Food and Agriculture Organization of the United Nations

MAJOR TROPICAL FRUITS

MARKET REVIEW

2017

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MAJOR TROPICAL FRUITS

MARKET REVIEW

2017

Food and Agriculture Organization of the United Nations
Rome, 2019

Foreword

This report is issued on an annual basis to Members and Observers of the Sub-Group on Tropical Fruits of the Intergovernmental Group on Bananas and Tropical Fruits, which is a subsidiary body of the Committee on Commodity Problems (CCP). It is prepared by the Team on International Investment and Tropical Fruits, Trade and Market Division, FAO, Rome, and the tables contained bring together the information available to FAO, supplemented by data obtained from other sources in particular with regard to preliminary estimates.

The Team on International Investment and Tropical Fruits provides research and analyses on agricultural investments in developing countries, and economic data and analyses on tropical fruits. Regular publications include market reviews, outlook appraisals and projections for bananas and tropical fruits. The team also provides assistance to developing countries in designing and implementing national policies regarding responsible investment in agriculture. The report is available at the following FAO website: http://www.fao.org/economic/est/est-commodities/tropical-fruits/en/

Contents

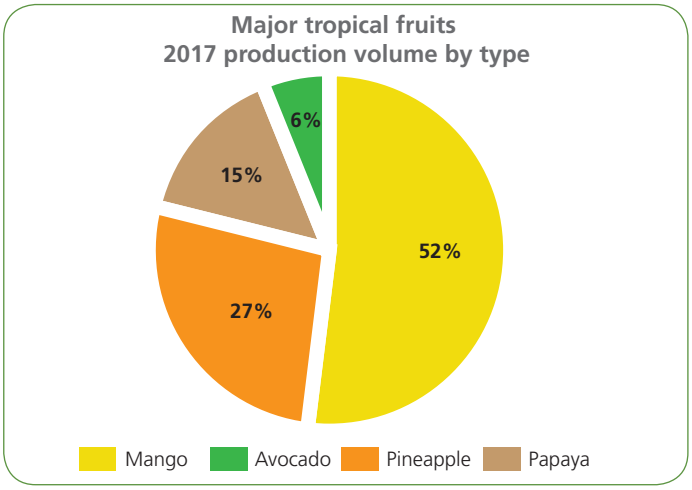
Developments in production and trade of major tropical fruits 2017

Production

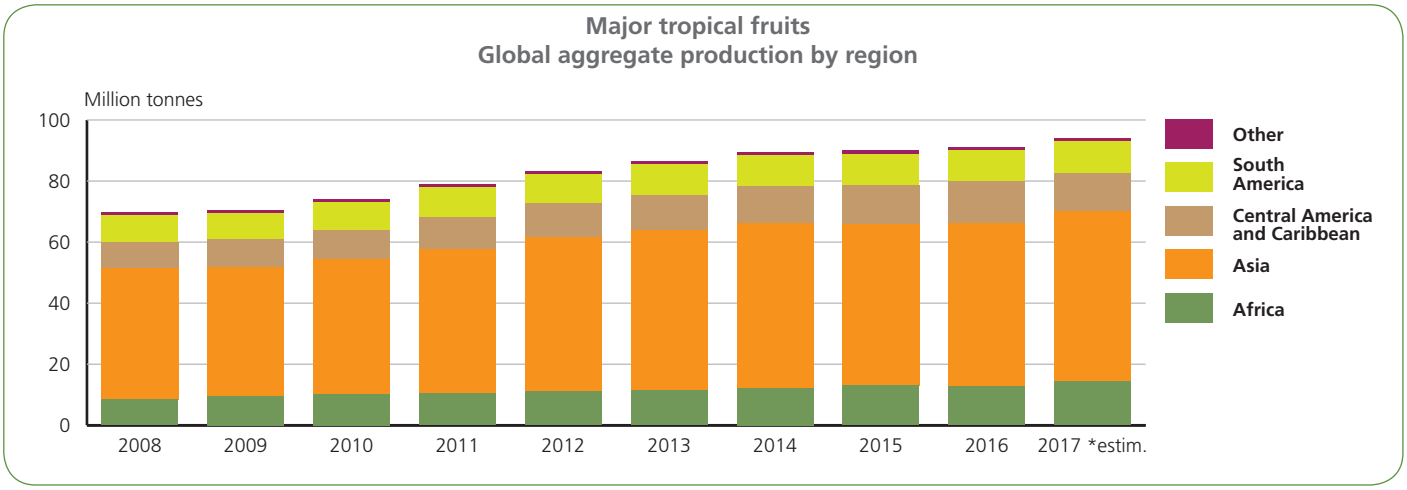
Global aggregate production of major tropical fruits was estimated at 93.7 million tonnes in 2017, following a year-to-year increase of 3 percent from 2016. This marked a slight slowdown compared to the 4-percent average annual growth rate seen over the previous decade, but a healthy recovery from the weather-related difficulties observed in 2015 and 2016. Strong output growth in Asia, the main producing region, counterbalanced the declines registered by most other producing regions in 2017.

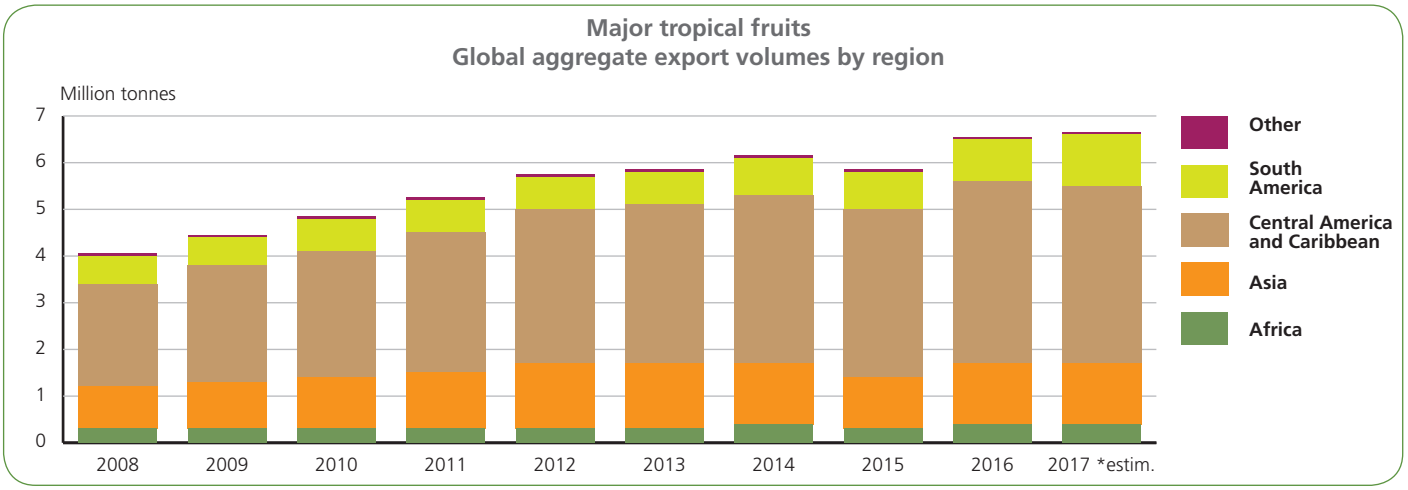
Obstacles to production were observed for all major tropical fruits and were chiefly attributable to adverse - and at times severely disruptive - weather conditions in the main growing regions. However, on the back of fast growing global demand, producing countries continued to increase the area under tropical fruits. This rise partly offset weather-related supply disruptions in susceptible regions, thus averting more serious supply shortages.

In terms of production volume, mango ranked as the predominant tropical fruit variety, due to the commodity's popularity in India, where an estimated 40 percent of global production originates. Total production of mango accounted for more than half of total global major tropical fruit production in 2017. Pineapple ranked second in global production thanks to robust international demand, largely met by Costa Rica, the world's leading producer and exporter of pineapple, and by significant domestic consumption in Brazil, the second largest producer of pineapple. Papaya and avocado meanwhile account for significantly lower volume shares. Papaya is mainly produced and consumed in India and Brazil, where population growth has sustained domestic demand. Avocado production predominantly takes place in Mexico, from where it caters to both the domestic and export markets.



When viewed in terms of producing countries, the leading producer of major tropical fruits is India, accounting for an estimated 30 percent of total global major tropical fruit production in 2017, due to its strong position in the production of mango and papaya. India accounts for approximately 40 percent of total global mango and papaya production, which is predominantly destined for its domestic market. Other significant producers of tropical fruits include China and Brazil, where again produce is mainly destined for domestic consumption, and Mexico, which ranked as the second largest exporter of major tropical fruits behind Costa Rica in 2017.





Trade

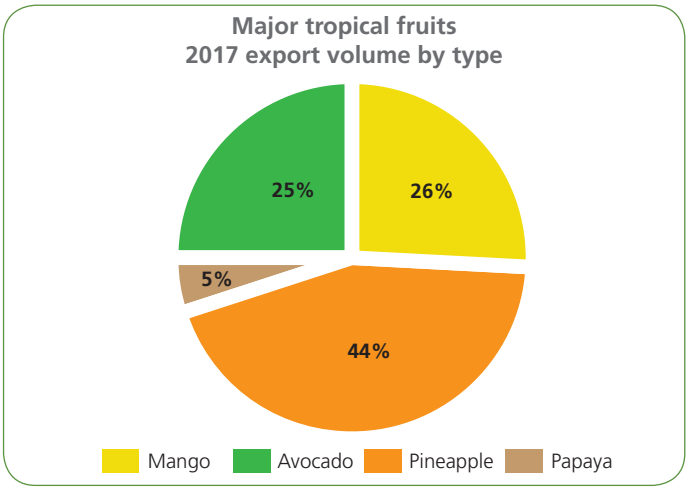
Global trade in major tropical fruits remained at an estimated 6.6 million tonnes in 2017, following a slight contraction of 1 percent or 64 000 tonnes from the previous year. Trade prospects overall would have been higher, had it not been for adverse weather conditions in the leading exporting countries of Mexico (avocado, mango and papaya) and Costa Rica (pineapple). In both exporting countries, supply shortages led to subsequent disruptions in the pace of shipments during the first three quarters of 2017, and also in the last quarter of the year owing to hurricane damage to production.

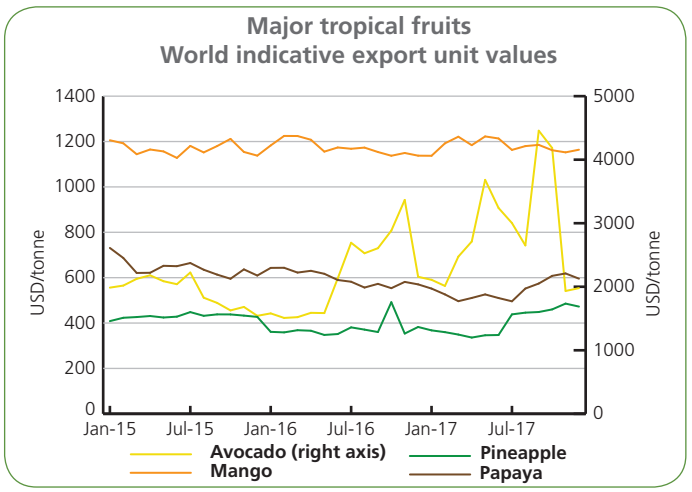
Globally, pineapple, mango and avocado are the three most significantly traded tropical fruits, bananas aside. Papaya meanwhile is traded in much lower volumes, but continued to witness ample export growth in 2017.

On the demand side, changing consumer preferences in developed country markets continued to be the predominant factor fueling the expansion in global shipments. Particularly in the United States of America and the European Union, the two largest import markets, increasing health consciousness and more widespread awareness of the nutritional benefits of tropical fruits are contributing to fast growing consumption. In developing countries - most prominently in India and China - rising incomes, expanding markets and an intensifying consumer interest in healthy nutrition are similarly paving the way for higher consumption of tropical fruits, particularly in the increasingly prosperous urban areas of the emerging economies.

Prices

Price movements of major tropical fruits are influenced by various factors, but are invariably intrinsic to the supply and demand conditions of the respective commodity. While export unit values for mango largely followed their regular seasonal variations in 2017, the supply shortages experienced by pineapples and avocados resulted in steep increases in export unit values for both commodities. Export unit values for papaya, meanwhile, trended downwards on the back of fast growing supplies during the first half of the year, and displayed an upward movement in the second half of the year on account of supply disruptions related to phytosanitary concerns.





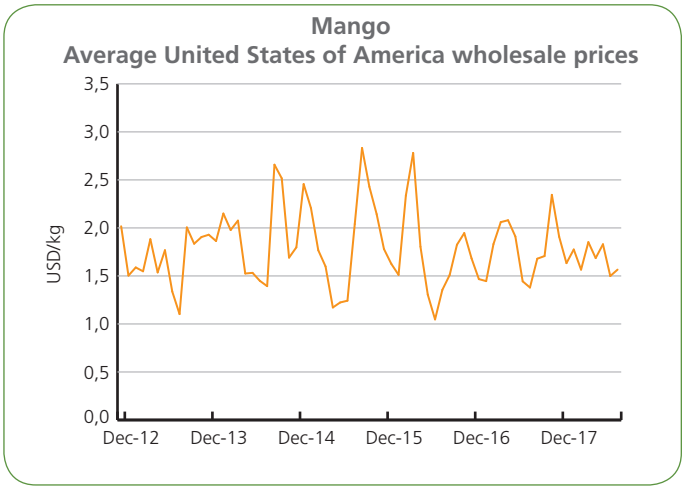
Commodity Briefs

Mango, mangosteen and guava

Mango, mangosteen and guava comprise by far the world's most sizeable group of tropical fruits, thanks to the large volumes of mango production. Provisional figures for 2017 indicate that world production reached 48.4 million tonnes, an increase of 4 percent over 2016. Given that international commodity classification schemes for production and trade do not require countries to report the fruits within this cluster separately, official data remain sparse. It is estimated that, on average, mango accounts for approximately 75 percent of total production volume, guava for 15 percent and mangosteen for the remaining 10 percent.

In terms of regional distribution, approximately 75 percent of mango, mangosteen and guava production originated in Asia, 15 percent in Africa and 10 percent in Latin America and the Caribbean in 2017. Production in India, the major producing country, increased by an estimated 1 million tonnes in 2017, or 6 percent, on the back of a 4 percent gain in land productivity and a 3 percent expansion in harvested area. With a provisionally reported output of 19.7 million tonnes in 2017, India accounted for approximately 40 percent of total global production, almost exclusively mango and guava. Mango production in India is primarily destined for consumption within the country, thanks to ample domestic demand and strong domestic prices, which render the national market highly lucrative to producers. This also applies to guava, of which only a negligible fraction is exported. Mangosteen production remains low in India; nevertheless, it has displayed fast growth in recent years due to the crop's assumed health benefits and ease of cultivation.

Global exports of mango, guava and mangosteen reached an estimated 1.7 million tonnes in 2017. This represents a 9 percent increase from 2016, significantly higher than the 5 percent average annual growth registered between 2007 and 2016. The expansion follows strong growth in demand in the main export destinations, namely the United States of America, which expanded its import share to 34 percent of global imports, and the European Union, which held a 20 percent global share in 2017. Of the commodity cluster, mango's main importers have found growing consumer interest, thanks to favourable preferences and increased nutritional awareness. The latest available figures indicate that per capita availability of mangoes reached 1.8 kg in the United States of America and 0.7 kg in the European Union in 2017, up from 1 kg and 0.4 kg in 2007, respectively. In terms of export volumes, mango accounts for approximately 90 percent of global shipments, with guava and particularly mangosteen displaying a low availability in import markets.



Mexico remained the undisputed leading exporter, with an estimated volume share of 24 percent in 2017, followed by Thailand (14 percent), Brazil (10 percent) and Peru (9 percent). Mexico primarily exports mangoes to the United States of America (approximately 80 percent of the country's entire shipments in 2017) and benefited strongly from a combination of favourable weather in the main production areas and higher import demand for the fruit in 2017, expanding overall shipments by 19 percent. Mango exports from Brazil are mainly destined for the European Union market, where the country maintains a strong position through its ability to produce mangoes perennially, including a number of varieties that are popular in European markets, among them Tommy Atkins, Keitt and Kent. In 2017, mango exports from Brazil additionally benefited from growing demand in the United States of America. Thailand, which also ranks as one of the leading exporters of mangosteen, ships the bulk of its mango production to foreign markets, primarily to destinations within the confines of the Southeast Asian region. Peru exports mainly fresh mango and mangosteen, with approximately 40 percent of shipments going to the Netherlands, 30 percent to the United States of America and 10 percent to the United Kingdom in 2017.

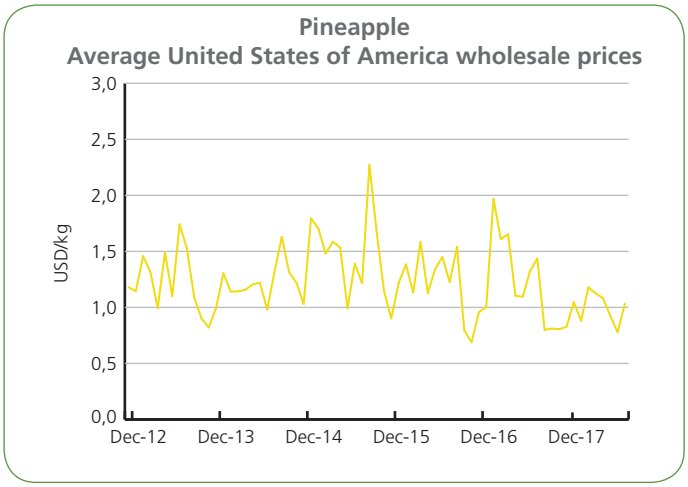
The United States of America wholesale prices of mangoes continued to strongly reflect seasonal fluctuations in supply and demand, with prices reaching a trough in July and August 2017, when demand was hampered by competition from locally produced fruits. In light of ample supplies and a larger number of traders offering mangoes at the terminal markets in 2017, the United States of America wholesale prices remained well below the peaks of USD 2.80/kg seen in September 2015 and April 2016.

Pineapple

Pineapple, the second-ranked tropical fruit in terms of importance in world production, registered only a fractional increase in output in 2017 on account of weather-related crop damages in Costa Rica, the main producer of pineapple in the world. This marks a significant curtailment of global production growth compared to the average annual rate of 4 percent seen over the previous decade until 2016. Overall, global pineapple production stood at a total of approximately 25.8 million tonnes in 2017.

Costa Rica, which accounted for about 11 percent of total global production in 2017, suffered severe disruptions to the harvest in the first half of the year, which resulted in an estimated 6 percent decline in production in 2017 from 2016. The country's prolonged and intense 2016 rainy season, which lasted until December, and the drought that followed in January and February of 2017, caused significant damage to production. While the flooding resulted in delays to the flowering period of the plants, the subsequent drought affected the brix (sweetness) level of the harvest. Other major producers of pineapple include Brazil and the Philippines, with an estimated volume share of 11 and 10 percent, respectively, in 2017, followed by China, India and Thailand. Production in Brazil, China and India is primarily destined for the domestic fresh market owing to strong internal demand and competitive retail prices. Thailand is the world's leading producer and exporter of processed pineapple.

On the back of supply shortages, global exports of pineapple fell to an estimated 2.8 million tonnes in 2017, representing a 9 percent decline from 2016. Costa Rica, which accounted for approximately 65 percent of global exports, experienced an estimated 10 percent fall from 2016, as adverse weather rendered a significant share of the country's produce unfit for export. Shipments from Costa Rica are almost exclusively destined to the United States of America and the European Union, at shares of 60 and 40 percent, respectively. The Philippines, the second largest exporter with an approximate global volume share of 17 percent in 2017, similarly witnessed an estimated 9 percent decline in exports. Shipments from the Philippines are primarily destined to East Asia, with a large share exported in processed form. African ACP[1] exporters, which



accounted for a large share of shipments to the European Union until the mid-2000s, continued to experience low trade volumes due to the difficulty of competing with the very low prices of Costa Rican pineapples.

Despite the supply shortages in Costa Rica, imports by the United States of America, the largest importer of pineapple globally, increased by an estimated 7 percent in 2017 from the previous year on the back of strong demand. They reached approximately 1.2 million tonnes in 2017, or 40 percent of total global import volumes. The popularity of pineapples in the United States of America is aided by the fact that they are the cheapest of the four major tropical fruits, with United States of America wholesale prices averaging USD 1.24/kg in 2017, and a widespread ingredient of juice mixes. Similarly, imports by the European Union (excl. intra-trade) grew by an estimated 11 percent from 2016, reaching a new height of approximately 940 000 tonnes. Per capita availability of pineapple stood at approximately 3.3 kg in the United States of America and 2 kg in the European Union in 2017.

The United States of America wholesale prices reflected the shortages in supply during the first few months of the year, with average prices rising sharply between December 2016 and January 2017 and remaining above USD 1.50/kg until May 2017. Larger volumes during the second half of the year meanwhile resulted in a significant drop to around USD 0.80/kg in the second half of the year. Prices of standard pineapple are typically restrained by strong competition in the global value chain as the fruit is sold at low prices in key export markets such as the United Kingdom and Germany.

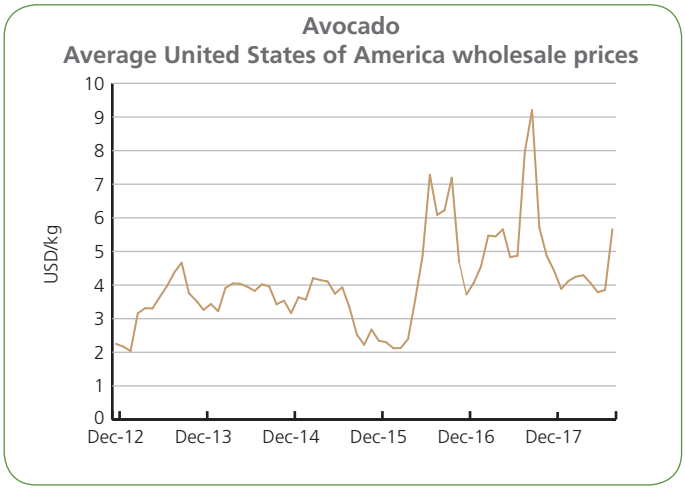
1 African, Caribbean and Pacific Group of States

Avocado

Global production of avocado reached an estimated 5.7 million tonnes in 2017, representing a 2 percent increase from 2016. On the back of rapidly growing global demand, avocado, among all the major tropical fruits, has seen the fastest production growth over the last decade, primarily due to increases in harvested area in the major producers. Nevertheless, in global production terms, avocado remains the smallest of the major tropical fruits.

Nearly half of all production takes place in Central America and the Caribbean, largely owing to the strong position of Mexico and the Dominican Republic. Production in Mexico alone accounted for more than one-third of global output in 2017. Although adverse weather conditions in the country affected both the quantity and quality of the harvest in the first nine months of the year, overall, 2017 Mexican production increased by 6 percent from 2016, reaching a new peak of nearly 2 million tonnes. Production in the Dominican Republic, hitherto the world's second leading producer of avocado, experienced significant hurricane damage in October 2017 and incurred an estimated 55 percent output decline in 2017 compared with 2016. Accordingly, the share of the Dominican Republic in global production dropped to 5 percent in 2017. Peak harvest period in the Dominican Republic is between October and March, when approximately 80 percent of production is harvested, making the crop particularly vulnerable to hurricane damage. Production in Peru, meanwhile, registered a 22 percent increase over 2016, following a near equivalent increase in harvested area, which was stimulated by strong import demand from the European Union, the largest export destination for supplies from Peru. Consequently, Peru ranked as the second leading producer of avocado, with an estimated 10 percent volume share in 2017.

Global exports of avocado reached 1.6 million tonnes in 2017, representing a 3 percent increase from 2016, significantly slower than the 11 percent average annual growth rate seen over the previous decade. Mexico accounted for an estimated 58 percent of global avocado exports, with shipments predominantly destined to the United States of America. In the period 2010 to 2016, Mexico shipped an average of 77 percent of its avocado exports to the United States of America. Mexico's strength lies in its ability to produce avocado in all seasons and also its close proximity to the United States of America, which gives the country a unique competitive advantage. However, on the back of weather-related production disruptions, 2017 shipments from Mexico declined by an estimated 4 percent from 2016, a significant slowdown



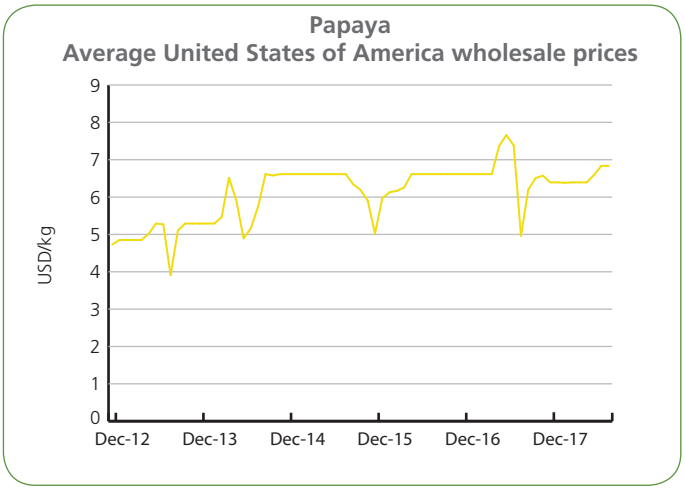
compared to the 15 percent annual average growth rate achieved between 2007 and 2016. Other significant exporters are Peru, Chile, South Africa, Israel and Kenya, which all primarily export to the European Union and have benefited from fast growth in its import demand for avocado. Mexico is a less prolific exporter of avocado to the European Union, as prices received in the United States of America are significantly more lucrative. The Dominican Republic, meanwhile, primarily engages in the production of tropical avocados, which are considerably more susceptible to damage in transit than the more resilient Hass variety, due to their softer peel. Furthermore, its exports of tropical avocados have been subject to an import ban in the United States of America since March 2015, following a Mediterranean fruit fly outbreak. Accordingly, exports by the Dominican Republic represent only a small fraction of its production.

The main export destinations for avocado are the United States of America, with an approximate share of 52 percent in 2017 and the European Union, with a 28 percent share. In the United States of America, per capita fresh fruit retail availability of avocado reached an estimated 3.6 kg in 2017. The latest available data for the European Union indicate a per capita avocado availability of 1 kg on average in 2017, with the key avocado-consuming markets of France and the United Kingdom reaching an estimated 1.6 kg and 1.3 kg per capita, respectively. Demand for avocado has been supported by the fruit's assumed health benefits related to its very high nutritional value.

As a share of production, trade in fresh avocados is the highest of the major tropical fruits and reached an estimated 28 percent in 2017. Avocado is also the only fruit for which developed countries account for a non-trivial share of production, with the United States of America

accounting for approximately 3 percent of global volume in 2017, primarily for domestic consumption.

The United States of America wholesale prices displayed a high susceptibility to changes in supply and demand in 2017, in addition to the usual variations due to seasonality and the different varieties of avocado, which feature different sizes and quality levels. The significant shortages in supply experienced during large parts of 2016 and 2017, coupled with fast expansion in demand in the United States of America, resulted in prices temporarily reaching more than USD 9/kg in September 2017.



Papaya

Global production of papaya reached an estimated 13.7 million tonnes in 2017, up 5 percent from the 2016 level. Due to the crop's stronger resilience to adverse weather conditions, papaya production experienced significantly less disruption from adverse weather events than other tropical fruits in 2017, and exceeded the average annual growth rate of 3 percent registered over the past ten years. In terms of regional distribution, an estimated 56 percent of global papaya production originated from Asia in 2017, 33 percent from Latin America and 11 percent from Africa.

India, the largest papaya producer in the world, with an estimated 45 percent output share in 2017, registered 7 percent production growth from 2016, largely due to increases in the harvested area. Indian papaya production is mainly destined for internal consumption, as domestic demand has been supported by rising incomes and changing consumer preferences. These factors have stimulated India's fast expansion of papaya production, which saw output double between 2007 and 2017.

Production in Brazil, the second largest producer in the world, increased by an estimated 6 percent from 2016, after recovering from a drought-induced production decline estimated at 4 percent in 2016. While the largest share of production in Brazil is also destined for the domestic market, the country ranks as the second largest exporter behind Mexico and has rapidly raised its export volumes in response to growing demand from the United States of America and the European Union.

Global exports of papaya reached an estimated 350 000 tonnes in 2017, an annual increase of 5 percent from 2016. This assessment points to a healthy recovery from the estimated 6 percent decline in export volumes experienced in 2016, caused by weather-related supply shortages in Brazil and Guatemala. Mexico, the leading international supplier, accounts for approximately half of all global papaya exports, with shipments almost exclusively destined to the United States of America. Fast growth in import demand from the United States of America gave Mexican producers a strong incentive to invest in technological advancements, resulting in a 6 percent improvement in average yields between 2010 and 2015. However, despite production surpassing 1 million tonnes in 2017 following an estimated growth of 7 percent, papaya exports from Mexico declined by approximately 0.4 percent in 2017. A widely reported salmonella outbreak linked to the consumption of Mexican papayas across the United States of America in August 2017 significantly disrupted United States of America demand for Mexican papaya in the third and fourth quarter of the year.

Of the major tropical fruits, papaya is the least traded fruit, but it has seen promising growth over the past decade. The largest importers of papaya in 2017 were the United States of America, with an estimated 57 percent volume share, and the European Union, with an approximate 13 percent volume share. Latest available data indicate a per capita availability of 0.6 kg in the United States of America in 2017, up from 0.4 kg in 2005. Despite the European Union ranking as the second largest importer, consumer awareness of the fruit remains low, with per capita consumption of papaya remaining at a negligible level of 0.1 kg in 2017. Promotion of the fruit and its nutritional benefits are therefore key to supporting import demand and further growth, particularly in the European Union.

The United States of America wholesale prices displayed a tendency to increase during the first half of 2017 on the back of ample growth in demand, but were subsequently subdued by the slowdown in United States of America demand, dipping below USD 5/kg in August 2017 - a level last observed in December 2015.

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