

Making Chocolate

Chocolate is produced in a long and intense process beginning with strange looking seed pods produced by the cacao tree. This small tropical tree produces foot long pods on its trunk and larger branches. The first step in making chocolate is harvesting the cacao pods. Workers cut ripe pods weighing about a pound each from the tree trunk with a machete. The tough pods are split open with a stick or knife. The fresh pulp is a sweet treat often eaten by people in cacao-raising areas.

The moist beans and pulp are heaped into wooden boxes, covered with lids, and laid in the hot sun to ferment for five to seven days. The heat and natural bacteria on the outside of the pods causes the beans to swell and the pulp to ferment. The sticky pulp liquefies and drains away in about a day. Meanwhile, the rising heat in the mound of fermenting cacao beans gets so high that the seeds die and change color from white or lavender to dark brown. The outside coat hardens and the taste of the beans mellows.

Next, the fermented beans are cured. If cacao beans are not cured or dried properly, they will never develop the rich flavor and aroma we know as chocolate. When the beans are dry enough they are packed in sacks and shipped throughout the world as cacao beans. When the beans arrive at their destination, they are cleaned, sorted according to size, and roasted. The time and temperature of the roasting is the most important step in the processing of cacao beans into chocolate. This is when the enticing chocolate flavor and smell develop fully.

After roasting, the beans become dry and brittle and are now known as cocoa beans. The cocoa beans are cracked open and seed coats removed. The seed coats, called cocoa shells, are recycled into fertilizers, garden mulch and feed for cattle. The seeds themselves, now referred to as nibs, are ready to be ground into chocolate and cocoa products.

During grinding, cocoa butter is released from the cells of the cocoa beans. The grinding generates enough heat so the fat, called cocoa butter, melts and turns into a rich brown liquid known as chocolate liquid or liquor. This only means that it is



liquid, it does not contain alcohol. Chocolate liquor is the basic material from which other chocolate products are made.

If chocolate liquor is poured into molds to cool and harden, it is baking chocolate, also known as unsweetened chocolate or bitter chocolate. Chocolate liquor can also be turned into eating chocolate or separated into two ingredients: cocoa and cocoa butter. To make cocoa, the cocoa butter is squeezed from the chocolate liquid and drained off. The remaining hard brown cake is pulverized, sometimes mixed with additional ingredients, and sifted and packaged as cocoa. The melt-in-your-mouth chocolate you eat as candy starts by combining melted chocolate liquor with cocoa butter, sugar and flavorings. Milk or cream is added at this stage to make milk chocolate. The mixture is ground and kneaded (called conching), to develop a smooth texture and pleasant chocolate flavor. The mixture is tempered before it is poured into molds of various sizes and shapes.

Why do various brands of chocolate taste different? The actual details of processing and combination of ingredients used are closely guarded secrets and alter the taste and quality of chocolate produced. No company wants anyone to know how their special brand of chocolate is made.



Once cocoa is made into chocolate the process of producing candy bars occurs as the manufacturer mixes their chocolate with the various ingredients consumers prefer and form it into familiar shapes.