

Aliens of Kamayca

a newsletter on non-indigenous species in Jamaica

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**THE SILK COTTON TREE
(CEIBA PENTANDRA)**

The Silk Cotton Tree or Cotton Tree (*Ceiba pentandra*) is a native of tropical America and can be found throughout the tropics.

It is approximately 10–40m (33–131ft) in height and is deciduous, i.e., it sheds leaves annually. The trunk and branches may or may not be covered with prickles and the trunk is buttressed (having a flared base). The crown of the tree is large and can attain widths up to 40m (131ft).



The Silk Cotton Tree
(©<http://striweb.si.edu/ctfs/webatlas/plant.photos/ceibpe.arq.jpg>)

Flowers of the Cotton Tree are creamy-white to peach or rose coloured. The fruit is a woody capsule, about 10–30cm long that splits into five (5) parts.

The seeds are black, globe-like in shape and are embedded in cotton or kapok that is white to brown in colour. Flowering and fruiting occurs in January to February and March respectively.

The tree is considered to be sacred in both Africa and the Americas and is a symbol of long life and continuity. Traditionally it is held in awe and reverence as the dwelling place of spirits.



Flower and fruit of the Cotton Tree
(©home-and-garden.webshots.com & <http://en.wikipedia.org/wiki/Kapok>)

The Tainos also called the tree “guasina” which meant “the dwelling place of spirits”. It is also called “God Tree”. Due to the superstitions associated with the tree, permission was often sought of the spirit believed to be in the tree and an offering made (e.g. rum, corn or chickens) prior to cutting the tree.

Mishaps occurring to persons who have cut limbs off the tree without permission has been rumoured. In Jamaica, the belief was that the Cotton Tree is an important dwelling place for spirits of the living and of the dead and was a shrine of sanctuary that served as a place for communing with the spirits, those

lost or those stolen that could be recovered.

The Cotton Tree is also a prominent feature of the Jamaican landscape and is occasionally found from sea level to 760m with most of the trees being planted.



Leaves and fruit of the Cotton Tree
(©<http://striweb.si.edu/ctfs/webatlas/plant.photos/ceibpe.arq.jpg>)

It plays a role in Jamaican folklore in its association with the spirit world by virtue of its height and extended branches, its presence in graveyards and the notion that “spirits of the dead live in its roots and branches”.

Cotton Trees in graveyards were feared and called “worship cotton trees” and regarded as “tombs of the dead” and “associated with the spiritual”.

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THE SILK COTTON TREE (*CEIBA PENTANDRA*) CONT'D

The Cotton Tree has been mentioned in Jamaican proverbs such as “*Cotton-tree eber so big lilly axe cut him*” [The big can be humbled by the small]; “*When cotton-tree tumble down, nanny goat jump ober him*” [The great can be taken advantage of when circumstances change] and “*Cotton-tree no know how him botton ‘tan’, him no call breeze*” [Challenges are extended when one knows their strength].

The historic treaty between Cudjoe, the Maroons and Colonel Guthrie, who acted on behalf of the English, was signed under a Cotton Tree.

The tree is also important in traditions of dance and religion in the forms of Kumina, Obeah and Myal respectively. Obeah and Myal involve indi-

viduals who try to make contact with spirits in order to influence the course of natural events.

Half-Way-Tree, the capital of St. Andrew, was named after a Cotton Tree that was located near the Parish Church and at the junction of four roads; from Spanish Town to downtown Kingston and the roads leading from the rural parishes of St. Andrew and St. George (Portland) and St. Mary.

The tree is reported to have been there before the arrival of the British in 1655 and remained until the 1860's or 70's.

It was also the half-way point between Greenwich in the St. Andrew Hills where the English soldiers had their camp

and their fort that was located near Spanish Town.

The soldiers always rested under the Cotton Tree enroute to the fort. In addition, the roots of the tree provided a resting place for market vendors between their homes in the hills and the markets in the city.

Other uses of the Cotton Tree include as a source of food (leaves and fruit), medicinal (leaves, root, flowers, seeds and fruits), fodder, oil (seeds), timber e.g. dug-out canoes, coffins, cricket bats and shade. The oil is also used to make soap, as a fertilizer and as fuel.

The tree is also used for fibre as silk or cotton-like fibres are obtained from the fruit. The fibre is reported to be very light, resistant to water,

very buoyant, resilient and highly flammable. It is also used as ‘stuffing’ for mattresses, upholstery, pillows, teddy bears, life jackets and for insulation. The Tainos also spun the fibre into cloth.

Cotton Trees due to their height was also used as markers by sailors as they could be seen from far out at sea. They also provide a habitat for a variety of wildlife such as orchids, wild pines, birds' and creepers which also add to its ghostly appearance.

Extracted from "Dictionary of Place-Names" by Inez Knibbs Sibbles; "Encyclopaedia of Jamaican Heritage" by Olive Senior; "Manual of Dendrology Jamaica" by Tracey Parker & "The Cotton Tree and the Spiritual Realm in Jamaica" by John Rashford in the Jamaica Journal, Volume 18, No. 1

THE AFRICAN TULIP TREE (*SPATHODEA CAMPANULATA*) P. BEAU V

synonyms: *Spathodea danckelmaniana* Buettner, *Spathodea nilotica* Seem., *Spathodea tulipifera* (Thonn.) G. Don

The African Tulip Tree or Flame-of-the-Forest, is a West African flowering plant, which was introduced into tropical and sub-tropical regions for ornamental purposes. The tree has a bushy oval crown.

The leaves are pinnate, with leathery, dull olive-green leaflets. The leaflets are smooth on the upper surface, but somewhat hairy on the underneath.

A very conspicuous feature of the plant is the greenish-gold calyx (flower-encasing) which holds the flower buds. These buds become engorged with liquid nectar as they mature. The claw like calyx splits from the base, and the flaming scarlet, deep yellow flower emerges; hence the common name Flame-of-the-Forest.

The large petals are arranged like cups, and hold nectar, rainwater and dew. These catchments are very appealing to birds. The brightly coloured flowers, perhaps the most distinctive feature of

this plant, is most likely the reason for its use as an ornamental, and consequently it being brought to Jamaica.

It has become very widespread across the island, and in some areas, there are established populations which have been naturalised.

Although the tree is planted for its aesthetic value, it is still considered an invasive, as there are regions across the island where it poses or has the potential to pose serious threat(s) to native species populations.

In 2006, it was cited on the Global Invasive Species Database website and has been nominated among the “100 of the World's Worst invaders”.

Spathodea usually invades the ecosystem, smothering other flora as it seeks to establish a self-sustaining population. This can result in serious disruptions in the biodiversity of the area.

It has been noted that biological control of the species is observed in the presence of *Pinus spp.* and sugar cane.

THE AFRICAN TULIP TREE
(*SPATHODEA CAMPANULATA*) CONT'D

Both the pine trees and sugarcane appear to compete with the young *S. campanulata*.

S. campanulata is usually found in agricultural, forested or disturbed areas. The plant is able to reproduce by wind-dispersal methods (the seeds are carried by wind and deposited in suitable soil) and also by sprouting from root suckers and cuttings.

The limbs of the tree are fairly

brittle, and as such, trimming them is usually advised, especially, during the hurricane season.

Coupled with the propensity of the root suckers to be very vigorous, planting of these trees next to pavements or close to buildings is not recommended.

Other common relatives in Jamaica: The African Tulip Tree is related to *Crescentia*

cujete (calabash tree), which is widely known for its use in the craft industry here in Jamaica.

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African Tulip Tree (above) and close-up of flower (left)
(© Keron Campbell)

THE INVASIVE GIANT FERN
ANGIOPTERIS EVECTA (G. FORSTER) HOFFM.



Maarten Christenhusz collecting *A. evecta* in Hardwar Gap, Jamaica

Angiopteris evecta (G. Forst.) Hoffm., a member of the family Marattiaceae (order Marattiales) is commonly called the Giant Fern, King Fern, Oriental Vessel Fern and Mule's-foot Fern. Considering its size, with leaves growing up to 6m long, the name Giant Fern seems very appropriate.

The Giant Fern is native to New Guinea, coastal Australia, Melanesia, Micronesia and Polynesia (Rolleri, 2003).

Angiopteris is a very ancient genus dating back millions of years through fossil records. The prefix 'Angio-' of the generic name is a Greek term denoting a diminutive capsule (vessel or bottle), in allusion to

the small separate sporangia (Proctor, 1985).

The Giant Fern is a large ground-dwelling fern with short, broad, massive and erect rhizomes with complex vascular structures. The bipinnate fronds are massive, up to 6m in length and were reputed to be the largest fronds of any fern on earth by Jones and Clemesha (1993). The stipe (leaf stalk) is fleshy, green, smooth and swollen at the base.

Apart from its native range, Christenhusz and Toivonen (2008), indicated that this species has been introduced into other localities since the 18th century and is now listed as an invasive species in several regions (Jamaica, Hawaii and Costa Rica).

The Giant Fern was brought into cultivation not long after it was discovered by Forster in 1786, owing its ornamental appeal to its rhizomes and gigantic leaves. They are

commonly cultivated in botanical gardens worldwide.

The species was introduced as a supplementary food crop to Jamaica by Captain Bligh, who also introduced Breadfruit trees (*Artocarpus altilis*) and Ackee (*Blighia sapida*) under the attention of an English botanist.

Giant Ferns have long been cultivated at Castleton Gardens, St. Mary, approximately 51.5km (32 miles) from the nearest known naturalized plants (Proctor, 1985).

In *Ferns of Jamaica*, Proctor (1985) stated that the fern occurred in a wild state only in the headwaters area of the Rio Grande Valley, St. Thomas where it had become naturalized and typically thrived in wet rocky ravines and wooded hillsides on primary lower montane rain-forest at middle elevations of 381-610m (1,250-2,000ft). Its relative abundance was described as not common.

Currently, the Giant Fern has spread throughout the eastern half of Jamaica, where it is now commonly found in the Rio Grande Valley and throughout the Blue and John Crow Mountains (Christenhusz & Toivonen, 2008). It has been found as far as Fern Gully, St. Ann to the west and as high as Portland Gap, Portland (1,250m high).

Christenhusz and Toivonen (2008) noted that the entire island of Jamaica is predicted to be susceptible to invasion by the Giant Fern, provided the site is wet enough. The cultivation of this fern is therefore not recommended as most likely it will result in further expansion of its distribution across the island.

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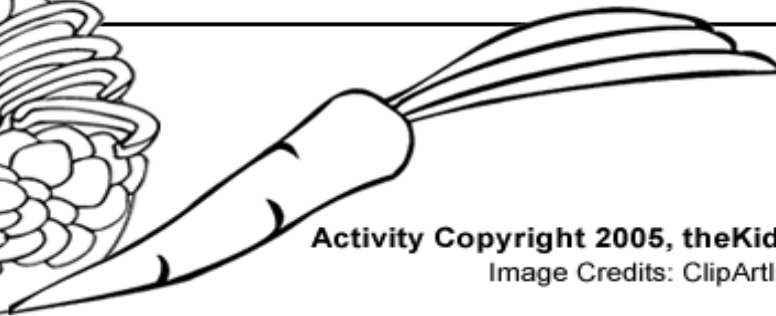
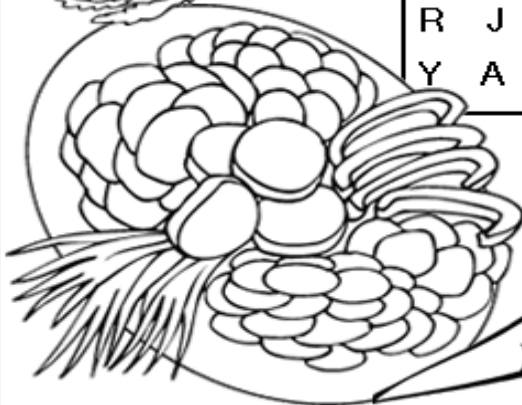
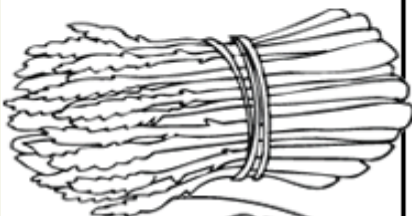
Vegetables Word Search

Search the puzzle for the words shown in the word list. Circle each word that you find until you find all of the 24 vegetable-related words.

Word List

brussels sprouts	
potato	cucumber
pumpkin	lettuce
alfalfa	parsley
artichoke	pepper
asparagus	rhubarb
avocado	carrot
broccoli	radish
cabbage	beans
cauliflower	spinach
celery	zucchini
corn	yam
	pea

Y A M B R O C C O L I R B A G
 C A U L I F L O W E R D Q L P
 C U C U M B E R N Z T T C F A
 Y Y N S P I N A C H S J O A R
 Z R O A E C A B B A G E R L S
 M Z O R A D I S H M V B N F L
 K A A S P A R A G U S G X A E
 R F A Q M B P U M P K I N Y Y
 B R U S S E L S S P R O U T S
 C Q O P N A L E T T U C E L M
 E K G O S N A R T I C H O K E
 L O U T I S R H U B A R B D T
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 R J V T C A R R O T T N E F F
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