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Where do cocoa beans come from

Where is cocoa grown all over the world? Danny2020-05-12T14:50:52+07:00 Fatty seed Theobroma cacao, which is the basis of chocolate For further use cacao, see Cacao (disambiguation). Pods at different stages of ripening Cocoa beans or simply cocoa (/) which is also called cocoa beans or cocoa (/kəˈkɑːɡ/).[1] is a dried and fully fermented theobroma cacao seed, from which cocoa solids (a mixture of unsuded substances) and cocoa butter (fat) cocoa beans can be extracted are the basis of chocolate, and Mesoamerican foods, including tejate, a homemade Mexican drink that also includes corn. Etymology Aztec statue with cocoa pod The word cocoa comes from the Spanish word cocoa, which is derived from the Nahuatl word cacahuatl. [2] [3] Nahuath's word, in turn, ultimately comes from the reconstructed therefore Mije-Sokean word kakawa. [4] The term cocoa also means a drink commonly called hot cocoa or hot chocolate[5] cocoa powder, a dry powder made by grinding cocoa seeds and removing cocoa butter from cocoa solids, which are a dark and bitter mixture of cocoa powder and cocoa butter - a primitive form of chocolate. [6] [7] History See also: The History of Chocolate Cocoa Tree is native to the Amazon Basin. It was domesticated by Olmecs (Mexico). More than 4,000 years ago, it was consumed by pre-Hispanic cultures along the Yucatan, and already in The Olman civilization in spiritual ceremonies. It also grows in the foot footer of the Andes in the Amazon and orinoco basins of South America, in Colombia and Venezuela. Wild cocoa is still growing there. Its scope may have been greater in the past; evidence of its wild area can be obscured by growing a tree in these areas long before the Spaniards arrived. As of November 2018, evidence suggests that cocoa was first domesticated in equatorial South America before being domesticated in Central America about 1,500 years later. [8] Artifacts found in Santa-Ana-La Florida, Ecuador, suggest that the Mayo-Chinchipe people grew cocoa as early as 5,300 years ago. [8] Chemical analysis of residues obtained from pottery excavated at an archaeological site in Puerto Escondido, Honduras, suggests that cocoa products were first consumed there sometime between 1500 and 1400 BC. Evidence also suggests that long before the taste of cocoa seeds (or beans) became popular, the sweet pulp of chocolate fruit, which is used in the production of a fermented (5.34% alcohol) drink, first drew attention to the plant in America. [9] Cocoa beans were a common currency throughout Mesoameria before the Spanish conquest. [10] Cocoa trees grow in a limited geographical area, about 20 ° to the north and south of the equator. Almost 70% of the world's crop is now grown in West Africa. The cocoa plant was first the name of the Swedish naturalist Carl Linnaeus in his original classification of the plant kingdom, where he called it Theobroma (food of the gods) cocoa. Cocoa was an important commodity in pre-Columbian Central America. A Spanish soldier who was part of the conquest of Mexico Hernán Cortés says that when Moctezuma II, emperor of the Aztecs, dined, he took no drink other than chocolate, served in the Gold Cup. Seasoned with vanilla or other spices, his chocolate was whipped into a mousse that dissolved in his mouth. No less than 60 portions each day reportedly can be consumed by Moctezuma II, and 2000 more by the nobles of his court. [11] Chocolate was introduced to Europe by the Spaniards and became a popular drink in the mid-17th century. [12] The Spaniards also introduced a cocoa tree to the West Indies and the Philippines. [13] It was also introduced to the rest of Asia, South Asia and West Africa by Europeans. In the Gold Coast, modern Ghana, cocoa was introduced by ghanaians, Tetteh Quarshie. Varieties Three main varieties of cocoa: Criollo, Trinitario and Forastero The three main varieties of cocoa plants are Forastero, Criollo and Trinitario. The first is the most widely used, involving 80-90% of the world's cocoa production. Cocoa beans of the Criollo variety are rarer and considered a treat. [14] [15] Criollo plantations have lower yields than forastero and also tend to be less resistant to several diseases that attack the cocoa plant and therefore are still produced by very few countries. One of the largest producers of Criollo beans is Venezuela (Chua and Porcelana). Trinitario (from Trinidad) is a hybrid between the varieties Criollo and Forastero. It is considered to be of much higher quality than Forastero, has higher yields, and is more resistant to disease than Criollo. [15] Growing cocoa beans in a freshly chopped cocoa pod Cocoa pod (fruit) has a coarse, a leathery crust about 2 to 3 cm (0.79 to 1.18 inches) thick (it varies according to the origin and variety of the pod) filled with sweet, mucilaginous pulp (called baba de cacao in South America) with a lemonade-like flavor surrounding 30 to 50 large seeds that are relatively soft and light lavender in a dark brown purple color. During the harvest, the pods are opened, the seeds are retained, and the empty pods are discarded and the pulp is put into the juice. Seeds are placed where they can ferment. Due to the accumulation of heat in the fermentation process, cocoa beans lose most of the purple hue and become mostly brown in color, with reddish skin containing dried remnants of fruit pulp. This skin is released easily winnowing after roasting. White seeds are found in some rare varieties, usually mixed with purple, and are considered higher values. [16] [17] Cocoa harvest in Cameroon Cocoa trees grow in hot, rainy tropical areas within 20° latitude Equator. The cocoa harvest is not limited to one period per year and the harvest usually occurs for several months. In fact, cocoa can be glassed at any time of the year in many countries. [18] Pesticides are often applied to trees to combat capsid bugs and fungicides to fight black pod disease. [19] Immature cocoa pods have different colors, but most often they are green, red or purple, and as they ripen, their color tends to be yellow or orange, especially in folds. [18] [20] Unlike most fertile trees, cocoa pod grows directly from a trunk or large tree branch, rather than from the end of a branch, similar to jackfruit. This facilitates manual harvesting, since most pods will not be in higher branches. Pods on the tree do not ripen together; harvesting must be carried out regularly in a year. [18] The harvest occurs three to four times a week during the harvest. [18] Ripe and almost ripe pods, as assessed by their colour, are harvested from the trunk and branches of a cocoa tree with a curved knife at the long pole. When cutting the stem of the pod, care should be taken not to damage the connection of the stem with the tree, as future flowers and pods will appear. [18] [21] One person can harvest an estimated 650 pods per day. [19] [22] Harvest processing of cocoa beans. Cocoa beans drying in the sun Harvested pods are opened, usually with a machete, to expose the beans. [18] [19] Pulp and cocoa seeds are removed and the bark is discarded. Pulp and seeds then accumulate in piles, placed in baskets or laid on grates for several days. During this time, seeds and pulp are subjected to sweating, where dense pulp liquefies when fermented. Fermented pulp drains and leaves cocoa seeds to be collected. Sweating is important[23] for the quality of beans that originally have a strong, bitter taste. If sweating is interrupted, the resulting cocoa can be destroyed; if it does not finish, cocoa seed retains a taste similar to raw potatoes and becomes prone to mold. Some cocoa-producing countries distify alcoholic spirits using liquefied pulp. [24] A typical pod contains 30 to 40 beans, and about 400 dried beans are needed to make one pound (454 grams) of chocolate. Cocoa pods weigh an average of 400 g (14 oz) and each gives 35 to 40 g (1.2 to 1.4 oz) of dried beans; this yield is 9-10% of the total weight in the pod. [19] One person can separate beans from about 2,000 pods per day. [19] [22] Close-up drying of cocoa beans Wet beans are then transported to the plant so that they can be fermented and dried. [19] [22] The farmer removes the beans from the pods, wraps them in boxes or piles them in piles, and then covers them with mats or banana leaves for three to seven days. [25] Finally, the beans are trampled and mixed (often Human feet) and sometimes, during this process, red clay mixed with water is sprinkled with beans to get a finer color, shine and protection against molds when transported to factories in other countries. Drying in the sun is preferable to drying with artificial means, since there are no foreign flavors, such as smoke or oil, which could otherwise taint the taste. Beans should be dry for transportation (usually by sea). Traditionally exported in jute bags over the past decade, beans are increasingly delivered in mega-bulk packages of several thousand tons at a time on ships, or standardized to 62.5 kg per bag and 200 (12.5 mt) or 240 (15mt) bags per 20-ft container. Large-scale transport significantly reduces handling costs; however, shipments in bags, either in the cargo hold or in containers, are still common. Throughout Mesoamerica, where they are native, cocoa beans are used for various foods. Harvested and fermented beans can be ground to order in tiendas de chocolate or chocolate mills. In these mills, cocoa can be mixed with various ingredients such as cinnamon, chillies, almonds, vanilla and other spices to create drinking chocolate. [26] Ground cocoa is also an important ingredient in tejate. Child slavery Main articles: Children in cocoa production and Harkin-Engel protocol The first claim that child slavery is used in the production of cocoa appeared in 1998. In late 2000, a BBC documentary reported on the use of enslaved children in cocoa production in West Africa. [27] [28] [29] Other media followed by reports of widespread child slavery and child trafficking in cocoa production. [30] [31] Child labour in some West African countries increased between 2008 and 2009, with an estimated 819 921 children working on cocoa farms in Côte d'Ivoire only; increased to 1 303 009 in 2013-2014. During the same period in Ghana, the estimated number of children working on cocoa farms was 957 398 children. [32] An attempt to reform the Cocoa Industry has been accused of profiting from child slavery and human trafficking. [33] The Harkin-Engel Protocol is an effort to put an end to these practices. [34] It was signed and witnessed by the heads of eight large chocolate companies, U.S. Senators Tom Harkin and Herb Kohl, U.S. Representative Eliot Engel, Ambassador of Côte d'Ivoire, Director of the International Program for the Elimination of Child Labor and others. [34] However, this has been criticised by some groups, including the International Labour Rights Forum, as an industry initiative that falls short. [36] [37] Since 2017, some 2.1 million children in Ghana and Côte d'Ivoire have been involved in cocoa harvesting, heavy lifting, forest removal and exposure to pesticides. [38] According to Sony Ebai, former Secretary General of the Alliance of Cocoa Producing Countries: I think child labour be just the responsibility of industry to address it. I think it's the proverbial all-hands-on-deck: government, civil society, the private sector. And that's where you really need guidance. [39] In 2018, Nestlé's three-year pilot programme, with 26 000 farmers mainly located in Côte d'Ivoire, saw a 51% drop in the number of children doing dangerous work in cocoa cultivation. [40] The US Department of Labor has established the Cocoa Child Labour Coordination Group as a public-private partnership with the governments of Ghana and Côte d'Ivoire to address child labour practices in the cocoa industry. [41] Cocoa bean production – 2017 Country (tons) Côte d'Ivoire 2,034,000 Ghana 883,652 Indonesia 659,776 Nigeria 328,263 Cameroon 295,1028 Brazil 295,1028 Brazil 295,1028 235 809 Ecuador 205 955 World 5 201 108 Source: FAOSTAT United Nations[42] In 2017, world cocoa bean production was 5.2 million tonnes, led by Côte d'Ivoire with 38% of the total. Other major producers were Ghana (17%) and Indonesia (13%). Since 2019, more than 75% of cocoa produced worldwide comes from West Africa, namely Côte d'Ivoire, Ghana, Cameroon and Nigeria. Côte d'Ivoire alone produces more than 40% of the cocoa beans grown worldwide. [43] Production in Ghana could be underestimated because production can get a better price for cocoa beans by smuggling them to Côte d'Ivoire, where the minimum price per kilogram is \$1.55, as set by the Conseil du Café-Cacao. [44] In West Africa, only about 20% of global cocoa bean milling takes place; most of it is shipped to Europe, Asia and North America for grinding. [43] Cocoa trading in cocoa from Ghana has traditionally been supplied and stored

in bags in which beans are susceptible to pest attacks. [45] Methyl bromide fumigation was to be completed worldwide by 2015. Other cocoa protection techniques for transport and storage include the use of pyrenoids as well as hermetic storage in sealed bags or containers with reduced oxygen concentration. [46] Safe long-term storage facilitates trading of cocoa products on commodity exchanges. Cocoa beans, cocoa butter and cocoa powder are traded on two global exchanges: ICE Futures USA and NYSE Life Futures and Options. The London market is based on West African cocoa and New York on cocoa mainly from Southeast Asia. Cocoa is the smallest soft commodities market in the world. The state of California requires a food label for cocoa powder to carry warnings about potential cadmium exposure, based on 1986 California Proposition 65. The future price of cocoa butter and cocoa powder shall be determined by multiplying the price of beans by proportion. The combined ratio of butter and powder usually hovers around 3.5. If the combined ratio falls below 3,2 or so, production ceases to be economically viable and some factories cease to produce butter and trade and trade cocoa liqueur. The global surplus and cocoa deficit are changing year on year, while overall production and milling are constantly increasing. [43] These fluctuations affect the price of cocoa and each participant in the global cocoa supply chain. [43] Sustainability Several international and national initiatives work together to promote sustainable cocoa production. These include the Swiss Platform for Sustainable Cocoa (SWISSCO), the German Initiative for Sustainable Cocoa (GISCO) and Beyond Chocolate in Belgium. In 2020, a memorandum was signed between the three initiatives to measure and address issues such as child labour, living income, deforestation and supply chain transparency. [47] Similar partnerships are being developed between cocoa producing countries and their consumption, such as cooperation between the International Cocoa Organisation (ICCO) and the Ghana Cocoa Authority, which aims to increase the share of sustainable cocoa imported from Ghana to Switzerland to 80 % by 2025. [48] The ICCO is engaged in projects around the world to promote sustainable cocoa production and provide up-to-date information on the world cocoa market. [49] Voluntary sustainability standards There are a number of voluntary certifications, including fair trade and Utz (now part of the Rainforest Alliance) for cocoa, which aim to distinguish between conventional cocoa production and production that is more sustainable in terms of social, economic and environmental issues. However, there are significant differences between the different certifications in their objectives and approaches and a lack of data to show and compare results at farm level. While certifications can lead to an increase in farm incomes, the premium price paid to consumers for certified cocoa is not always reflected in farmers' incomes. In 2012, the ICCO found that the size of the farm depends significantly in determining the benefits of certifications and that farms with less than 1 ha are less likely to benefit from these programmes, while countries with slightly larger farms, as well as access to member cooperatives and the ability to improve productivity are most likely to benefit from certification. [50] Certification often requires high frontal costs, which are an obstacle for small farmers, and especially for women in agriculture. The main benefits of certification include improving conservation practices and reducing the use of agrochemicals, promoting entrepreneurship through cooperatives and resource sharing, and higher prices for cocoa beans, which can improve farmers' standard of living. [51] In Belize, Bolivia, Cameroon, Congo, Costa Rica, the Dominican Republic,[53] Ecuador, Ghana, Haiti, India, Côte d'Ivoire, Nicaragua, Panama, Paraguay, Peru, Sierra Leone and São Tomé and the Republic of Príma, cocoa producer groups are established. Beyond Chocolate partnership established in 2018 stakeholders in the global cocoa sector in order to reduce deforestation and ensure a living income for cocoa growers. Many international companies are currently participating in this agreement and the following voluntary certification programmes are also partners in beyond chocolate: Rainforest Alliance, Fairtrade, ISEAL, BioForum Vlaanderen. [54] Many large chocolate companies around the world have begun to prioritise the purchase of fair trade cocoa by investing in fair trade in cocoa production, improving cocoa supply chains in fair trade and setting purchasing targets to increase the share of fair trade chocolate available on the world market. [55] [56] [57] [58] [59] The Rainforest Alliance sets out the following objectives as part of its certification programme: Forest protection and sustainable land management Improve rural livelihoods in order to reduce poverty Address human rights issues, such as child labour, gender inequality and domestic land rights The UTZ Certified programme (now part of the Rainforest Alliance) included the fight against child labour and the exploitation of cocoa workers, which requires a code of conduct in relation to social and environmental factors and improved farming methods to increase farmers' profits and salaries distributors. [60] Environmental impact Main article: Environmental impact of cocoa production Relative poverty of many cocoa growers means that environmental consequences such as deforestation are of little importance. For decades, cocoa farmers have interfered with virgin forests, mostly after felling trees by logging companies. This trend has decreased as many governments and communities begin to protect their remaining wooded zones. [61] However, deforestation due to cocoa production is still a major problem in some parts of West Africa. In Côte d'Ivoire and Ghana, barriers to land ownership have led to migrant workers and farmers without funding to purchase land in order to illegally expand their cocoa cultivation in protected forests. Many cocoa growers in the region continue to favour expanding cocoa production, often leading to deforestation. [62] Sustainable agricultural practices, such as the use of cover crops to prepare pre-planting soils and intermediate cocoa seedlings with accompanying plants, can support cocoa production and benefit the agricultural ecosystem. Before planting cocoa, legume crops can improve soil nutrients and structure, which are important in areas where cocoa is produced due to high heat and rainfall, which can reduce soil quality. Plantains are often intercropped with cocoa to provide shade for young seedlings and improve resistance to soil drought. If the soil lacks essential nutrients, compost or animal manure can improve soil fertility and help with water retention. [63] In general, the use of chemical and pesticides of cocoa growers is limited. When cocoa bean prices are high, farmers can invest in their crops, resulting in higher yields, resulting in lower market prices and a renewed period of lower investment. While governments and NGOs have made efforts to help cocoa growers in Ghana and Côte d'Ivoire improve crop yields sustainably, many of the educational and financial resources provided are more readily available to farmers than to farmers. Access to credit is important for cocoa growers because it allows them to implement sustainable practices such as agroforestry and to provide a financial buffer in the event of disasters such as pests or weather, reducing crop yields. [62] Cocoa production is likely to be affected in different ways by the expected effects of global warming. Particular concerns have been raised about its future as a cash crop in West Africa, the current hub of global cocoa production. If temperatures continue to rise, West Africa could simply become unfit to grow beans. [64] [65] Cocoa beans also have the potential for use as bedding in agricultural bedding for cows. The use of cocoa bean husks in litter material for cows can contribute to ud usd health (less bacterial growth) and ammonia levels (lower levels of ammonia on litter). [66] Agroforestry cocoa beans can be grown in the shade, as is the case in agroforestry. Agroforestry can reduce pressure on existing protected forests on resources such as firewood and preserve biodiversity. [67] The integration of tree shade with cocoa plants reduces the risk of soil erosion and evaporation and protects young cocoa plants from extreme heat. [63] Agroforests act as buffers for formally protected forests and refuges on biodiversity islands in an open, human-dominated landscape. Research by their coffee shade counterparts has shown that a larger canopy cover on land is significantly associated with a greater diversity of mammalian species. [68] Diversity in tree species is relatively comparable between cocoa areas grown in the shade and primary forests. [69] Farmers can grow different fruit shades to supplement their income to help cope with volatile cocoa prices. [70] Although cocoa has been modified to grow under the dense canopy of the rainforest, agroforestry does not significantly increase cocoa productivity. [71] However, while growing cocoa in full sun without incorporating shade plants may temporarily increase cocoa yield, it will eventually reduce soil quality due to nutrient loss, desertification and erosion, leading to unsustainable yields and dependence on inorganic fertilizers. Agroforestry practices stabilize and improve soil quality, which can maintain cocoa production in the long term. [62] Consumption People around the world have cocoa in many different forms and consume more than 3 million tons of cocoa beans per year. Once cocoa were harvested, fermented, dried and transported, were processed in several components. Processor grinding serves as the main metric for market analysis. Processing is the last stage in which the consumption of cocoa beans can be fairly compared with the supply. After this step, all different components are sold across industries to many manufacturers of different product types. The share of the world processing market has remained stable, even as milling increases to meet demand. One of the largest volume processing countries is the Netherlands, which handles around 13% of global milling. Europe and Russia as a whole process about 38% of the processing market. Average year-on-year demand growth has been just over 3% since 2008. While Europe and North America are relatively stable markets, the increase in household incomes in developing countries is the main reason for stable demand growth. As demand is expected to continue to grow, supply growth may slow due to changing weather conditions in the largest areas of cocoa production. [72] Chocolate production Main article: Chocolate For the production of 1 kg of chocolate, about 300 to 600 beans are processed depending on the desired cocoa content. In the factory, the beans are roasted. Next they are cracked and then deshelled winnower. The resulting pieces of beans are called spikes. Sometimes they are sold in small packages in specialized stores and markets, which are used in cooking, snacking and chocolate dishes. Since the spikes are directly from the cocoa tree, they contain a high amount of theobromine. Most spikes are ground, using a variety of methods, into a thick, creamy paste, known as chocolate liqueur or cocoa paste. This liqueur is then further processed into chocolate by mixing in (more) cocoa butter and sugar (and sometimes vanilla and lecithin as an emulsifier), and then refined, conched and tempered. Alternatively, it can be divided into cocoa powder and cocoa butter using a hydraulic press or broma process. This process produces around 50% cocoa butter and 50% cocoa powder. Cocoa powder may have a fat content of about 12%,[73] but this varies significantly. [74] Cocoa butter is used in the manufacture of chocolate bars, other confectionery, soaps and cosmetics. Treatment with alkaline substances produces Dutch cocoa powder, which is less acidic, darker and softer than what is generally available in most of the world. Regular (non-alkaline) cocoa is acidic, so when cocoa is treated with an alkaline component, generally potassium carbonate, the pH increases. [75] This process can be carried out at different stages of production, including spike treatment, alcohol treatment or press treatment. Another process that helps develop the taste is roasting, which can be done on whole beans before shelling or on the tip after shelling. Time and temperature Influence the result: a low roast produces more acid, aromatic taste, while a high roast gives a more intense, bitter taste lacking complex taste notes. [76] Phytochemicals and research Roasted cocoa beans, paper skin rubbed loosely Pressing cake cocoa paste Cocoa contains various phytochemicals such as flavanols (including epicatechin), prokyanidins and other flavanoids, which are the subject of preliminary research into their possible cardiovascular effects. [77] [78] [79] The highest levels of cocoa flavanols are found in raw cocoa and, to a lesser extent, in dark chocolate, as flavanoids are distinguished during cooking. [80] Cocoa also contains the stimulating compounds theobromine and caffeine. Beans contain between 0.1% and 0.7% caffeine, while dry coffee beans are about 1.2% caffeine. [81] See also Carob Cash crop catechin and epicatechin, flavonoids present in cocoa Coenraad Johannes van Houten for dutch process Coffee bean Domingo Ghirardelli Ghana Kakao Council International Cocoa Farmers Organization Nacional (cocoa beans) Links ^ Cacao. Free dictionary. February 17, 2015. ↑ cocoa (n.). Online etymological dictionary. ^ Bingham, Ann; Roberts, Jeremy (2010). Southern and Meso-American Mythology A through Z. Infobase Publishing. p. 19. ISBN 978-1-4381-2958-7. ↑ Kaufman, Terrence; Justeson, John (2006). History of the word for 'Cacao' and related conditions in ancient Meso-America. In Cameron L. McNeil (ed.). Chocolate in Mesoamerica: The Cultural History of Cacao. University press from Florida. p. 121. ISBN 978-0-8130-3382-2. ↑ Chocolate Facts. It was archived from the original on 11 June 2005. 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