

Banana

Origin:Banana is a fruit of Asian origin, whose consumption has spread throughout the world, it is cultivated in all tropical regions, throughout the year, it has a fundamental importance for the economies of many developing countries. In terms of gross value of production, bananas are the fourth most important food crop in the world, after rice, wheat and corn.

Most of the production is oriented to self-consumption and a very small rate to foreign trade, the most important clients being the countries located above 30 ° north latitude, and below 30 ° south latitude. It is the most exported fresh fruit in the world, in terms of volume and value.

Background:The plantains and bananas that we know today had their origin in the regions of Southeast Asia and the Pacific in whose forests can still be found diploid ancestral specimens, inedible and with seeds. Bananas are believed to have been brought from Indonesia to Madagascar across the Indian Ocean around 500 BC and from there to East Africa, Zaire, and West Africa. Cooking plantains are later distributed outside Asia, but both were present on the West coast of Africa in the 14th-15th centuries when the Portuguese first arrived, bringing these plants to the Canary Islands, and from there (in 1516), were introduced in Santo Domingo (Dominican Republic). This was the first of subsequent introductions in the Caribbean, Central America and South America,

Differences between banana and plantain: Bananas and plantains were originally classified by Carl Nilsson Linnaeus, in 1753, as Musa paradisiaca, which refers to hybrids and cultivars of the wild species Musa acuminata and Musa balbisiana, according to the rules of the International Code of Botanical Nomenclature. The generic name given by Linnaeus (Musa Paradisiaca) has been respected and continues to be used when it comes to banana and plantain, with the understanding that it is a hybrid. However, there is a certain difference when a greater genetic presence of Musa balbisiana is observed, it is known as banana, which due to its higher starch content must be eaten cooked, roasted or fried; while bananas with a higher genetic content of Musa acuminata are consumed as dessert fruits. But an important difference between banana and plantain, is its moisture content, the banana contains an average of 65% moisture and the banana, 74%. Since hydrolysis, the process by which starches are converted to sugars, works faster in fruits with higher moisture content, starches are converted to sugars faster in bananas than in bananas. Many cooking bananas have moisture contents that are found in bananas and dessert bananas. These varieties can be cooked when they are not fully ripe, but they are also ripe enough to be eaten raw. starches are converted to sugars faster in bananas than in bananas. Many cooking bananas have moisture contents that are found in bananas and dessert bananas. These varieties can be cooked when they are not fully ripe, but they are also ripe enough to be eaten raw. starches are converted to sugars faster in bananas than in bananas. Many cooking bananas have moisture contents that are found in bananas and dessert bananas. These varieties can be cooked when they are not fully ripe, but they are also ripe enough to be eaten raw.

CLASSIFICATION OF BANANA AND BANANA SPECIES

FAMILY: Musaceae
Gender: Muse
SECTION: EUMUSE

SPECIES	GROUP	SUBGROUP	CLONES	OTHER NAMES	
	Diploide AA	Sucrier	Baby banana	Lady's finger/Bocadillo/Moquicho	1
	Diploide AAA	Gross Michel/Seda	Gross Michel	Orito/Silk	4
A	Triploide AAA	Coursediah	Gran Naine	Big Dwarf/Little Girl	3
			Dwarf Cavendish	Cavendish (Little Dwarf/Dwarf)	2
(Fresh Consumption-			Valery	Robust	
Ddildildj		Cavenuisn	Lacatan	Philippine/Montecristo	1
			Williams	Giant Cavendish	3
			Red and Red and Green	Purple	1
	Triploide AAB		French Plantain	Dominican	
			Horn Plantain	Barraganete/Knave	1
		Dlantain	Dominico Harton		
		Fidillalli	Maqueño		
Balbisian Muse (Cooked			Manzano/Silk		4
Banana Consumption)			Limeño		
	Triplaida ADC	Plantain	Cuatrofilo		
	пропае Авс	Pidritdiri	Pelipita		
			FHIA4		
	проце АААВ		FHIA21		

Elaboration: DGPA-DEEIA/MINAGRI

2 ICrops that are only consumed in their arkets of origin 2 It was cultivated in subtropical regions, it is abandoned due to problems of floral obstruction, by "Williams" and "Big Dwarf" crops.

3 Crops with the kargest commercial transactions worldwide

4 Food crops for dessert that are not of the Cavendish Subgroup

Characteristics and percentage composition of the fruit: The fruit is a fake berryepigina 7 to 30 cm long and up to 5 in diameter, which forms a compact raceme. It is covered by a green leathery pericarp in the immature specimen and intense yellow, red or green and white banded when ripe. It is linear or falcada in shape, between cylindrical and markedly angular depending on the variety. The basal tip tapers steeply to a pedicel 1–2 cm. The pulp is white to yellow, rich in starch and sweet; in bananas it can be somewhat astringent or rubbery due to its content inlatex, farinousand dry. Very rarely do diploid or tetraploid varieties produceseeds, black, globose or irregular, with a rough surface, up to 16×3 mm in size, embedded in the pulp. Triploids, like 'Cavendish', never produce seed.

The fruits of the banana develop from the heart of the banana, in a large hanging cluster, made up of several "hands" or levels, with up to 20 fruits per hand. The bunch comprises 3 to 20 levels and can weigh from 30 to 50 kg. The "fingers" are the individual fruits, which average 125 grams, of which approximately 75% is water and 25% is dry matter.

It has a protective outer skin, with numerous long and thin threads that are theyou make vascularof thephloem, and that extend between the skin and the inner part. The inner part of the common yellow dessert variety can be divided longitudinally into three sections that correspond to the inner portions of the threecarpelsby manually deforming the unopened fruit.

Component	%
Pulp	60
Shell	40

World production areas:In the world they are geographically located between Ecuador and 20 ° north and south latitude. The climatic characteristics of these areas are mainly tropical, with slight temperature fluctuations between day and night, and between summer and winter.

Almost all the main producing countries are in this area, among which are Asian countries such as India, the Philippines, Indonesia, Thailand, Vietnam, Bangladesh, Malaysia. Central Americans such as Costa Rica, Mexico, Panama, Guatemala, Honduras, and the Dominican Republic.

From South America, such as Brazil, Ecuador, Colombia, Peru, Venezuela, Bolivia. African countries like Burundi, Cameroon, Uganda, Kenya, Tanzania. From Oceania like Papua New Guinea, Australia and countries under European rule like the Canary Islands, French Guyana, etc.

Bananas are primarily a crop of the lowlands of the humid tropics, which are areas characterized by being located at less than 10 ° latitude, less than 100 m altitude, a minimum average temperature of not less than 19 ° C and a monthly rainfall greater than 100 mm. In the humid tropics, the average temperature is generally within the growth optimum throughout the year (22 ° C-31 ° C), there is no evaporation stress on the plant, there is no frost and irrigation is not necessary to improve production.



Production areas in Peru:The distribution of banana production is centered in the tropical areas of the country, which correspond to regions of the jungle such as San Martín, Loreto, Ucayali, Madre de Dios; part of the regions of Junín, Amazonas, Huánuco, Pasco, Cajamarca, etc. and even the Tumbes region, for being a distinctly tropical zone. The jungle produces around 60% on average of banana production, while approximately the remaining 40% corresponds to banana production. Thus, of the total plantain and banana production, the jungle participates with approximately 85%.

On the Peruvian coast, basically bananas are produced, especially on the north coast of Peru, where one of the most important producing regions is located, such as Piura, the main export pole of organic bananas from Peru, a little more distance is followed by regions such as La Libertad, Lambayeque, Lima, Ancash, among others.

Until March 2020 there were 160,000 hectares of plantain and banana production in Peru, of which 70% are in the Amazon area. Peru has about 10,500 hectares of organic bananas (without the use of agrochemicals), grown for export purposes.



BANANA PRODUCTION AREAS IN PERU

Source: MINAG-OEEE

Nutritional value: Its potassium content provides part of the intake needed to lower the risk of high blood pressure, while vitamin B6 helps the body produce hemoglobin and keep blood

glucose in normal ranges. There are athletes who consume it after practicing sports, since thanks to its potassium content it helps to recover electrolytes.

Nutritional Value per 100 g						
Energy 89 kcal/371 kJ						
Carbohydrates	22.80 g					
-Starch	5.38 g					
-Sugars	12.23 g					
-Lactose	0 g					
-Dietary Fiber	2.6 g					
Fats	0.33 g					
Protein	1.09 g					
Water	74.91 g					
Retinol (vitamin A)	3 µg (0%)					
Thiamine (vitamin B1)	0.031 mg (2%)					
Riboflavin (vitamin B2)	0.073 mg (5%)					
Niacin (Vitamin B3)	0.665 mg (4%)					
Panthotenic Acid (vitamin B5)	0.334 mg (7%)					
Vitamin B6	0.367 mg (28%)					
Folic Acid (vitamin B9)	20 µg (5%)					
Vitamin B12	0 µg (0%)					
Vitamina C	8.7 mg (15%)					
Vitamin D	0 µg 0					
Vitamin E	0.1 mg (1%)					
Vitamin K	0.5 µg 0					
Calcium	0 mg (0%)					
Copper	0.078 mg (0%)					
Iron	0.26 mg (2%)					
Magnesium	27 mg (7%)					
Manganese	0.27 mg (14%)					
Phosphorus	22 mg (3%)					
Fluor	2.2 μg (0%)					
Potassium	358 mg (8%)					
Selenium	1 µg (2%)					
Sodium	1 mg (0%)					
Zinc	0.15 mg (2%)					

Properties:

- ✓ Helps promote good blood circulation.
- ✓ It acts as a protector against stomach ulcers and intestinal mucosa.
- ✓ It favors the proper functioning of the nervous system and prevents the occurrence of muscle cramps.
- ✓ Due to its folic acid content, it is essential during pregnancy.
- ✓ Improves mood and mild depressions.
- ✓ It favors the good functioning of the memory.
- ✓ It fights anemia, and this is due to its iron content.
- ✓ Improves muscle relaxation and recovery after physical activity.
- ✓ Thanks to its zinc content, it prevents hair loss and promotes good skin health.

Harvest time: The production of bananas and plantains in Peru is permanent throughout the year, in general with certain falls between the months of May to August, production peaks are observed between December and January and a moderate production in the other months of the year.

However, if we analyze the harvest season based on the regions where they are grown, we will be able to verify that the seasonality of production varies in the jungle with respect to production on the Peruvian coast. In the Peruvian jungle, the period of greatest banana and banana harvest is observed in the rainy seasons, which occurs between the months of October to March of each year. But the months of highest production, in general, are observed between the months of October and January of the following year. The months of moderate production occur between August and September, and between February and March of each year. While between the months of April to July the production is lower.



Source:MINAGRI

Regarding the seasonality of banana production on the coast, it takes place throughout the year, however, the months of greatest production are generally from February to May of each year, while the months of lower production are recorded between the months of August and November, in the other months of the year a moderate production is obtained.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Months of moderate production										
		Months of high production									
		Mont	hs ot I	ow pro	oductio	on					

Source:MINAGRI

Exportable offer: According to Sunat figures, the year-on-year growth in exports reported in the first quarter of 2021 was due to an increase in the exportable supply It should be noted that these changes were mainly due to non-traditional shipments. Thus, although there is evidence of a general recovery of exports at the national level, the reality according to departments shows that, in some, the consequences of the paralysis of economic activities and the deterioration of competitive conditions would continue.

EXPORTED VOLUME OF BANANA (Kg)

MES	2019	2020	2021	Var. % 2020/2019	Var. % 2021/2020
Ene	20,702,200	20,469,997	20,962,787	-1.1%	2.4%
Feb	17,468,052	19,525,607	17,634,073	11.8%	-9.7%
Mar	24,256,608	19,265,113	18,063,470	-20.6%	-6.2%
Abr	21,389,029	19,192,617	19,358,512	-10.3%	0.9%
Мау	18,122,969	20,257,908	19,106,919	11.8%	-5.7%
Jun	19,955,419	15,865,225	17,175,304	-20.5%	8.3%
Jul	17,039,745	15,350,280	-	-9.9%	-
Ago	14,581,355	16,888,463	-	15.8%	-
Sep	17,319,302	15,529,819	-	-10.3%	-
Oct	16,403,460	16,154,980	-	-1.5%	-
Nov	15,093,784	15,269,939	-	1.2%	-
Dic	19,969,956	17,164,001	-	-14.1%	-
70741	000 704 004	040 077 054		_	
TUTAL	222,301,881	210,933,951	-		
Var. % Anual	-	-5.1%	-		
ENE-JUN	121,894,279	114,576,468	112,301,065		
Var. % Ene-Jun	-	-6.0%	-2.0%		
JUL-DIC	100,407,602	96,357,483	-		

Fuente: SUNAT

Elaboración: Unidad de Inteligencia Comercial-SSE Fecha de consulta: 01/09/2021

Presentations and uses: In Peru, banana pulp, flour, dehydrated banana and other presentations are also marketed for export purposes.