

The TROPICAL HOTHOUSE

FROM CAR TYRES TO COFFEE BEANS

Start

1. VANILLA ORCHID *Vanilla planifolia*

Origin Central America
Cultivated Worldwide

The global expansion of the vanilla pod industry was probably started in 1837 by a twelve year old slave, Edmond Albius, living on a remote French island!

Edmond discovered that when grown outside of its natural habitat, vanilla requires hand pollination. Pollination is a complicated and labour intensive process, and vanilla pods can take many months to form.

In its native environment, this climbing vine can grow up to ten metres, where the flowers are pollinated by the native bees. Each flower only opens for one day and is most receptive to pollination in the morning.

The vanilla flavour is released when the ripe pods are cured.

Next time you enjoy vanilla ice cream or smell vanilla, think about the effort required to produce pods from this unique vine!

2. PINEAPPLE *Ananas comosus*

Origin South America
Cultivated Worldwide

Pineapple is grown commercially in many regions with warm climates, including Hawaii and Northern Australia. Its botanical name is derived from the South American Indian name for 'excellent fruit' (ananas) and furnished with a tuft' (comosus).

Growing to one metre high, pineapple forms a dense rosette of leaves with spiny margins. Only one fruit is produced by each plant per season, but an individual plant may produce fruit for 50 years.

The fruit we know is actually composed of more than 100 fertilised flowers fused together around a central core - imagine each segment of a canned 'pineapple ring' is from a fertilised flower.

Christopher Columbus is believed to be the first European to discover pineapple when he visited the island of Guadeloupe where he saw freshly pickled vegetables and fruits, including pineapples.

3. RUBBER TREE *Hevea brasiliensis*

Origin Central America
Cultivated West Africa & South East Asia

From car tyres to rubber gloves, the uses for rubber are almost endless! The Rubber Tree is our most important natural source of rubber, and is grown in huge plantations around the world.

The Rubber Tree is a member of the Milkweed or Spurge family (Euphorbiaceae). It's from the milky sap that we make rubber.

To harvest rubber a groove is scored in the bark, deep enough to allow the sap to flow out. This is re-opened everyday to drain off more sap, which is collected in a cup wired to the trunk. This process does little damage to the tree, and rubber trees can be harvested daily for 25 years or more. Once collected, the sap is processed into rubber.

4. COCOA *Theobroma cacao*

Origin Central America
Cultivated West Africa & South East Asia

The Cocoa Tree grows to eight metres and bears large fruits (or pods) that may be green, yellow, red or purple. Inside these pods is fleshy white pulp in which up to 60 seeds, or beans are embedded.

The Cocoa Tree was honoured by the Aztecs as the "Tree of Life". The beans were extracted, ground and mixed with honey, vanilla and chilli. Cocoa was a drink that was consumed by warriors going to war. The Spanish conquistador Hernan Cortes said of cocoa "A cup of this precious drink permits man to walk for a whole day without food".

Producing cocoa is not an easy task - ripe fruit pods are picked and fermented for about two weeks. The flavour is further enhanced by roasting the beans which are then pulverised to produce cocoa powder.

5. COFFEE *Coffea arabica*

Origin Probably Ethiopia
Cultivated Worldwide

The origin of coffee is somewhat shrouded in mystery. One legend dating from around 800 AD has it that an Ethiopian goat herder noticed his goats frantically frolicking after eating small red berries that contained seeds we now know as coffee beans!

By 1000 AD, coffee had been transported by traders to the Red Sea and Arabia where it was first cultivated. Beans for export were made infertile by parching and boiling them, as a way of protecting the industry.

Through trade, coffee reached Europe via Turkey in the early 1600's. Today it is grown in most tropical regions, notably in Brazil which provides almost half the world's crop.

A rainforest plant, the coffee shrub can grow to a height of three metres. It has shiny green leaves, fragrant white flowers and clusters of pulpy red berries, each of which encloses two seeds or beans.

Coffee is so popular worldwide that in 2001 approximately 500 billion cups were consumed and roughly 25 million people were employed in the industry.

6. GINGER *Zingiber officinale*

Origin Unknown
Cultivated Worldwide

This plant was once known to the ancient Greeks as Ziggiber or Zingiberis from the Sanscrit name for the spice Singabera. For thousands of years ginger has been used as a medicinal herb or culinary spice in India and China.

The ginger plant was taken by traders to the Mediterranean region in the 1st Century AD. It was transplanted to the West Indies by the Spanish Conquistadors in 1547. Strangely, it is only known to exist in cultivation, not in the wild.

Ginger is an herbaceous perennial that grows best in humid, tropical conditions. It produces upright green stems with lance-shaped leaves and bears spikes of yellow flowers in summer. It is the horizontal underground stem (rhizome) that we eat as ginger.

Ginger is usually ground to powder or preserved in sugar to flavour various foods and beverages.

VITAL PLANTS

7. PEPPER *Piper nigrum*

Origin Southern India & Sri Lanka
Cultivated Worldwide

One of the world's most widely used spices, pepper has been cultivated in the East for more than 3000 years. It was once valued as highly as gold. Moreover, it is said that Attila the Hun demanded, among other items, 3000 pounds of pepper in ransom for the city of Rome in the 5th century.

Although native to South India, pepper is now cultivated in many countries

Pepper is a vigorous vine that can climb up to ten metres high. It produces tiny pale flowers which are followed by small, rounded berries borne on long, hanging spikes. The berries, which turn red when ripe, contain a single seed. When dried, these are known as peppercorns. Black pepper is made from the unripe seeds with the flesh still attached, whereas white pepper is made only from the seeds.

8. QUEENSLAND NUTMEG *Myristica insipida*

Origin Northern Queensland
Cultivated Tropical Australia

Nutmeg is famous for providing the distinctive flavouring in many kinds of baked goods, puddings, soups and alcoholic beverages.

It was so important that in the 17th century Manhattan Island was offered in exchange for a small spice island in the Moluccas.

The best known species of nutmeg (*Myristica fragrans*) is associated with centuries of history and intrigue. First introduced into Europe as early as 540 AD, this spice became an expensive commercial product. Nutmeg was so important that in the 17th century that Manhattan Island was offered in exchange for a small Spice Island in the Moluccas only a few square kilometres in area!

Queensland Nutmeg (*Myristica insipida*) is endemic to Australia, and as the name implies, is less flavoursome. It is a small to medium evergreen tree found in coastal, tropical rainforests of Northern Australia.

Queensland Nutmeg (*Myristica insipida*) is obtained from the oval brown seed of the yellow-brown, leathery fruit. Indigenous Australians used from the wood from the tree for making woomeras (a tool for throwing spears), paddles and digging sticks.

Finish



Every day we use plants and their products: from car tyres to coffee beans, pencils to plane fuel, humans are completely dependant on plants. Many of these plants come from Tropical Rainforests and many more are yet to be discovered. This walk will explore some of the better known plants and their uses.

please:

consider the environment and return this guide for other visitors to enjoy.



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Desire



VITAL PLANTS



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