

Cocoa (Gold/Red)

Theobroma cacao



Common names	Cacao, Coca, Coco, Koko, Kawkaw, kagaw, cacahuat.
Origin	Cacao originated millions of years ago in the upper regions of the Amazon River Basin in what are now Peru, Ecuador, Colombia and Brazil. It belongs to Sterculiaceae family.
Description	Cocoa beans are the seeds, contained in a cucumber-like fruit, of the cacao tree, The cocoa fruit can be red or gold in colour and cocoa beans inside, that are used to produce chocolate, are covered with a thin layer of white pulp.
Growth Habitat	Cocoa trees grow in tropical areas such as Central Africa, Central America, Sri Lanka, Indonesia and Malaysia.
Foliage	Leaves are alternate, entire, unlobed, 10-40 cm long and 5-20 cm broad.
Flowers	Clusters of small white flowers with a pink calyx grow on the trunk and older branches of the cocoa tree. Rather than bees, cocoa flowers are fertilized by small flies.

Fruits	The fruit, called a cacao pod, is 15-30 cm long, ripening from yellow to orange, and weighs about 500 g when ripe. The pod contains about 40 seeds, usually called "beans", embedded in a thin layer of white pulp. The seeds are the main ingredient of chocolate, while the pulp is used in some countries to prepare a refreshing juice.
Soil	The soil should be rich in nutrients, up to 1.5m deep, moist with good drainage.
Pruning	Ideally, a cocoa tree should have a crown 1.5m above the ground with 3 to 5 branches. During the first year, cut the weaker shoots, leaving the stronger ones. If the crown forms too low, let a shoot grow straight up and a new crown will develop from that.
Fertilization	For sandy soils, the NPK compound fertilizer formula is 13-10-15. For granitic soils, the formula is 12-15-18. During the first 2 years, in April and September give 125g. For the 3 rd year onwards give 250g. Fertilize in a ring around the tree, 1 m from the tree trunk.
Propagation	Cocoa plants can be propagated through seeds, cuttings, budding and marcotting.
Harvest	The cocoa pods are plucked from the branches and split opened with a wooden club or machete. The cocoa beans are allowed to ferment. The beans are then dried to reduce moisture content from 60 to 7.5% before being bagged for delivery.
Nutritional Properties	Cocoa is a good source of protein, riboflavin and zinc. It is also high in dietary fibre, magnesium, iron, phosphorus, potassium, copper, manganese and theobromine.
Health Benefits	Chocolate is reputedly the richest source of the mineral magnesium. The seeds are rich in copper, sulphur and Vitamin C. Cocoa's numerous health benefits:

	<ul style="list-style-type: none"> • promotion of cardio-vascular health • decreased oxidation of LDL to prevent atherosclerosis or plaque formation • reduction in LDL cholesterol • elevation in HDL cholesterol • Suppression of decay-causing bacteria and plaque formation (Water-soluble cocoa extracts) • Anti-depressant and euphoric effects (Tryptophan in chocolate) • Stimulant effects (theobromine, phenylethylamine in cocoa) • General improvement in health and well-being of elderly men • Montezuma drank large quantities of a cocoa beverage reputed to have aphrodisiac and health properties. The drink was reserved for the male elite, nobility/royalty and religious ceremonies.
Commercial Uses	<p>Cocoa butter is widely used in beauty products such as body washes, lotions and lip salves. It is also used as vegetable shortening for baking. Since cocoa butter liquefies at body temperature and is solid at room temperature, it is combined with medication in capsules and used in suppositories. Pregnant women use cocoa butter to prevent stretch marks and as a supplement, it is a rich source of antioxidants.</p>
Food Suggestion	<p>Hazelnut Chocolate Brownies</p> <p>Ingredients : 150g dark cooking chocolate, broken into pieces 175g butter 175g soft brown sugar $\frac{3}{4}$ tsp vanilla essence 3 eggs Sifted twice: 135g plain flour 80g cocoa powder</p>

1 tsp cinnamon powder

$\frac{1}{2}$ tsp salt

100g roasted hazelnuts, very coarsely chopped

Method :

1. Line a 21cm square baking tin with lightly greased aluminium foil. Preheat oven to 180°C.
2. Melt butter and chocolate over simmering hot water until both chocolate and butter melts into a paste.
3. Remove from heat and add in sugar. Stir until sugar dissolves. Leave aside to cool.
4. Add eggs, one at a time into the chocolate butter paste and add in essence, sifted flour and cocoa mixture.
5. Stir in hazelnuts.
6. Pour batter into prepared tin and bake for 30 minutes.
7. Allow brownies to cool for 10 to 15 minutes then cut into slices.