



ALL ABOUT
COCOA & CHOCOLATE

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WELCOME TO THE WORLD OF COCOA AND CHOCOLATE

Did you know that the history of cocoa and chocolate goes back almost 4000 years? Or that cocoa played an important role as a currency in the Mayan and Aztec cultures?

Cocoa and chocolate are not merely the sensual foodstuffs that make people happy... they have a rich history, full of interesting facts, vivid legends and exciting stories about kings and nobles, explorers and scientists, religion and gods.

For example, cocoa and chocolate were first consumed as medicines. And it was only later that they became popular as foodstuffs through their seductive taste.

This “food of the gods” first made us curious about more than 150 years ago, as we took our first steps into chocolate production. We were keen to learn all about the precious cocoa bean, its history, its power... In fact we also learned how to unveil the aromas that lie hidden in the core of this bean. We became experts in making the finest chocolate. But still we want to learn more about the most talked about foodstuff in history.

This background has helped us become the world’s leading manufacturer of high-quality cocoa and chocolate products. This also made us enthusiastic about sharing our know-how with you. Enjoy this tour with us through the world of cocoa and chocolate.



Earthenware cocoa pod,
Aztec culture, Mexico, 1250-1521 AD



COCOA AND CHOCOLATE... QUITE A HISTORY!

There are few foodstuffs with such a rich and intriguing history as cocoa and chocolate. Just like coffee, we inherited the cocoa bean from the mysterious pre-Columbian cultures in Latin America. When Cortés first imported cocoa to Europe, and when he learned how to make the chocolate drink with it, it caused quite a stir: divine to some; heretical to others. Even today, cocoa and chocolate – more than any other foodstuffs – still exude an aura of mystery, luxury and pleasure. A little history may help us to understand why.

Already 4000 years ago the inhabitants of a small village in the Ulúa valley in Honduras used drinking cups and plates exclusively for the consumption of Xocoatl, the original chocolate drink. Scientists now consider this small village as the true cradle of chocolate.

Between 250 and 900 AD, cocoa became a major part of the Mayan culture and religion and also played an essential role as currency. “Cacau” originally meant “carrying over from those who walk, work or cultivate,” which should be interpreted as exchanging or paying.

After the Mayans, the Toltecs and later the Aztecs established their communities in Mexico, around 1300. The Aztecs adopted a lot of the Toltec cultural and religious practices, such as worshipping the feathered god of cocoa Quetzalcoatl.

According to the legends, Quetzalcoatl received cocoa as a gift from the gods. He and his people lived in great wealth in a paradise called Tula. But jealous intruders poisoned Quetzalcoatl who went insane and disappeared on a raft in the open sea. The Aztecs always believed that Quetzalcoatl, their king and the god of cocoa, would once again return to Mexico.



Cocoa trader, Vera Cruz culture,
Mexico, 300-900 AD



Utensils used for crushing corn or cocoa, Vera Cruz culture, 200 AD



Large pot with a picture of the god of cocoa planters “Ek Chuah,”
Mayan culture, Guatemala/Mexico, 300-600 AD

1502

Columbus discovers the New World on his fourth journey. He lands on the island of Guanaja, close to Honduras, and is offered cocoa by the locals.

1519

Hernando Cortés first sets foot ashore in Mexico. The Aztecs mistake him for the returned Quetzalcoatl and offer him cocoa. Cortés, who had hoped to find gold, soon learns that cocoa has an equal value. He sets up the first cocoa plantations and discovers a red, bitter and spicy drink prepared with cocoa: Xocoatl.

The Aztecs prepared and consumed chocolate mainly when they worshipped their gods or during tribal ceremonies. The colonials were soon convinced of the great nutritional value and the medicinal powers of cocoa, cocoa butter and the chocolate drink.



1528

Hernando Cortés imports the first cocoa beans into Spain.

1590

Spanish monks introduce a recipe for the first sweet chocolate drink. Honey, vanilla and sometimes cane sugar are added to make the chocolate drink more suited to the Spanish taste. It sets the basis for the chocolate recipes of today and will soon conquer the world.

1606

Traders, explorers and travelers introduce cocoa to Italy, France, the Netherlands, Germany and eventually Switzerland... It soon envelops royal courts, the aristocracy and nobility who love this novelty.

1659

France has its first true chocolatier. David Chaillou prepares and sells cookies and cakes made with chocolate. Chocolate remains an exclusive privilege.

1660

Chocolate remains the subject of much discussion for the church, which regards it as sinful and decadent. Noble ladies consume their chocolate drink in church to sit out the long services. Finally, the church has to allow chocolate, to please its devoted and wealthy followers.

1671

The duke of Plessis-Praslin and his chef Lassagne create the first "praline", an almond coated with caramel. However, it will be a long time before the true, chocolate-covered praline is invented.

1728

The Fry family sets up the first chocolate factory in the UK, using hydraulic machinery and equipment to process and grind the cocoa beans.

1737

The cocoa tree gets an official Latin botanical name from Linnaeus: Theobroma cacao, referring to its mythical background. It literally means: "cocoa, food of the gods."

The Spanish monopoly of cocoa soon becomes untenable. Italy, the Netherlands and Portugal start up plantations and also import cocoa from Venezuela.

1765

The U.S. get to know chocolate, thanks to John Hannon – an English state commissioner – and Dr. James Baker who introduce it there and build the first chocolate factory in Massachusetts.

Vanilla sticks >



< Hernando Cortés, 1519 AD

< Chocolate jug, cup and sugar pot from Paris, 1730-1760 AD



"Chocolate girl," A.H. Payne (painting from Jean-Etienne Liotard, 1702-1789) AD >



Chocolate mug with plate, Böttgersteinzeug 1710-1713 AD >



Hernando Cortés meets Montezuma, emperor of the Aztecs >



1778

In France, Doret builds the first machine that automatically grinds cocoa beans.

1828

The Dutchman Coenraad Van Houten invents the revolutionary cocoa press which will have a major impact on cocoa and chocolate production. His cocoa press makes it possible to separate cocoa solids from cocoa butter. The resulting defatted cocoa powder is much easier to dissolve in water or other liquids.

1839

The German baker Stollwerck starts a business that will grow into one of the major companies in Germany, producing a variety of chocolate products and brands.

1848

By adding cocoa butter and sugar to cocoa liquor, the first real “eating chocolate” is created: a historic step! Who exactly invented it, is still argued. Until now, chocolate was mainly known as pressed blocks of a grainy mass that were dissolved in water or milk and mixed to form a foamy chocolate drink.

1867

The Swiss Henri Nestlé finds a way to evaporate the liquid from milk and creates milk powder.

1875

The Swiss Daniel Peter gets the idea of adding milk powder to chocolate and creates the first milk chocolate.

1879

The Swiss Rudolphe Lindt invents the conching machine. This kneads chocolate for hours, resulting in a fine tasting, creamy and rich chocolate with no off-taste.

1890

Many European countries legally protect chocolate because it becomes the subject of a wide-scale fraud. At the same time, many governments develop a growing sense of responsibility for the safety of foodstuffs.

1900

The prices of the two main ingredients for chocolate – cocoa and sugar – drop tremendously. In the space of ten years, cocoa and chocolate become affordable for a growing number of middle-class consumers.

1910

Cocoa production shifts from Central and Latin America to Africa and Asia. The big plantations set up by traders in the 18th and 19th century are replaced by small, independent local farms.

- The real industrialization of chocolate production takes place all over Europe and the U.S. Countries like Belgium seem to be at the cutting edge of innovation, with fast production technology and new marketing techniques.

- The big names in the chocolate world are established: brands like Callebaut and Cacao Barry who produce chocolate for bakers, chocolatiers and pastry chefs. At the same time, the world’s most renowned chocolatiers start up their businesses: Neuhaus and Godiva in Belgium, La Maison du Chocolat and Fauchon in France, Lindt, Suchard and Sprüngli in Switzerland...



< Van Houten cocoa press, 1828 AD

< Van Houten poster, 1882 AD

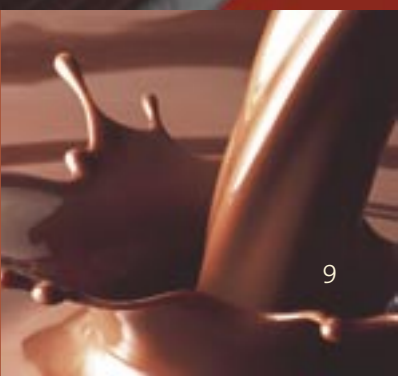
Lindt conching machine, 1879 AD >



Silver chocolate jug from Paris, 1847 AD >



5-cylinder mill, 1883 AD >



1912

Belgium: Jean Neuhaus, founder of the famous Neuhaus brand, invents a chocolate shell that he fills with cream, nut pastes, etc. In short: he invents the true Belgian chocolate: the praline.

1920

Jean Neuhaus designs appropriate packaging for his pralines: the famous rectangular box (also known as a "ballotin").

1930

The family firm of Callebaut invents a way to produce couverture (chocolate with a high cocoa butter/milk fat content, mainly for professional use) and to store and transport it in its liquid form. This makes it possible to supply the food industry with chocolate faster and cost-effectively.

1940

Thanks to new raw materials and efficient production equipment, chocolate is sold to the consumer at affordable prices. It even becomes the least expensive foodstuff per kilocalorie.

1950

The post-war period sees a really massive growth in the chocolate market. Chocolate consumption becomes part of our daily dietary habits through new product developments.

1980

The 1980's bring a new trend towards fitness and health, also focusing on dietary habits: light or diet versions of all kinds of foodstuffs make their appearance. Nevertheless, chocolate remains popular as the perfect, small-size snack.

1996

Barry Callebaut is formed by the merger of the Belgian Callebaut and the French Cacao Barry.

2000

The turn of the millennium brings new and exciting trends in chocolate consumption. The true chocolate lover discovers Barry Callebaut's single origin chocolates: chocolate produced with cocoa from one specific country or region. These chocolates are distinguished by their unique flavors, with subtle aromas of things such as herbs, flowers, fruit or nuts.

This is also the year in which some exceptional chocolate innovations from Barry Callebaut become very popular. Products such as organic chocolate and kosher chocolate are a great success, offering many people a pure chocolate sensation combining taste with true authenticity.

21st century

The future of chocolate looks promising! Chocolate remains the fine pleasure that brings enjoyment, indulgence and fun, and probably always will, to more and more people around the world. Even continents like Asia that do not have a long tradition of chocolate are enthusiastically discovering the "food of the gods". And there's more: apart from being very flavorsome the chocolate of tomorrow may also have various health-promoting or beneficial properties for everyone. Enjoy!

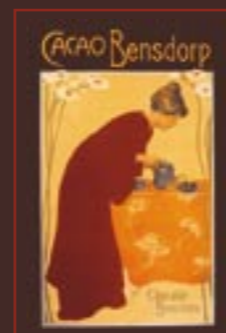


◀ Boxes Van Houten, Suchard Stollwerck



◀ Picture of the former Callebaut plant in Wieze, Belgium

Bensdorp poster ▶





WHERE IS COCOA GROWN?

Cocoa, the essential ingredient for chocolate, was brought to us by the Spanish explorers Columbus and Cortes, who learned about it from their encounters in the “New World.” Initially they were baffled by the strange, almond-shaped cocoa beans, but they quickly discovered their value. The cocoa tree, which comes originally from the tropical rain forests of Honduras, Venezuela and Mexico, was soon cultivated in plantations set up by the Spanish. Nowadays, cocoa is grown in a narrow belt around the equator in the Americas, Africa and Asia.

The cocoa tree

The cocoa tree – *Theobroma cacao* – only grows in the tropical heat of the equatorial forest. The shadow of tall-growing plants protects the young tree against the burning sun or strong wind. After five years, it is strong enough to survive and starts producing cocoa.

The cocoa tree flowers all year round, in two cycles of six months. Thousands of minuscule white (female) and pink (male) flowers adorn stem and branches. No more than forty of the thousands of flowers will eventually develop into cocoa pods.



The cocoa pod



The cocoa tree



The cocoa flower

After six months, the cocoa pods are full-grown and have changed from green to yellow, orange or red, ready to be harvested. There are two harvests per year. In African countries, such as the Ivory Coast and Ghana, the main harvest lasts from October to March and the mid-crop from May to August.

The farmers cut the outer peel of the cocoa pods open with long knives to collect the fruit pulp inside. This pulp contains 40 to 50 seeds: our precious cocoa beans.

The beans are then left to ferment, depending on the type, for five to seven days. This natural process removes any of the remaining fruit pulp around the beans. During fermentation, the beans change from gray to brown to purple and develop their aroma.

After fermentation, cocoa beans are spread out and left to dry in the sun for about six days. They lose most of their moisture content and more than half their weight. This is essential to stop the fermentation process as well as for storage.

When the beans are dry enough, the cocoa farmers bring their harvest to a collection center. A number of beans are cut open to check the quality. They are then allotted a quality code, weighed and packed in jute sacks.

Thousands of sacks of cocoa are taken from the collection center to huge warehouses. After a second quality control check, sacks await shipment to the different Barry Callebaut plants.

The beans, packed in sacks or containers, set off to the port, to be shipped to their new destination: our cocoa processing and chocolate producing sites in Europe, America and Asia.



◀ Harvesting pods



Checking the quality of the cocoa beans



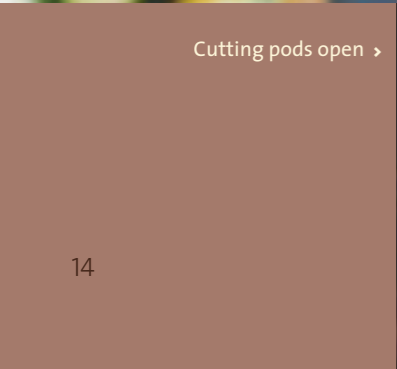
◀ Fermentation of cocoa beans



◀ Drying and turning



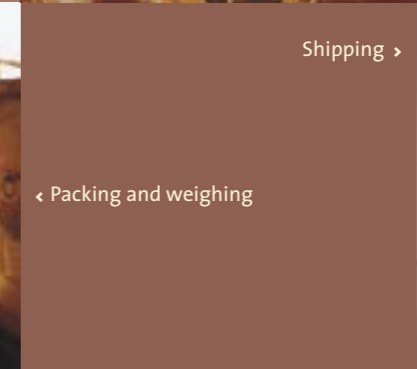
◀ Arrival at the warehouse



Cutting pods open ▶



◀ Packing and weighing



Shipping ▶



HOW IS CHOCOLATE MADE?

Transforming cocoa beans into chocolate is a complex process, in which ingredients, time and temperature play a crucial role. By varying these three parameters, we are able to produce a variety of unique recipes. Let's take a closer look.

From cocoa bean to cocoa liquor

Jute sacks, filled with cocoa beans, arrive from Africa, Latin America and Asia.

Cocoa beans from different origins are first examined for quality and then carefully mixed into a blend. This is done to obtain chocolate with a predetermined taste and aroma.

Cocoa beans are cleaned of stones, dirt and sand and dried quickly under heaters. This makes it easier to break the beans and to remove the shell around them. Only the pieces of kernel or "cocoa nibs" remain.

Cocoa nibs are then roasted, which develops their aroma.

In special grinders, nibs are ground to a very fine, liquid mass, the cocoa liquor. This is one of the main ingredients of chocolate.

Cocoa liquor can be further processed into two different components: cocoa butter and cocoa powder. However, it can also be used directly as an ingredient in chocolate.



1. Blending cocoa beans of different origins



2. Drying the beans

From cocoa liquor to chocolate

Depending on the kind of chocolate, different ingredients are used:

Dark chocolate:

Cocoa liquor + cocoa butter + sugar

Milk chocolate:

Cocoa liquor + cocoa butter + sugar + milk powder

White chocolate:

Cocoa butter + sugar + milk powder

Vanilla or vanilla essence can be added to all types to enhance the taste.

The ingredients are first dosed very precisely according to the recipe. These ingredients are mixed into a homogeneous chocolate dough.

This mixture is then refined between rollers to form a fine chocolate powder in which the particles are so small that the human tongue can no longer distinguish them. This gives the finished chocolate an extremely smooth texture and a homogeneous flavor.

The chocolate powder is put into large conches where it is kneaded for several hours until the aromas have fully developed. Conches are large tanks with a powerful stirring device inside that kneads the chocolate mixture slowly over a long time. Contact with air, heat and friction result in several different physical and chemical processes:

- The cocoa butter present in the cocoa liquor melts. This also occurs with the milk fat from the milk powder used for milk and white chocolate.
- These fats are spread through all the minuscule particles in the chocolate mixture.
- Moisture present in the mixture evaporates.
- The volatile acids disappear partially or totally, depending on the conching time, and this affects the flavor of the chocolate.
- A caramelization process also takes place, depending on the heat and the conching time. This also affects the flavor of the chocolate and is particularly important for milk and white chocolate.

The conching process demands particular knowledge, experience and constant checking.

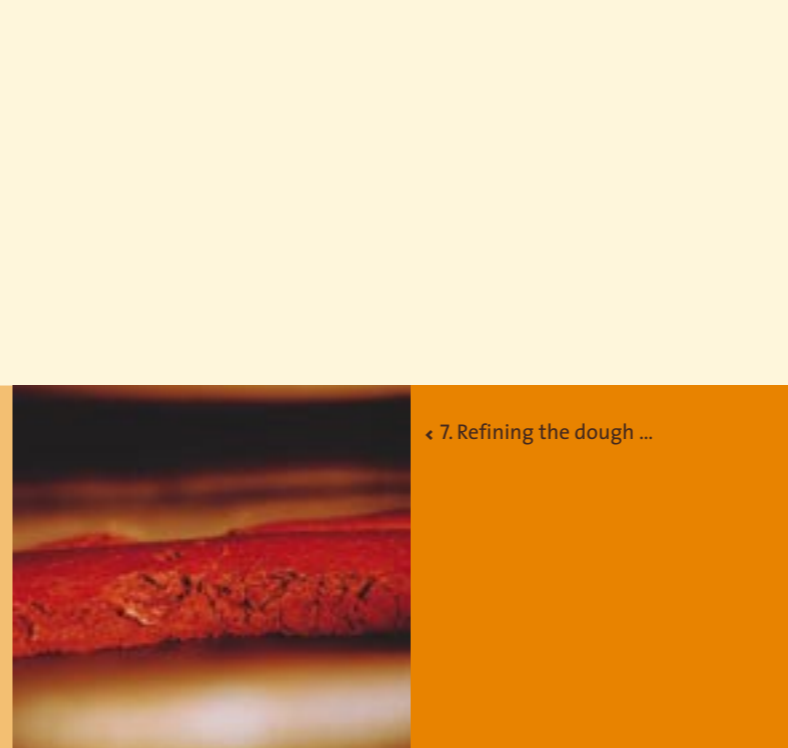
At the end of the conching process, cocoa butter and an emulsifier (soya lecithin) are added to the conch. The amounts of cocoa butter and emulsifier affect the viscosity. Besides enhancing the flavor, the added cocoa butter makes the chocolate more liquid.



3. Breaking and removing the shells



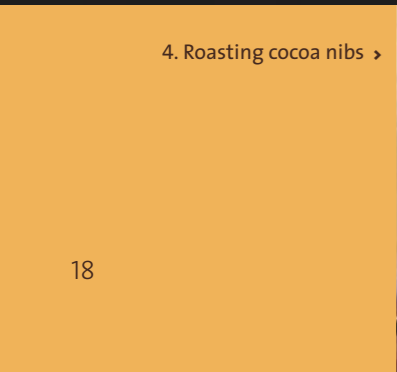
5. After grinding cocoa nibs into liquid cocoa liquor, samples are taken to measure the fineness



← 7. Refining the dough ...



The conches



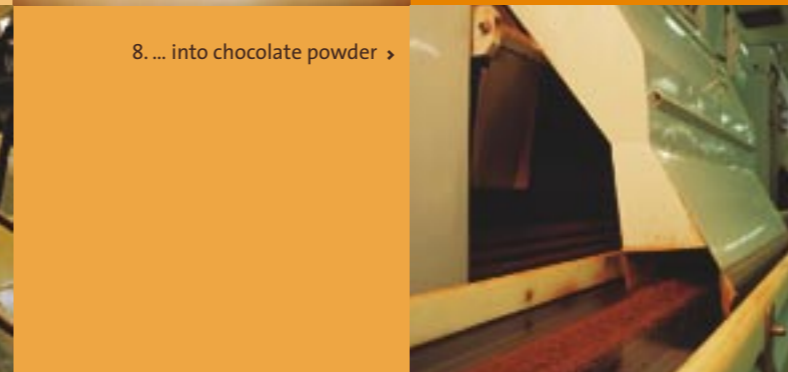
4. Roasting cocoa nibs >



6. Mixing and blending ingredients into chocolate dough >



8. ... into chocolate powder >



← 9. Kneading the chocolate powder in the conches

Liquid chocolate takes shape

The liquidity (viscosity) of the chocolate is measured and adjusted to the desired specifications. Some applications require a slightly liquid chocolate, other types of applications require very liquid chocolate. Depending on the liquidity required by the customer, extra cocoa butter is added to the chocolate. The more cocoa butter, the more liquid the chocolate. Barry Callebaut aims to reassure the final chocolate processors that they can always count on chocolate that conforms in practice to the technical requirements that they stipulate.

Part of the liquid chocolate is now stored in large heated tanks so that it can be pumped later on for transport to industrial processors. The rest is solidified in our facilities for delivery as blocks, hard drops, chunks, bars, etc.

Some of the liquid chocolate is molded into blocks, drops or other solid shapes. Liquid chocolate must first be tempered so it can eventually harden.

Tempering ensures the formation of the right type of cocoa butter crystals so that the chocolate will harden into shiny, hard, stable shapes. Only after tempering can chocolate be poured into molds or made into drops and finally cooled.

During cooling, chocolate becomes hard and shiny so that it comes out of the molds perfectly shaped and ready for packing.

Blocks, drops or other shapes can now be transported to the storage and distribution center.

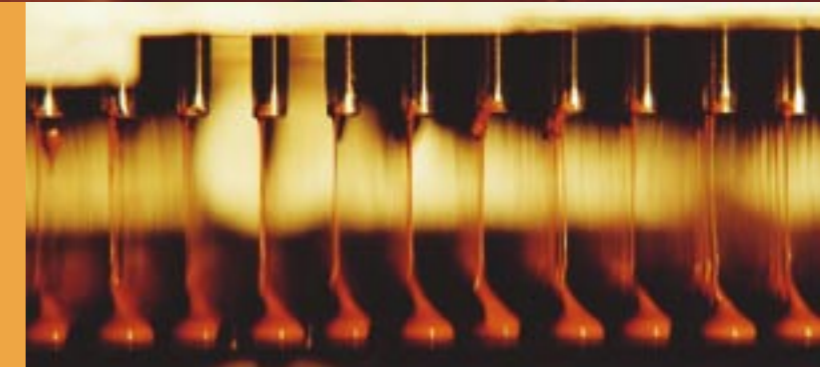


← 10. Liquifying chocolate

11. Measuring viscosity >



← 13. Pumping chocolate for transport



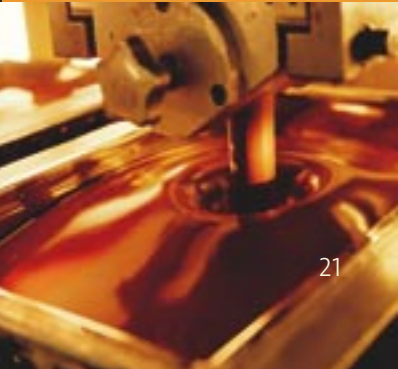
← 14. Depositing chocolate drops



← 12. Storage in heated tanks



15. Molding chocolate blocks >





BARRY CALLEBAUT, A PASSION FOR COCOA AND CHOCOLATE

Barry Callebaut is the world's N° 1 manufacturer of chocolate. More than 150 years of passion for cocoa and chocolate have made us experts in all aspects of chocolate, "from the cocoa bean to the shelf." We know where to find cocoa beans of the purest quality, for example. Our tracers have even succeeded in locating some of the most sought-after and rare varieties. We have discovered how to capture the flavor and aromas of exceptional chocolates, and how to guarantee constant taste and quality. We keep a close eye on new consumer trends, and carry out research aimed at developing the chocolates of the future. We have even set up our own schools in which aspiring chefs and confectioners learn all there is to know about chocolate and the many things that can be done with it. We do this all with one goal in mind: to offer you the pleasure of a unique treasure, that moment of pure indulgence which quality chocolate brings you.



Who are our customers?

Barry Callebaut is the world's largest producer of high quality cocoa and chocolate products. For example, we develop the chocolate and cocoa products that are used and/or marketed by:

The food industry

Industrial producers of dairy drinks and desserts, cookies, baking products, ice cream, confectionery, snacks, candy bars, breakfast cereals... we supply them all!

Chocolate professionals

The chef in your favorite restaurant, your local baker or confectioner, producers of hand-made chocolates... they all create their marvellous desserts, cakes, cookies and chocolates with the chocolate products that we develop for them.

The retail trade

You probably know us also from various consumer brands that you find in retail outlets. Under these brand names, we produce and sell chocolate bars, chocolate truffles, diet chocolate, breakfast chocolate products, etc. for particular markets.



◀ The food industry



◀ We produce the chocolate products for professionals: chocolatiers, pastry chefs, confectioners, chefs...

The food industry ▶



The retail trade ▶



We're everywhere, from breakfast to dessert!

Did you know that hardly a day goes by without us meeting one another? In fact, there is a good chance that the chocolate in your breakfast cereal is made by Barry Callebaut. Just like the chocolate on your donuts and cookies, the cocoa in your chocolate drink, the chocolate in and around your favourite sweets, or the chocolate in your dairy dessert.

Dairy products

Milk puddings and desserts are made even more delicious with cocoa or chocolate! Then there is chocolate milk. We make just the right chocolate and cocoa mixes in a range of colors and tastes. You'll also find our products in hot chocolate vending machines, in the form of powder mixes for chocolate drinks.

Chocolate products

In addition to the classic chocolate and fillings for bars, truffles, filled chocolates and sweets, we also develop the chocolates of the future: organic, without added sugar, lactose-free, or fiber-enriched.

Candy and confectionery

Snacks, candy bars and sweets become tasty energizers with that thin layer of lovely chocolate, silky smooth chocolate cream or crunchy chocolate chips.

Cookies and bakery products

Chocolate that can stand up to the heat of the oven is another of our specialities. You'll find these types of chocolate in cookies, cakes and bread products. We also supply the chocolate for your chocolate rolls, croissants and muffins, the chocolate sprinkles on your donuts, and the chocolate cream in your brioches.

Breakfast products

For adults and children alike, chocolate restores an appetite for breakfast! Just think of tasty breakfast cereals, chocolate sprinkles or chocolate spreads. We have also introduced extra-nutritious chocolate enriched with natural fibers.

Ice cream

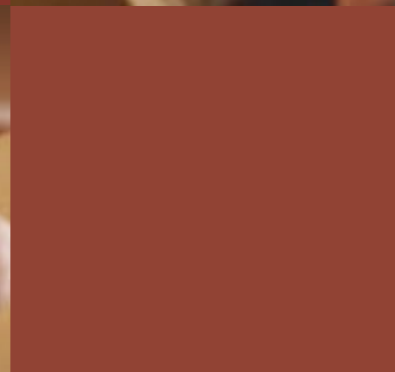
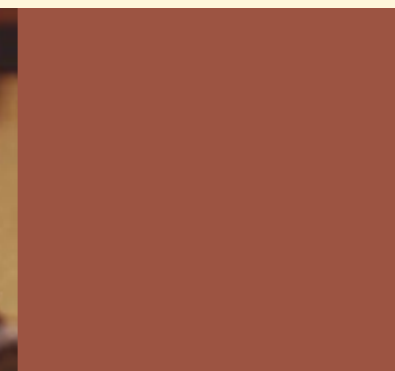
For every ice cream, there is just the right chocolate or a delicious alternative based on cocoa: from the crispy chocolate coating on ice cream bars to the fine chocolate and decoration products used by producers of handmade ice cream!

Desserts

Tearooms, snackbars, restaurants and caterers produce scrumptious desserts made with our chocolate, sauces and decoration products. In the past few years we have developed various new products that combine maximum taste with greater ease of use for the chefs. Examples include ready-to-use mixes for chocolate mousse, ready-made creams, etc.

Pastry

The chances are high that the chocolate in your favorite cake comes from us! We supply chocolate and cocoa products to the bakers and confectioners in your neighborhood. They can choose from literally hundreds of chocolate products, ideal for shop use.





Chocolates created by Dominique Persoone
The Chocolate Line (Bruges/Belgium)



DID YOU KNOW THAT...?

History

...chocolate was only a drink in its early history?

Chocolate hasn't always been the hard, shiny, crunchy delicacy we know today. Until the middle of the 19th century, it was mainly consumed as a drink: pressed "cakes" of chocolate powder were dissolved in hot milk or water.

...the chocolate bar was a British discovery?

The invention of the cocoa press by the Dutchman Coenraad Van Houten in 1828 first made it possible to manufacture solid chocolate. The British Fry family claim to have marketed the first chocolate bar.

...chocolate used to be for adults only?

Chocolate was for adults only before it became widely accepted as a nutritious and affordable foodstuff in the 1930's. Packaging design and product development began to focus on youngsters, to develop their taste for chocolate. Needless to say, they succeeded!

Economy

...the Aztecs gave us chocolate coins for Christmas?

Semiotics, the study of signs and symbols, indicates that images related to chocolate often involve gold, gold bars and coins. This may relate back to the use of cocoa beans as a form of currency by the Aztecs.

...cocoa may once have been worth its weight in gold?

In fact, it was its economic value that first made cocoa so appealing to the Spanish conquistadores. They used cocoa and cocoa beans to buy pumpkins (4 beans), slaves (100 beans) and other items from the Aztecs, who had developed a monetary system based on cocoa: 400 cocoa beans equaled 1 zontle, 20 zontles equaled one xiquipil...

...most of the world's cocoa comes from Africa?

Africa is the main producer of cocoa: each year, millions of small farms harvest about 70% of the world's cocoa crop. Ivory Coast and Ghana are the leading countries.



Interesting facts

...there's a world of difference between Belgian, French and Swiss chocolate?

They are all world famous, yet oh so different! Belgian chocolates are extremely fine, offering excellent taste and quality thanks to the selection of the world's best cocoa beans. French chocolate became renowned because French gastronomy promoted very dark and extremely refined chocolate in luxurious desserts. The secret of Swiss chocolate: famously pure, creamy milk, appreciated worldwide for its seductive silky smoothness and purity.

...chocolate may contain 5% vegetable fats other than cocoa butter?

The new chocolate directive issued by the European Union permits up to 5% vegetable fats other than cocoa butter to be used in the finished product. The fats used must be technically compatible with cocoa butter, and must come from specified sources processed under specific conditions. The vegetable fats must be clearly indicated on the packaging label.

...Fairtrade cocoa guarantees equal trade relations?

The Fairtrade organization arranges direct contracts with thousands of small-holding farmers, traders, etc. and ensures that they are paid a higher price for their products. Barry Callebaut is certified by this organization to produce a range of Fairtrade cocoa and chocolate products. These products are manufactured with raw materials such as cane sugar, cocoa liquor and cocoa butter that have been purchased from Fairtrade producers.

Health

...cocoa might be a stronger anti-oxidant than red wine?

Cocoa may counteract the oxidation which turns good cholesterol (HDL) into bad cholesterol (LDL). Scientists even suggest that cocoa flavonoids might have a stronger anti-oxidant effect than the flavonoids found in red wine.

...chocolate can be a pre-biotic?

Chocolate enriched with inulin and oligofructose (natural, 100% vegetable, active dietary fiber) can have a prebiotic effect: stimulating the growth of beneficial micro-organisms such as bifidobacteria in your digestive tract. These contribute to the microfloral balance of our intestines and thus help to protect it. They also help increase calcium absorption for strong bones and healthy teeth.

...there is a chocolate for people intolerant or allergic to milk?

Barry Callebaut has developed a chocolate that looks and tastes like typical milk chocolate but contains no milk products or lactose: milk is replaced by fine rice powder. This gives it a delicious taste and very nutritious properties.

...cocoa and dark chocolate are completely cholesterol-free?

Even milk chocolate and white chocolate contain only minimal quantities of cholesterol. These result from the addition of milk fats for taste and consistency.

Vitamins

...chocolate can provide vitamins A, B, D and E?

Vitamin A is mainly present in milk and white chocolate, but also, to a lesser extent, in dark chocolate. Cocoa and dark chocolate contain vitamins B1, B2, B3, B5 and B11. Milk and white chocolate contain a large amount of B12 from the milk powders added to the recipe. Vitamins D and E are present in dark, milk and white chocolate.

Minerals

...cocoa and chocolate provide a treasury of minerals?

They contain copper, magnesium, iron, phosphorus and calcium. 100 grams of milk or white chocolate contains between 20 and 40% of the Recommended Daily Allowance [RDA] of calcium.

Some myths

...many have believed that chocolate is an aphrodisiac?

Sadly, it seems there is no hard scientific proof for this effect.

...you don't get spots from eating chocolate?

The American Dietary Association and the American Academy of Dermatology currently discount any link between the consumption of chocolate and acne. No study has found evidence for chocolate as a cause of acne.

...chocolate isn't bad for your teeth?

Cocoa and chocolate alone do not damage your teeth. Scientific analyses of cocoa and chocolate indicate only very small concentrations of the substances that can cause cavities or carry out an acidic attack on tooth enamel. In fact, cocoa naturally contains substances that fight oral bacteria.

...eating chocolate doesn't keep you awake?

Despite the words of Bernard Diaz del Castillo, a companion of Cortés: "The pleasure of consuming chocolate keeps one traveling all day. It keeps exhaustion away, without one feeling the need to eat or to drink." There is no scientific evidence for any stimulatory effect. Cocoa and chocolate contain only minimal amounts of the stimulants caffeine and theobromine.

