

Where Is It From?

What Is It?

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Savor It.

# The Story of Chocolate





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Learn about the trees, farms and factories that bring us chocolate.

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Discover ingredients, types and chocolate's role in health.

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Appreciate chocolate's rich history and its place in today's communities.

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Learn what the labels mean, find recipes and start tasting.

## Your chocolate has a past.

The treat that you enjoy carries a story of exotic places, long journeys and small family farmers who raise delicate tropical fruit trees. People the world over have turned to this mysterious food for ritual, medicine and sheer pleasure for 4,000 years.



# Where is it from?



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Chocolate comes from the cacao tree, which is formally known as *Theobroma Cacao*.

The cacao bean begins life inside a fruit, called a pod, on a tree in the tropics, primarily in remote areas of West Africa, Southeast Asia and Central and South America. Cacao trees flourish only in the hot, rainy tropics, in a swath 20 degrees north and south of the Equator.

These delicate, flower-covered trees need much tending and grow in harmony in tropical forests beneath other cash crops such as bananas, rubber or hardwood trees.

Grown on small family farms, the beans leave cocoa farms by hand, in carts, on donkeys or rugged trucks to be sold to a local buyer and then to processors abroad. Once in the factory, they are ground, pressed, heated and stirred to create luxurious chocolate.

The fruit of the cacao tree is a football-shaped pod that comes in various colors—green, yellow, orange, red, purple or maroon. Inside each pod is sweet white pulp and juice—which can be used to make drinks with a sweet, mild flavor—covering 50 to 60 seeds.

## Flowers

Before the pod can grow, the tree's flowers must be pollinated. Insects pollinate them naturally,



or a farmer can do so by hand. Of the thousands of flowers on each tree, only three to 10 percent will become fruit.

## VARIETIES

The trees yield three main varieties:



**Criollo**, called the prince of cacaos, a rare bean grown mainly in Central America and the Caribbean



**Forastero**, a tree with thicker pods and a strong chocolate taste—most cocoa is of this variety, and it thrives in Brazil and Africa



**Trinitario**, a cross of Criollo and Forastero that originated in Trinidad and is easily cultivated with smooth pods and flavorful beans

## Beans

The 50 to 60 seeds that nestle in the pods' sweet juicy pulp are cocoa beans. If left to their own devices, the pods will not split open to spread the seeds. The ever-dependent cacao tree needs a helping hand from other creatures to do that.



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The seeds are so bitter that humans are the only ones who will eat them—and after much processing, at that. But the promise of delicious pulp attracts birds, monkeys and other rainforest animals. They crack the pods, slurp the pulp and spit the seeds onto the ground. And voila—if all goes well, a new cacao tree sprouts. Most new trees, however, are grafted from existing ones by human hands.

### Did you know?

**Most cocoa farms are not owned by the companies that make chocolate.**

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## Harvesting the Beans

Following a tradition of more than a thousand years, workers harvest the beans by hand—very carefully. They cannot climb this fragile tree with its soft bark and shallow roots. Instead, they use machetes to slice off the lower pods and long-handled mitten-shaped steel knives to snip the higher ones.

After gathering the pods, a farmer splits each one with a machete to expose the pod's soft center, then scoops out the white pulp and slips out the seeds, which quickly turn purple in the open air. At this point, the seeds do not look or smell like chocolate. They must first be fermented and dried, a process that turns the beans into

rich brown cocoa beans. When ready, the beans are taken to collection sites, poured into burlap sacks and sent to shipping centers and from there, to chocolate factories worldwide.

In the factory, the beans are roasted, ground and pressed. Chocolate making involves conching, a



process that kneads chocolate paste into an enormous array of chocolate products. Please see our website to read more about the important and fascinating steps involved to ship cases of chocolate products to distributors, confectioners and retail stores throughout the world.

### Did you know?

**Approximately 3 million tons of cocoa beans are turned into chocolate products each year.**

# What Is It?



## Kinds of Chocolate

There are three main types: Dark Chocolate, Milk Chocolate and White Chocolate. In addition, there are many other kinds including Baking Chocolate, Bittersweet Chocolate, Cocoa or Cocoa Powder, Semisweet Chocolate, and more.

## INGREDIENTS

Chocolate is a natural product made of these ingredients:

**Chocolate Liquor:** Cocoa beans with their shells removed that have been fermented, roasted and ground until they liquefy



**Cocoa Butter:** Natural fat from the cocoa bean; extra cocoa butter enhances chocolate's flavor and mouthfeel.



**Sugar** from sugar beets or sugar cane



**Lecithin:** An emulsifier, often made from soy, that makes the ingredients blend together.



**Vanilla** or vanillin and other flavors.



It also may include

**Milk:** For milk chocolate.



**Fruits, Nuts and other Add-ins:** For specialty chocolates.



## Health and Chocolate

Sure, chocolate tastes good—but is it good for you?

Chocolate has been an enjoyable part of people's diets and has been used as medicine by various cultures throughout the ages. In recent years, scientific evidence indicates that cocoa may be associated with a lower risk of cardiovascular disease. This is attributed to flavanols. Various studies indicate that people who eat chocolate on a regular basis were less likely to develop a range of cardiovascular problems. So yes, chocolate can be part of a heart-healthy diet.



### Did you know?

**It takes 400 cocoa beans to make one pound of chocolate.**

## Chocolate, Flavanols, and Health

Studies indicate that dark chocolate or cocoa is associated with a reduced risk of cardiovascular disease, and eating flavanol-containing chocolate and cocoa products can improve the cardiovascular system's function, make platelets less prone to form clots, and lower blood pressure.

For more on these studies, visit [www.thestoryofchocolate.com](http://www.thestoryofchocolate.com).

## Wellbeing

Here's proof of something you already know: studies have confirmed that chocolate may be associated with feelings of wellbeing. Behavioral research suggests that learning how to work favorite foods, such as chocolate, into a diet may help people



achieve and sustain healthy eating behaviors.

But how much can you eat as part of a healthy diet? Research provides a guide. In one recent study where a sweet snack was consumed daily as part of discretionary calories, the snack did not inhibit positive changes in body weight and body fat percentage.

### Did you know?

It takes two to four days to make a single-serving chocolate bar.

Learning how to include favorite foods such as chocolate may play an important role in achieving and sustaining healthy eating behaviors.

### HELPFUL TIPS:

**\* Count Calories:** Because chocolate is a calorie-dense food, a little goes a long way. Balance the calories in chocolate by cutting calories in other treats.

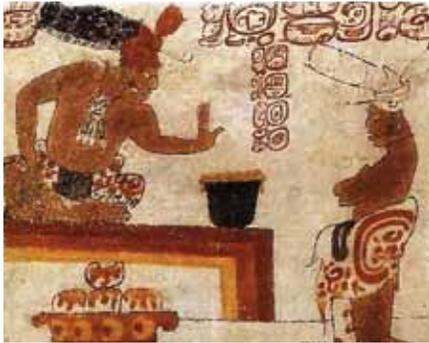
**\* Pair It:** Eat chocolate with other foods, such as fruit or pretzels, to complement flavors while enjoying smaller amounts.

**\* Explore It:** Enjoy the variety of flavor experiences from chocolate, available in a range from light to very dark, and try new and exciting flavors and fillings.

**\* No Scarfing:** To appreciate the complex flavors in chocolate, eat it slowly and take the time to savor every bite.

**\* Save Yourself:** To stick to modest portions, plan ahead and buy chocolates that can be portioned or are individually wrapped.

# Who Depends on It?



Humans' love affair with chocolate began at least 4,000 years ago in Mesoamerica, in present-day southern Mexico and Central America, where cacao grew wild. Chocolate has evolved into an industry so large that 40 to 50 million people depend on cocoa for

## Did you know?

Worldwide, 40 million to 50 million people depend upon cocoa for their livelihood

their livelihoods—and produce 3 million tons of cocoa beans per year.

For people who live in cocoa farming communities, chocolate feeds the body as much as the soul—it influences the tasks they do every day and provides a key source of income to feed their families.



## Family Life

Today's cocoa is still grown by hand, not by machine, through labor-intensive processes. Because the delicate cacao tree needs a narrow range of growing conditions and careful tending to thrive, large-scale

cocoa production is untenable. The world's cocoa supply is grown by 5 million to 6 million farmers, according to the **World Cocoa Foundation**. Most cocoa comes from small family-owned farms.

Through programs such as the World Cocoa Foundation (WCF) **Empowering Cocoa Households with Opportunities and Education Solutions (ECHOES) Alliance**, children and young adults in West Africa learn about leadership or entrepreneurship by planting school gardens, joining agriculture clubs, and literacy training. They also learn about child labor, HIV/AIDS and malaria. ECHOES offers Family Support Scholarships that help mothers increase family income and support children's education.



COURTESY OF NESTLE



## Children on Cocoa Farms

As in many other countries and for many other crops, children on cocoa farms help their parents as part of cultural tradition. The extra pairs of hands are needed to bring a successful harvest, and learning



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farming tasks serves as a first step in transitioning children to one day take over the family farm.

However surveys have found that too many children participate in unsafe farming tasks. In response, the global chocolate and cocoa industry has worked for more than 10 years and spent \$75 million with partners to help families and children in cocoa farming communities.

In 2010, the industry joined the U.S. Department of Labor, U.S. Senator Tom Harkin, U.S.

Representative Eliot Engel and the governments of Ghana and Cote d'Ivoire in a **new partnership**.

The industry has pledged \$7 million toward this **effort to foster safe, healthy and productive environments for children and families** by addressing hazardous labor practices, improving the livelihoods of farming families and ensuring that children have access to quality education.

## Economics

Around the world, 5 million to 6 million cocoa farmers depend on cocoa for their livelihood. The **World Cocoa Foundation (WCF)** puts annual cocoa production worldwide at 3 million tons, valued at \$5.1 billion. Cocoa is traded on the world market as a global commodity, and its price can fluctuate daily depending on supply and demand. For the past century, demand has grown 3 percent per year.

## Sustainable Growing Methods

Growing cacao in shade and using low-cost bio-control measures to cultivate trees enables farmers to be

### Did you know?

Some cacao trees are more than 200 years old, but most give marketable cocoa beans for only the first 25 years.



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more self-sufficient. From their own farms, they can harvest fruit and meat, build shelters, procure fibers for weaving and produce enough cacao and other products to supply income for the family. This also eliminates the need for the farmer to clear more land, saving the rainforest and enabling the farmer to reap diverse harvests from the same land for years to come.

### Industry Assistance

The global chocolate and cocoa industry shares sustainable growing methods with farmers, imparting knowledge gleaned from research, bio-control and bio-technology in order to produce more income and security for growers. Farmers earn between 20 to 55 percent more from their crops through the WCF programs.

One such effort is **Farmer Field Schools**, which support cocoa farmers with practical assistance and agricultural best practices that help them grow a better quality and higher quantity cocoa crop.

In partnership with the Bill & Melinda Gates Foundation and other manufacturers, the WCF's **Cocoa Livelihoods Program** is reaching at least 165,000 smallholder, cocoa-growing households in West and Central Africa.



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### Did you know?

Through some programs supported by industry and partners including foundations and governments, farmers are now earning between 20 percent and 55 percent more from their crops.



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These programs increase income for farmers and support better nutrition, health care and children's education, making a positive difference in quality of life for millions. Over the past decade, the industry has invested more than \$75 million on education, farmer training, agricultural improvement programs, and health programs, directly benefitting cocoa farming families.

Visit [www.thestoryofchocolate.com](http://www.thestoryofchocolate.com) to learn how individual companies are encouraging sustainable cocoa farming, and about certifications and farmer programs.

## Special Occasions

In Mesoamerica, where humans first ate cacao, ritual use survives. In Mexico, hot chocolate may accompany festive foods for two

## Did you know?

German chocolate cake was named for Sam German, who developed a sweet bar for Baker's Chocolate—and was not from Germany.

Christian holidays, the 12 Days of Christmas and Candlemas. Mexicans also celebrate Dia de la Muertos (Day of the Dead) from October 31 to November 2 by giving balls, bars and drinks of chocolate to friends and family and honoring the deceased with chocolate offerings.



In the United States, many of the chocolate dollars spent go toward celebrating holidays, to bring home Valentine's hearts or Easter bunnies, Halloween candy, chocolate Santas or Hanukkah gelt.

# Savor It



To bite the corner off a glossy chocolate bar, and then feel it melt and swirl slowly on the tongue, can be divine. Chocolate's smooth texture helps make it wonderful. While the unmistakable chocolate taste gets all the glory, cocoa butter provides chocolate's creamy goodness because it melts just below body temperature.

Enjoying chocolate is all about discovering what you like best. Join countless others throughout history and throughout the world who have used chocolate in rituals to celebrate, to heal, and to savor.

## Indulging

The best part of chocolate is simply eating it. Whether that means a mid-afternoon treat, a celebratory birthday cake, a fancy dessert made with extra rich ganache or a chocolate bar derived from single-origin beans is up to you.

Buy several different kinds. Try white, milk and dark. Experiment with chocolates you've never had before. For an extra-sensory experience:

**Arrange Them:** Lay them out, from light to dark, and from lower cacao percentages to higher.

**Sense Your Chocolate:** Notice the gloss and color of each chocolate. Starting with the lightest color and lowest cacao percentage, break



off a piece. Listen for a sharp snap, which indicates freshness and quality. Dark chocolate, with its higher concentration of cocoa liquor, will have the cleanest break.

**Breathe It In:** Next, bring your chocolate to your nose and inhale its aroma. A chocolate's aroma will vary depending on its variety, where it's from and how it was made.

**Taste It:** Bite off a small amount, and let it melt on your tongue. Then bite another small piece and chew it slowly. Notice how creamy it feels in

your mouth and whether it melts all the way. Higher-quality chocolates often have a smoother texture. Feel the flavors swirl.

**Repeat:** Cleanse your palate with a bland, unsalted cracker or a slice of green apple and a sip of water or seltzer. Then try the next in line; sample them all!

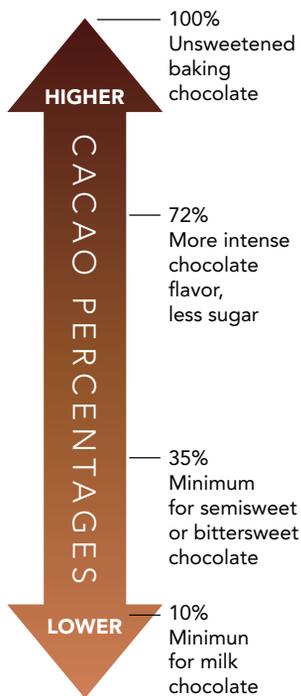
## Understanding the Label—Cacao Percentages

When you see “% cacao” printed on a label, it refers to the total percentage of ingredients by weight that come from the cocoa bean and is a guide to specific flavor intensity. Finding this number on the label can help you choose a chocolate that matches your taste preferences or your recipe's needs. Higher cacao percentages mean the following:

### Did you know?

There are an estimated 1.5 million cocoa farms in West Africa. Most cocoa—70 percent—hails from West Africa.

**\* Greater Flavor Intensity:** In general, a higher “% cacao” lends a more intense chocolate flavor. U.S. cacao standards require milk chocolate to contain at least 10 percent chocolate liquor. Semisweet or bittersweet chocolate must contain at least 35 percent. Cacao percentage refers to cocoa butter as well. For white chocolate, the entire



“% cacao” comes from cocoa butter and has a different flavor profile.

**\* Less Sweetness:** A higher “% cacao” means less added sugar. A 72 percent cacao dark chocolate has roughly 12 percent less sugar than a 60 percent cacao dark chocolate. Unsweetened baking chocolate is 100 percent

## Did you know?

**Chocolate contains two doses of cocoa butter—the natural amount from the bean, plus an extra dollop to bump up creaminess.**

cacao with no added sugar, and it is very bitter.

Note: The term “% cocoa” is interchangeable with “% cacao” and refers to the total content of ingredients from cacao, not cocoa powder.

## Spiritual Connections & Romance

With chocolate’s longstanding magical and mythical properties, it’s only fitting that the name of the tree it comes from, *Theobroma Cacao*, means “food of the gods.” Ancient Mesoamerican art, depicting cacao gods and goddesses, rituals,



and cacao in sacred caves and mountains, indicates the cacao tree may have been seen as connecting the gods and humans, heaven and earth.

Chocolate's reputation as an aphrodisiac makes it a natural choice for the celebration of love and romance.

## Mood-Elevating Treat

Why do so many people proclaim to love chocolate? Evidence shows that chocolate may induce feelings of wellbeing. Studies show that eating chocolate is associated with better subjective health, optimism, and feelings of happiness. In addition, research suggests that consuming chocolate may play an important role in achieving and sustaining healthy eating behaviors.

### Did you know?

Cacao beans were so valuable to early Mesoamericans that they were used as currency.



However, there is no scientific evidence that chocolate is addictive. People who desire chocolate likely do so because of its sensory properties, its melting sensations and intense taste. Chocolate has more than 1,500 flavor compounds—three times the number found in wine.

If you've read this far and not reached for a bite, bar, or box of chocolates, why not treat yourself right now? Chocolate is one of life's most affordable luxuries, so enjoy!

For more information about chocolate, please go to [thestoryofchocolate.com](http://thestoryofchocolate.com).





National Confectioners Association's  
**CHOCOLATE**  
COUNCIL

[www.thestoryofchocolate.com](http://www.thestoryofchocolate.com)