

NOTES ON PLANT FAMILIES

Knowing which family a plant belongs to will not change your liking for its flowers, or how it grows. But the more you get involved with plants the more intriguing they become and the more you will want to know. For example, whether you are dealing with a plant in the legume family (now the Fabaceae) with possible soil nitrogen-fixing properties, or a Bombacaceae (now the Malvaceae) species that might yield useful seed products may be of interest. Whatever your interest, having an idea of which family a tree belongs to will speed up its identification.

Recorded plant classification goes back to Aristotle, but has been scientifically structured only since Linnaeus's work in the 1730s. Classifications have evolved continuously from that time and particularly since the development of molecular science and especially the structure of DNA in the early 1950s. Given the diversity and intricacy of plant groups and the continuing refinements, it is no surprise that plant families and their evolution are a bit of a mystery tour, but don't be discouraged.

Of more practical importance to plant growers is that some species have both female and male flowers on a single plant (called monoecious), while others will only bear either female, or male flowers (dioecious). Thus, if you want to breed a species you need to ensure that you have both male and female plants in your collection. Plant sexuality is not directly related to the classification of families, but as you might expect there are links. Plants that use wind dispersion for their fruit are more likely to have smaller and lighter fruits and both male and female flowers on the same plant. Conversely, plant distributing their seeds or fruit using animal transporters are likely to have heavier, more edible, or sticky fruit that will have a reasonable chance that their seed will grow up close to one of a different sex where successful pollination is likely.

The Trees for Zambia website includes trees from the following 18 families with their diagnostic characteristics and genera in this booklet:

PLANT FAMILIES IN THIS BOOKLET

Family	Characteristics	Examples
	Milky watery latex	
Anacardiaceae (Mango)	Diverse, often watery latex. Imparipinnate, opposite or alternate	Sclerocarya Ozoroa
Apocynaceae (Oleander)	Watery latex, alternate or whorled	Diplorhynchus Holarrhena
Burseraceae (Myrrh)	Milky latex, aromatic, pinnate or trifoliate	Commiphora
Clusiaceae (Mangosteen)	Yellow/orange latex, leaves opposite of whorled	Garcinia Hypericum
Euphorbiaceae (Euphorbia)	Milky latex and toothed leaf margins	Bridelia Croton Drypetes Uapaca
Moraceae (Fig)	Milky latex, alternate	Ficus

Sapotaceae (Milkwood)	Milky latex, simple, alternate	Englerophytum Mimusops
	Leaves aromatic when crushed	
Annonaceae (Custard apple)	Simple aromatic leaves	Hexalobus Xylopi
Burseraceae (Myrrh)	Strongly aromatic when leaves when crushed	Commiphora
Pittosporaceae (Cheesewood)	Resinous aroma with crushed leaves	Pittosporum
Rutaceae (Citrus)	Citrus aroma when crushed leaves imparipinnate and opposite	Fagaropsis
Verbanaceae (Verbena).	Aromatic leaves when crushed, palmate whorled	Clerodendrum Duranta Lantana Vitex
	PALMS	
Arecaceae (Palms)		Borassus ,Hyphaene Phoenix, Raphia
	Leaves simple and opposite	
Combretaceae (Combretum)	Entire alternate or opposite	Combretum Pтелиopsis Terminalia
Ebanaceae (Ebony)	Leathery alternate or opposite leaves	Diospyros
Loganiaceae (Wild Elder)	Simple, whorled or opposite	Strychnos Anthocleista Nuxia
Myrtaceae (Guava)	Simple, opposite entire	Syzygium
Ochnaceae	Simple whorled	Ochna
Phyllanthaceae Phyllanthus	Simple leaves	Bridelia
Rhamnaceae	Simple opposite thorny	Berchemia
Rubiaceae (Coffee)	Opposite with interpetiolar stipules	Breomnadia Canthium Feretia Gardenia Pavetta Vangueria Vangueriopsis Rothmannia
	Leaves simple and alternate	
Boraginaceae (Foget-me-not)	Simple alternate rough texture	Cordia Ehretia
Chrysobalanaceae (Coco)	Simple opposite	Parinari

Fabaceae (Pea)	Alternate, imparipinnate, or 3 foliate, thickened petiole, pea flower	Afzelia Albizia Amblygonocarpus Baikiaea Baphia Bauhinia Bobgunnia Bolusanthus Brachystegia Burkea Cassia Colophospermum Cordyla Craibia Cryptosepalum Dalbergia Dichrostachys Delonix Elephantorrhiza Entada Erythrina Erythrophleum Faidherbia Guibourtia Indigofera Isoberlinia Julbernardia Newtonia Parkia Peltophorum Pericopsis Philanoptera Piliostigma Pterocarpus Senegalia Senna Tamarindus Vachellia Xeroderris
Malvaceae (Hibiscus).	Simple, alternate, 3 veins from the base	Azanza Hibiscus
Meliaceae (Mahogany)	Diverse, alternate, simple or pinnate	Entandrophragma Khaya Trichilia Turraea
Salicaceae (Willow)	Alternate, toothed, narrow riverine and thicket	Flaucourtia Oncoba Salix
Ulmaceae (Elm)	Simple alternate toothed	Trema
Compound Leaves		
Bignoniaceae (Jacaranda)	Pinnate opposite or whorled and large flowers	Kigelia Markhamia Stereospermum Tecomaria Jacaranda
Meliantaceae (White Ash)	Alternate, pinnate with interpetiolar stipules	Bersama
Sapindaceae (Lichi)	Tri- foliate, paripinnate or imparipinnate	Allophylus Dodonaea Zanha

As a general point of information our old favourites the Acacias, have now been reclassified (not to everyone's satisfaction, but so be it). Most of Zambia's Acacias are now in the genus *Vachellia*, with a few (for example: *Acacia polyacantha* and *A. nigrescens*) now in the genus *Senegalia*. The Flora of Zambia and Flora of Zimbabwe websites still uses the Acacia nomenclature, so the choice is yours.