

Where we get our chocolate

BY DR REESE HALTER, FOR THE HERALD

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Consider for just one moment where your scrumptious chocolate came from, and you might be surprised to know that it is a gift from the chocolate tree.

You might also be surprised to learn that while chocolate helps you get that loving feeling (literally) trends in how chocolate trees are grown is leading to much misery around the world -- including for young children.

The story of chocolate dates back at least 3,200 years to the time of the Olmec people of Middle America -- it is rich with history, intrigue and flavour.

In North America alone we consume more than \$17 billion worth of chocolate products, including drinks, candy and cosmetics. In fact, North Americans consume about five kilograms per person per year, most of it between meals. The Swiss hold the world record at 10 kilograms per person per year.

Chocolate comes from the tropical cacao tree's cantaloupe-sized bean pods. More specifically, it's the flavoursome seeds inside the pod. There are three species with over 90 per cent of the pods coming from Forastero cacao. The most valuable chocolate, with a fruity, spicy flavour, comes from the Criollo cacao. Trinitario cacao is a cross between the other species and its seeds add extra flavour to the Forastero seeds.

The Mayans drank the bitter seed extract (and added chilies) with every meal and they traded it with the Aztecs, who lived in drier, cooler places where cacao trees could not grow. Ever since it was discovered, cacao has been in great demand.

Evidence of chocolate in the United States dates back to about AD 1000 in Pueblo Bonito in Chaco Canyon, N.M., some 1,600 kilometres away from the nearest cacao plantation. It was a prized item of trade between the Chaco Canyon residents and the Mayans in Central America.

Chocolate not only tastes good, but it alters our body's mood-affecting chemicals, including serotonin, endorphins and phenyl ethylamine, which the body releases in response to romance.

Chocolate contains caffeine, antioxidants and also high levels of chemicals known as phenolic compounds, which in chocolate may help combat coronary disease. Phenolics are known to prevent fat-like substances in the blood stream from oxidizing and clogging the arteries. Certain chocolate phenolic compounds known as flavonoids are being tested to combat heart disease. The Kuma people of Panama drink up to 40 cups of unsweetened cocoa a week and their risk of heart disease, stroke, cancer and diabetes is very low.

Chocolate does not promote acne. Acne is related to human hormones. Dogs are extremely allergic to theobromine a stimulant compound in cacao. Chocolate is poisonous and depending upon the quantity, it may be fatal for dogs.

Cacao trees naturally grow in the understory, and seedlings need shade. Tiny flowers, growing on tree trunks and lower branches,

depend upon midges and other insects, which feed on the flower's nectar, to cross-pollinate the trees.

Inside each large pod is sweet pulp and between 25 and 50 seeds. It takes about five months for the pods to ripen.

In an attempt to increase yield, some plantations remove the native overstory thereby casting 100 per cent sunshine onto the cacao seedlings. Without the natural plants and animals in the tropical rainforest, the natural pest protection system as well as fertilization is lost. The cacao trees become very susceptible to disease, must be sprayed with toxic pesticides and the soil treated with petrochemical fertilizers.

Moreover, West Africa produces about 40 per cent of the world's cocoa and at least \$118 million per year of the gross \$1.4 billion in sales goes toward fuelling conflicts and buying firearms. Worse still, according to the International Institute of Tropical Agriculture, an estimated 284,000 children are enslaved in hazardous conditions along the Ivory Coast and other African countries, where they work on cacao plantations, applying pesticides and using machetes.

That's why it's important to support Fair Trade-certified cocoa, chocolate bars and chocolate chips sold in more than 2,000 retail locations across North America, including Safeway and Wal-Mart.

Hershey's and M&M/ Mars control two-thirds of the \$17-billion North American chocolate market and it's vital for consumers to insist that they scrutinize the cacao plantations -- like Starbucks has done in coffee plantations -- and protect children's rights.

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