including the inconsistency of supplies and suppliers' inability to meet consumer expectations as to the quality of their fruits. Indeed, organic consumers are particularly discerning as to their food purchases[63], and typically expect a higher product quality; they will not accept an under-ripe fruit, or a fruit that has been picked before its maturity to allow for ripening during transportation[64].

Contrary to bananas, which constitute by far the most important product within the fair-trade fruit segment, sales of fair-trade pineapples and mangoes have been slow to take off in both Europe and the United States, due to the lack of year-round supplies and problems relating to logistics and quality. In addition, retailers are often reluctant to add yet another – inherently risky – fruit category to their range, which is seen as extra work for little profit. In the case of pineapples, the exclusive arrangements between retailers and the dominant multinational fruit companies are seen as a further barrier to the development of the fair-trade segment. The lack of consumer awareness of fair-trade products is a further major impediment to the development of the category in the United States. If suppliers and fair-trade organizations manage to overcome these obstacles, sales of fair-trade tropical fruits, including pineapples and mangoes, should be able to reach more significant levels in the future. Sales of fair-trade bananas, for example, account for 20 and 50 percent of the total banana market in the United Kingdom and Switzerland, due to the decision by a number of major retailers to exclusively carry fair-trade bananas[65].

[61] *Organic Monitor (2006).*

[62] *Liu (2007).*

[63] *Organic Monitor (2006).*

[64] *USAID (2008).*

[65] *Liu (2007).*

The niche market of ready-to-eat, pre-cut pineapple and mango may offer interesting opportunities for future development[66,67]. Both pineapples and mangoes are often regarded as "complicated" fruits, requiring a lot of preparation, and the lack of consumer knowledge on how to prepare them is a major impediment to purchasing[68]. Consumers may be enticed to eat more pineapple and mango by offering ready-to-eat products, in line with the trend towards convenience foodstuffs with limited preparation time. In Europe, the United Kingdom is the most interesting market for these convenience products, but other markets are growing too[69].

Ironically, now that the MD2 or Extra Sweet variety is so dominant, CTA (2009) indicates that a good quality Smooth Cayenne pineapple has a better chance than before of finding a buyer. The organization cites the example of Benin, whose exports, though modest (around 2 000 tonnes annually at present), are steadily rising, due to the country's strategy of targeting the "burgeoning market for the well-flavoured Sugarloaf variety".

[66] *Kisambira (2008).*
[67] *Centeno (2006).*
[68] *National Mango Board (2009).*
[69] *ITC (2007).*

Annex 1. FLO Fairtrade Minimum Price and Fairtrade Premium for pineapples and mangoes, per kg (unless indicated otherwise)

Pineapples						
Country	**Variety**	**Quality**	**Price level**	**Currency**	**Fairtrade Minimum Price**	**Fairtrade Premium**
Benin	Smooth Cayenne	Conventional	FOB	€	0.03	0.04
	For processing	Conventional	Farm gate	€	0.09	0.025
Cameroon	Smooth Cayenne	Conventional	FOB	€	0.30	0.04
		Organic	FOB	€	0.41	0.04
	For processing	Conventional	Farm gate	€	0.05	0.025
		Organic	Farm gate	€	0.07	0.025
Costa Rica	MD2	Conventional	FOB	US$	0.70	0.05
		Organic	FOB	US$	1.00	0.05
		Conventional	EXW	US$	0.57	0.05
		Organic	EXW	US$	0.70	0.05
Ghana	Smooth Cayenne	Conventional	FOB	US$	0.45	0.05
		Organic	FOB	US$	0.60	0.05
	MD2	Conventional	FOB	US$	0.60	0.05
		Organic	FOB	US$	0.90	0.05
	Prepared and chilled	Conventional	FOB	US$	0.86	0.05
	MD2 for processing	Conventional	Farm gate	US$	0.205	0.05
	Sugarloaf for processing	Organic	Farm gate	US$	0.205	0.05
Peru	For processing	Organic	Farm gate (MT)	US$	217	30
South Africa	Smooth Cayenne for processing	Conventional	Farm gate (pre-packed)	ZAR	0.57	0.19
Togo	Smooth Cayenne	Organic	Farm gate (pre-packed)	€	0.16	0.04
Swaziland	For processing	Conventional	EXW	ZAR	0.57	0.19
Uganda	For processing	Organic	EXW	€	0.10	0.027

Mangoes					
Country	**Quality**	**Price level**	**Currency**	**Fairtrade Minimum Price**	**Fairtrade Premium**
Central America	Conventional	Farm gate	US$	0.75	0.14
		FOB	US$	0.85	0.14
	Organic	Farm gate	US$	0.85	0.14
		FOB	US$	0.95	0.14
Haiti	Conventional	Farm gate (fruit units)	US$	1.45	0.45
	Organic	Farm gate (fruit units)	US$	1.60	0.45
South America	Conventional	Farm gate	US$	0.70	0.14
		FOB	US$	0.80	0.14
	Organic	Farm gate	US$	0.80	0.14
		FOB	US$	0.90	0.14
Mexico	Conventional	Farm gate	US$	0.55	0.14
		FOB	US$	0.63	0.14
	Organic	Farm gate	US$	0.62	0.14
		FOB	US$	0.70	0.14
Peru	Organic (for processing)	Farm gate (MT)	US$	204	30
Colombia	Conventional (for processing)	EXW (MT)	US$	235	30
	Organic (for processing)	EXW (MT)	US$	265	30
Western Africa	Conventional	Farm gate	€	0.70	0.14
		FOB	€	0.80	0.14
	Organic	Farm gate	€	0.80	0.14
		FOB	€	0.90	0.14
South Africa	Conventional	Farm gate (pre-packed)	ZAR	2.42	0.31
	Organic	Farm gate (pre-packed)	ZAR	3.78	0.49

Source: FLO (2009)

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