

## SOME USEFUL PLANTS OF THE BOTANICAL FAMILY LAURACEAE

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Cinnamon spice for cooking, bay leaves for flavoring, camphor for moth repellent and medicinal purposes, myrtlewood and stinkwood furniture, sassafras tea and avocado fruits to eat are all products from the botanical family Lauraceae to which the avocado belongs. The family Lauraceae, which derives its name from the prominent member, the Grecian laurel, *Laurus nobilis*, is characterized by plants which have prominent oil cells in the leaves, wood and fruit. These oils are mostly aromatic, hence provide a number of flavoring materials and spices.

Among the more prominent species in the family, cinnamon, derived from the bark of the Asiatic species, *Cinnamomum zeylanicum*, is possibly the most widely utilized botanical relative of the avocado. This ancient spice was used in Asia long before it became known in Europe. It is chiefly produced in Ceylon and to a lesser extent in India, Malaya and tropical America. The "quills" of commerce are sections of the inner bark which are dried and scraped free of the epidermis. The Chinese cinnamon or Cassia is an essence distilled from the bark of *Cinnamomum cassia*. Saigon cassia and Batavia cassia are perfumery oils derived from other species of the genus.

Many other edible products from the family Lauraceae are derived from those species which provide teas and flavored drinks. Sassafras tea, a semi-medicinal preparation with several alleged curative properties, has been a home remedy used for many years by rural persons of the Eastern United States. The flavoring derived from the distillation of bark and chipped wood of *Sassafras albidum*, native to east central United States, is widely used in carbonated beverages and dentifrices. The bark of this species is dried for extraction of the tea. Safrole, used in flavors and medicinals, is derived from the roots of this plant.

The culinary flavoring "bay leaf" is obtained from several sources but the generally accepted type is that of the widely planted Grecian laurel, *Laurus nobilis*. This ornamental plant, known from ancient times as a symbol of "achievement" and "highest honor," was prominent among the ancient Greeks, who honored their heroes and victors of the Pythian games and as a mark of distinction for certain offices by bestowing a garland consisting of laurel branches. A crown of laurel was used to indicate academic honors. The word "laureate," such as in poet laureate, indicates "crowned or decked with laurel as a mark of honor, hence distinguished, worthy of honor especially for poetic excellence."

The leaves of *Laurus nobilis* are dried for use in the culinary arts. The native California bay, *Umbellularia californica*, commonly found in the Sierra foothill valleys and coastal mountains, has a long, highly aromatic leaf with a strong pungent odor and is frequently substituted for the "true bay" but probably is not as widely accepted for culinary

purposes.

The many attractive wooden utensils, ornaments and small art objects made from the famous "Oregon myrtle" are actually products of the California bay, *Umbellularia californica*. This small to medium large tree is a native of the California lowlands extending from the coastal valleys up to the stream beds of the foothills and lower mountains. The larger specimens of this comparatively fast growing species provide an excellent wood for turning from which the beautiful salad bowls, candlesticks, and some carved figures are made. The use of the name "myrtle" is somewhat misleading as this species is a member of the family Lauraceae and in no manner is related to any myrtles of common usage. The fine grained wood, frequently with delicate curling of the grain in materials taken at the soil level, works well particularly on a lathe and polishes with a resulting fine lustre.

Camphor is an essence known to the ancients in the Orient and in the Western world since 600 B.C. The white crystalline substance, which is solid at ordinary temperatures, is derived from the wood of *Cinnamcum camphora*, which is native to Formosa, China and Japan. This species is found frequently as a street tree in southern California.

Perhaps the most famous botanical relative of avocado is the "Rain tree of Hierro." This "Holy tree" or "Garoe" is one of the "Tibs," a species of laurel of the Canary Islands, known to and recorded by Pliny in his accounts of the visits by Roman navigators about 25 B.C. While the tree is not now recorded in Hierro of the Canary Islands, it is still plentiful on Tenerife. The species *Oreodaphne foetens*, which was early mistaken for an oak tree because of the similarity of the fruit, was noted by the Spanish to cause precipitation of water from the heavily moist clouds sufficiently to provide a water supply under its canopy for a number of people in an otherwise barren countryside. "The Canary Rain-tree was well known and an object of considerable interest to the botanists of the early 17th century ... a picture of the plant formed the frontispiece of Baukin and Cherler's *Historia Plantarum Generalis* (1619)." "This wonderful tree was blown down in a storm in 1612" but its fame was widespread and the remains of the water tanks at its foot existed for a period.

The wood of *Persea americana* (avocado) is not considered of great value among the timbers of the world, but it is utilized on occasion for small construction and the production of small wooden utensils and ornaments. Other genera in the family, however, do provide commercial timbers of considerable value. *Persea indica* from the Canary Islands is regularly utilized there as a local source of building material as the comparatively large size trees in dense forests provide a long, straight trunk which can be processed into lumber.

Possibly the most well known timber tree in the laurel family is *Octoea bullala* or stinkwood of South Africa. This exceedingly attractive dark wood has almost disappeared as a species as the result of its wide use in earlier days for ship, furniture and other construction. Very attractive and choice pieces of furniture were and are still the prized possession of old line families and early settlers in South Africa. The freshly harvested wood of this species has a disagreeable odor, hence the vernacular name stinkwood. The cured, processed timber is dark in color, fine grained and takes an exceedingly fine polish. The durability of stinkwood is outstanding, hence many old chests, tables and other fine furniture are still found in good condition after hundreds of

years of use in some instances. Today only small items such as small bowls, napkin rings and other souvenirs are available as token of this lovely wood. Larger pieces of furniture are exceedingly expensive and practically unavailable. The remaining segment of forest of this formerly widely grown species is presently under very strict control. The national stinkwood forest at Knsyna in Cape Province is a major tourist attraction in that beautiful part of the world.

Other lauraceous woods in various parts of the world are used locally for construction and fine cabinet works.

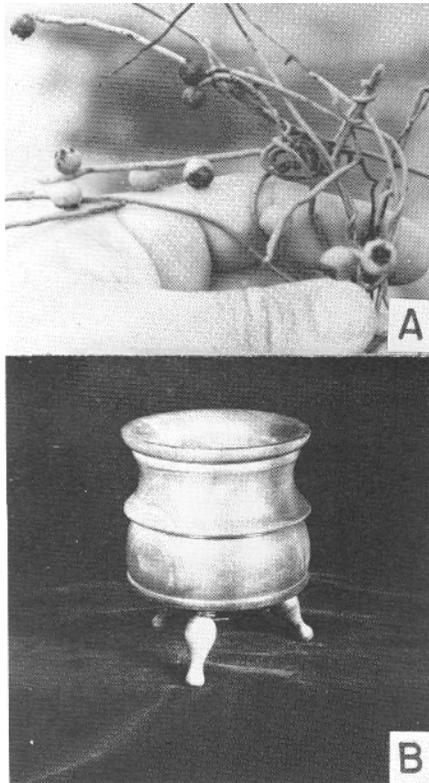


Figure 1. A—Branches and fruit of the avocado botanical relative *Cassytha filiformis*, a vine. This plant has no leaves and is a parasite on other green plants. This particular specimen was photographed on the island of Maritius. B—Small bowl made from the famous stinkwood *Ocotea bullata* from South Africa.



Figure 2—Illustration of "Rain tree" from Claude Duret *Histoire admirables des plantes et herbes* (1605).

An important tree of the Guianas and West Indies is the "Green-heart" (*Nectandra rodioei*) which has a hard, heavy, greenish-brown wood, cold to the touch. It is used for piles, wharves and other heavy construction.

The "White Sycamore" (*Cryptocarya obovata*) of New South Wales and Queensland areas of Australia is a bushy-headed tree with a hard, heavy, close-grained timber.

Ecuadorian paracar is a pale reddish-brown construction wood obtained from *Persea sericea*. A Chilean species, *Persea lingue*, provides a golden brown wood used for furniture and interior trim. The bark of this species is utilized for tanning leather.

*Persea borbonia*, the Bull Bay from southern United States, attains a diameter of 3 feet. Its bright red wood is sometimes used for interior construction and cabinet work. Another species from the same region, *Sassafras albidum*, provides timbers which are resistant to marine conditions.

A most renowned timber tree of Borneo is *Eusideroxylon zwageri* ("billian") which has a heavy brown wood, twice as strong as teak. It is utilized for roofing shingles, water troughs and heavy structural work. The Chinese use this species as a coffin wood.

The "spicy cedar" of Liberia and Nigeria (*Tylostemon mannii*) has a golden brown, fine textured, hard and heavy wood used for furniture, doors and boats.

The only botanical relative of avocado which has no leaves and which has evolved as a parasitic vine is the woe-vine *Cassytha filiformis*. This plant resembles the common dodder (*Cuscuta spp.*) and can be distinguished from the latter only when the very minute flowers or small fruits are available (Figure 1-A). *Cassytha* is a vine which is found commonly in most tropical areas, particularly along coastal areas. The long orange colored wire-line stems, which are approximately 1/16 inch in diameter, will frequently envelop small plants or will be attached to a plant and the "exploring" tips will spread over the bare soil or a rock. Thick mats of this plant in a treetop will support the weight of a man. The plant itself has no leaves or chlorophyll, hence is a parasite on other plants. The small flowers Vs" long give rise to a small drupaceous fruit about %" in diameter. A tea can be made from the dried shoots. The common dodder found frequently in California and northern Mexico is a member of the Convolvulaceae, the morning-glory family. This species, found as a yellow-orange mat on many native plants and occasionally on introduced plant species, is a parasite adapted to a more temperate climatic condition but with the same physical appearance as *Cassytha*, which is restricted to more tropical environments.

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