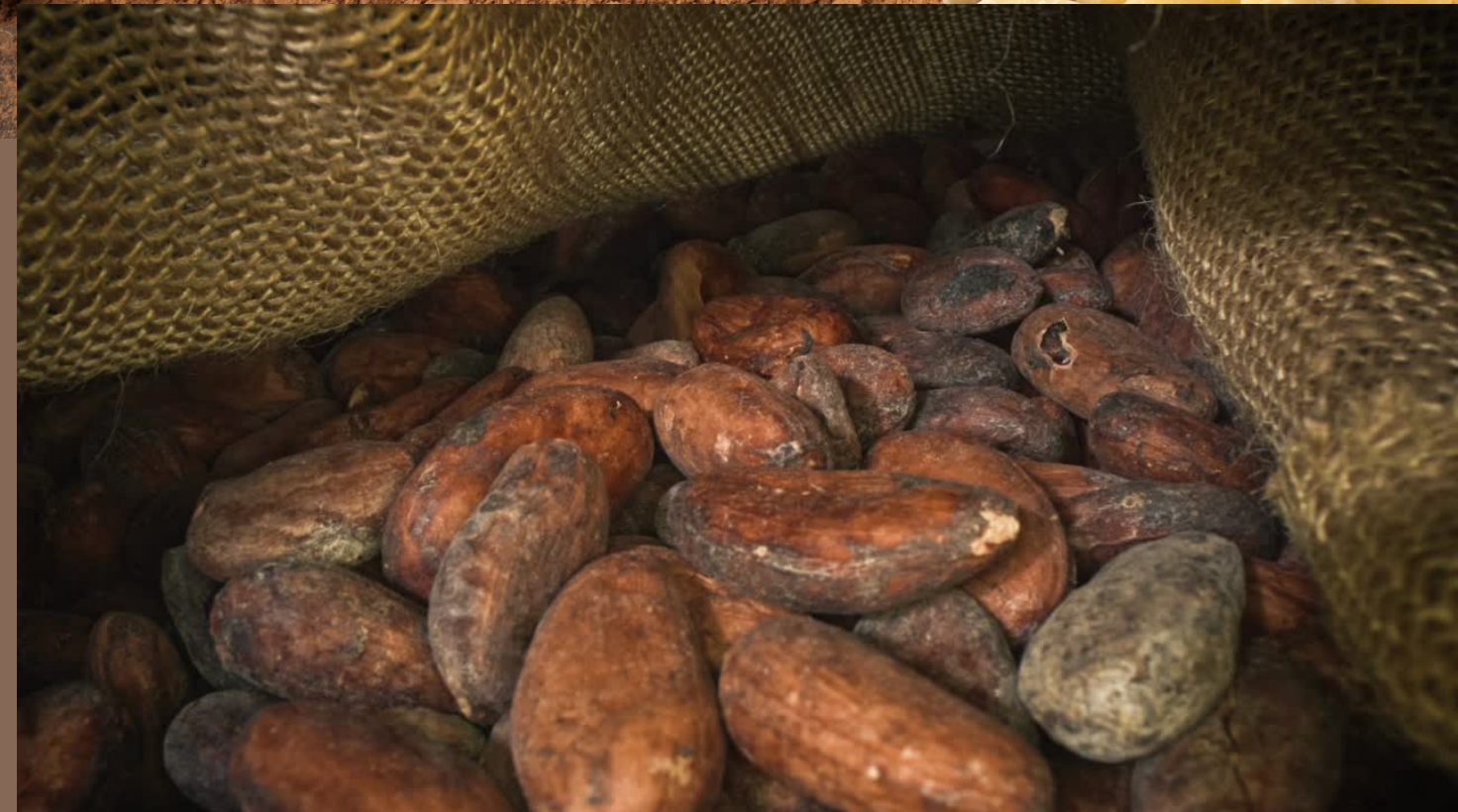


Module 2

Cacao-Derived Ingredients

Learn all the ingredients obtained and
derived from Cocoa bean: Extracts,
Butters, Powders,
Oils and More...



Cocoa Beans



The cocoa bean is the seed of the cacao tree (*Theobroma cacao*), a tropical plant indigenous to the equatorial regions of the Americas. From the processed cocoa bean comes the fluid paste, or liquor, from which cocoa powder and chocolate are made.

Cocoa Beans Processing

Harvesting: It can proceed all year, but the bulk of the crop is gathered in two flush periods occurring from October to February and from May to August. The ripe seed pods are cut from the trees and split open with machetes. The beans, removed from the pods with their surrounding pulp, are accumulated in leaf-covered heaps, in leaf-lined holes dug in the ground, or in large shallow boxes having perforated bottoms to provide for drainage.

Fermentation: During fermentation, the juicy sweatings of the pulp are drained away, the germ in the seed is killed by the increased heat, and flavour development begins. The beans become plump and full of moisture, and the interior develops a reddish brown colour and a heavy, sharp fragrance. The fermented beans are sun-dried or kiln-dried to reduce moisture content to 6–7 percent and bagged for shipment.

Cleaning: Cocoa beans are subjected to various cleaning processes to remove such contaminants as twigs, stones, and dust.

Roasting: Roasting develops flavour, reduces acidity and astringency, lowers moisture content, deepens colour, and facilitates shell removal. After roasting comes a cracking and fanning (winnowing) process, in which machines crack the shells and then separate them from the heavier nibs by means of blowers.

Grinding: The cell walls of the nibs are in turn broken by grinding, releasing the fat, or cocoa butter, and forming a paste called chocolate liquor, or cocoa mass.

Conching: Conching, a flavour-developing, aerating, and emulsifying procedure performed by conche machines, requires from 4 to 72 hours, depending on the results desired and the machine type. Temperatures used in this process range from 55 to 88 °C (130 to 190 °F) and are closely controlled to obtain the desired flavour and uniformity.



Cocoa Powder

Dry cocoa solids are the components of cocoa beans remaining after cocoa butter, the fat component, is extracted from chocolate liquor, roasted cocoa beans that have been ground into a liquid state. Cocoa powder is the powdered form of the solids sold as an end product. Cocoa powder contains flavanol antioxidants, amounts of which are reduced if the cocoa is subjected to acid-reducing alkalization. Health benefits have been attributed to cocoa flavonoids.



Cocoa Butter

Cocoa butter, also called theobroma oil, is pale-yellow, edible vegetable fat obtained from cocoa beans, having a mild chocolate flavour and aroma, and used in the manufacture of chocolate confections, pharmaceutical ointments, and toiletries. It is valued for its melting characteristics, remaining brittle at room temperature or lower but melting just below body temperature. One of the most stable fats known, cocoa butter contains antioxidants that discourage rancidity and allow storage life of two to five years.

Cocoa butter is high in fatty acids, which is why it's often touted for its ability to hydrate and nourish the skin and improve elasticity. The fat in cocoa butter forms a protective barrier over skin to hold in moisture. Researchers have discovered that compounds called phytochemicals in cocoa might help keep both your body and skin healthy.

Dark and White Cocoa Butter





Cocoa Absolute is a food grade solvent extracted oil from the dried bean pods of Theobroma cacao.

Cocoa Absolute is also well known for its anti-oxidant activity making it a useful oil for protection from free radical activity and the stabilization of sensitive oils. This is an excellent oil to add to citrus blends where protection from oxidation is crucial.

Cocoa Absolute



CO2 Extract is produced by CO2 supercritical extraction of cocoa beans, Theobroma cacao, resulting in a beautifully aromatic, nutritive extract.

Cocoa CO2 Extract is rich in saturated fatty acids and possesses a thicker consistency similar to CO2 Totals that are abundant in fatty acids.

Cocoa CO2 Extract is solid at room temperature and is tan/caramel in color. It melts easily with gentle warming to 105 degrees Fahrenheit (40 degrees Celsius).

Cocoa CO2 Extract



Cocoa Tincture Extract

Cocoa extract derived from the cacao bean, with potential vasodilating, anti-inflammatory, cardiovascular protective, neuroprotective, cognition enhancing and chemopreventive activities. Cocoa extract contains flavonoids, including high levels of epicatechin, catechin, procyanidins and xanthines, such as theobromine.

