

# CACAO, FOOD OF THE GODS

Cacao (*Theobroma cacao*)

STERCULIACEAE, Cacao Family

Cacao, a [small evergreen tree](#) native to the lower eastern slope of the Andes in South America, is [the source of cocoa and chocolate](#). Cacao [grows in partial shade](#) at very low elevations between 20 degrees north and south latitude, where the average temperature is 25.5 degrees C (this species tolerates 15 to 35 degrees C), and the plants receive one to more than three meters of annual precipitation. Cacao can also be grown with irrigation.

*Theobroma* is Greek for "the food of the gods," and the common names are taken from the Aztec and Mayan languages. Aztecs considered cacao to be man's inheritance from Quetzalcoatl, the god of the air. Cacao seeds were made into a drink with the addition of maize (*Zea*) and vanilla (*Vanilla*) or a sauce (*mole*) with maize and chili peppers (*Capsicum*).

On his fourth voyage, Columbus intercepted a canoe with cacao, but it was Cortez who observed its use and carried back beans (seeds) to Spain, where it rapidly became a drink for the wealthy (cocoa) by combining cacao powder (bitter), maize, and vanilla with sugar. The Spaniards introduced cacao to Trinidad and Venezuela, but their monopoly was broken by the Dutch.

[Cacao](#) was cultivated eventually in western Africa, and in 1878-79 introduced on the mainland by free Portuguese laborers. A fellow named Cadbury (sound familiar?), a Quaker, helped the free laborers get established. Most world production now comes from Nigeria, Ghana, Ivory Coast, and Cameroon. However, swollen shoot disease, a virus that kills the trees within several years, is now a serious threat to the West African industry.

The [flowers and subsequent pods](#) are formed on [perennial "cushions"](#) along the [trunk](#) and [lower branches](#) (cauliflory). There are many pods per tree and [20-50 beans per pod](#). The [pod](#), a capsule, [grows for four month](#). The [fruit is harvested](#) then and broken open on a blunt object, so the [seeds can be removed](#). Seeds are [fermented](#) for a week [in a sweat box](#), turning from [ivory](#) to the characteristic purple-brown color. Fermentation not only produces the proper flavor and color, but also kills the embryo ([prevents germination](#)), loosens the seed coat, and removes the mucilage (sweatens, pectin and glucose filler in the fruit). After fermentation, the beans are [dried](#) and [stored](#), to be shipped to user countries.

Cocoa is made from the seed powder after the fat (cocoa butter) is removed, whereas cocoa butter is added to make chocolate. Sugar and vanilla are added in preparations to offset the bitterness of the alkaloids, caffeine and theobromine (and others), which constitute about 3% by

weight of the seeds. Nearly half of the seed weight is cocoa butter, and increasing the quantity of cocoa to chocolate is what determines how gooey and rich it is.

Certainly chocolate is now one of the most widely recognized of all foods around the world. The first chocolate mill in the United States was in Dorchester, Massachusetts, in 1765. The mill was purchased in 1780 by Dr. James Baker, becoming Walter Baker and Company and makers of the product still called Baker's Chocolate (and you thought that it had to do with baking!). Milk chocolate, the most common present-day form of chocolate candy, was first developed in 1876 by a Swiss candymaker named Daniel Peter, who blended the chocolate "liquor" with condensed milk. Shortly after in the United States, the industry was to be greatly expanded by Milton S. Hershey. Hershey began a candymaking business in Lancaster, Pennsylvania (1886). Hershey saw a German chocolate-making machine at the 1893 Chicago International Exposition and purchased one to coat his caramels. The Hershey Chocolate Company was opened in January, 1894, and the next month began marketing milk chocolate bars, along with breakfast cocoa, baking chocolate, and other forms of sweet chocolate. Hershey was so successful with the milk chocolate bars that he built a new factory in dairy country of Pennsylvania so his operation would be close to large supplies of fresh milk, and that operation opened in 1905 for mass production of milk chocolate. Hershey's company grew, so that in 1995 it is called Hershey Chocolate North America, a division of Hershey Food Corporation, with annual chocolate sales of more than two billion dollars. In addition to the bars, with or without nuts, and Kisses (first manufactured on 1 July, 1907), now with and without nuts also, the company also produces Reese's, Cadbury's, Peter Paul, Twizzlers, and Ludon's, and they also distribute Kit Kat.

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