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PLANTS PEOPLE
POSSIBILITIES



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Since 2004, there has been a Namibian SEPASAL team, based at the National Botanical Research Institute of the Ministry of Agriculture which has been updating the information on Namibian species from Namibian and southern African literature and unpublished sources. By August 2007, over 700 Namibian species had been updated.

Work on updating species information, and adding new species to the database, is ongoing. It may be worth visiting the web site and querying the database to obtain the latest information for this species.

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 *Display help*In names list include: synonyms vernacular names and display: 10 names per page*Your query found 1 taxon***Baikiaea plurijuga Harms [1355]**

Family: LEGUMINOSAE-CAESALPINIOIDEAE

Synonyms

None recorded

Vernacular names

Afrikaans	Rhodesiese kiaat [5097]
Afrikaans (Namibia)	Rhodesiese teak [5087], rhodesie teak [1304], rhodesiese kiaat [5098], zambezikiaat [5098]
Afrikaans (Southern Africa)	Zambezi-kiaat [5082]
Barakwengo-Bushmen (Namibia)	gwáá [5087]
English	African teak [2255], Rhodesian teak [1340], Zambesi redwood [1340], Zambezi redwood [5169], Zambezi teak [5169]
English (Botswana)	Rhodesian teak [5093], Zambezi redwood [5093], wild teak [5093]
English (Namibia)	Rhodesian teak [5087], Zambezi teak [5083] [5088] [5111] [5121], rhodesian teak [1304] [5098], zambezi red-wood [1304]
English (Southern Africa)	Zambezi teak [2795] [5082], Zimbabwe teak [2795]
Gciriku (Namibia)	uhahe [5087] [5098]
Herero (Namibia)	omoro [5098], omuzumba [5083] [5098]
Himba (Namibia)	omoro [5083] [5087], omuyumba [5087]
Jul'hoan (Namibia)	g!oa [5083], g!òá [5088], !gwa [5083]
Kalanga (Zimbabwe)	mutondo [1340]
Kung Bushmen (Namibia)	!gwa [5087], g!òá [5098]
Kwangali	ohahge [1340]
Kwangali (Namibia)	uhahe [5087] [5098] [5121]
Kwanyama (Namibia)	omipapa [1304], omupapa [1304] [5083] [5087] [5098] [5121]
Kxoe	gwaa [5083]
Kxoe (Namibia)	goa [5083], gwaa [5083]
Lozi	mukushi [1340], mukusi [1340] [5167] [5168], mukuswi [1340]
Lozi (Namibia)	mikusi [5083], mukushi [5087], mukusi [5083] [5087] [5121]
Lunda	mukushi [1340]
Luvale	mukushi [1340]
Mbukushu	ohahge [1340]
Mbukushu (Namibia)	ghukuthi [5083] [5087], mukuthi [5087] [5098]

Ndebele	umgonde [1340], umgusi [1340], umgusu [1340], umkusu [1340], umkuswi [1340]
Ndonga (Namibia)	omupapa [5083] [5087] [5098] [5121]
Nkolonkadhi (Namibia)	omukalati [5083] [5087]
Nkumbi (Angola)	mohahe [5087], muyumba [5087]
Norekau Bushmen (Namibia)	! gwã [5087], !gwa [5083]
Punguvlei (Namibia)	!goa [5111]
Rotse	mukushi [1340], mukusi [1340]
Rumanyo (Namibia)	uhahe [5083] [5121]
SeTswana (Botswana)	mokusi [5093], ukuthi [5093]
Shambyu (Namibia)	uhahe [5087]
Thimbukushu (Namibia)	mbambarakuthi [fruit] [5083], mbarakuthi [fruit] [5083], mukutji [5121]
Tjimba (Namibia)	omuyumba [5087]
Trade name	Rhodesian chestnut [1582] [2255], Rhodesian redwood [5167], Rhodesian teak [5167]
Unknown (Angola)	mPapa [5167]
Unknown (Zimbabwe)	iGusi [5167], iKusi [5167], mKusi [5167]
Vasekele (Namibia)	!goa [5111]

Distribution

Plant origin	Continent	Region	Botanical country
Native	Africa	East Tropical Africa	Tanzania [5097]
		South Tropical Africa	Angola [5167] [5168] [5169], Zambia [1582] [5097] [5167] [5168] [5169], Zimbabwe [1582] [2795] [5097] [5167] [5168] [5169]
		Southern Africa	Botswana [1582] [2795] [5097] [5104] [5168] [5169], Namibia s.l. [2795] [5097] [5104] [5167] [5168] [5169]

Descriptors

Category	Descriptors and states
DESCRIPTION	Can be Coppiced [5168] [5169]; Deciduous [2795] [5121] [5168]; Erect [2255]; Moderate Growth Rate [5097]; Terrestrial [2255]; Shrub [1582] [2255]; Semi-evergreen/Semi-deciduous [5097]; Slow Growth Rate [5111]; Tree [1304] [5082] [5088] [5097] [5098] [5101] [5104] [5111] [5121] [5168]; Perennial [5104]; Unarmed - unspecified parts; Plant Height 3-25 m [1304] [5082] [5097] [5098] [5101] [5104] [5111] [5168]
CLIMATE	Not Frost Tolerant [5097]; Annual Rainfall 350-1000 mm [5106] [5121]
SOILS	Deep [1582] [5088] [5168]; Well Drained [5168]; Saline [2255]; Sandy [1582] [5082] [5088] [5097] [5121] [5168] [5169]; Dry [5082] [5088]
HABITAT	Lowland [5168] [5169]; Forest [5168]; Woodland [1304] [1582] [2795] [5082] [5101] [5168]; Dominant within Stands of Natural Vegetation [5097] [5121] [5168] [5169]; Grassland/Forb-Land [5169]; Hillsides/Slopes [5121]; Dunes [5121]; Fixed Dunes [5121]; Watercourses [5121]; Non-Permanent Watercourses [5121]; Plains [5121]; Altitude 850-1150 m a.s.l. [5104]

PHYSIOLOGY	Root Nodules Absent [144] [2255]; Resistant to Insect Pests [1340] [2255] [5097]; Drought Tolerant [5097]
WOOD PROPERTIES	Heartwood Brown/Shades of Brown [2795] [5082] [5097] [5167]; Finish - Good [5097]; Polishing Finish - Good [2255]; Resistant to Wood Staining Fungi [1340] [2255]; Wood Resistant to Termites [2255] [5097]; Heartwood Red/Shades of Red [2795] [5082] [5097]; Durable [1582] [2795] [5082] [5168]; Workability - Difficult [5168]; Blunting Effect - Severe [2255]; Heartwood Other Colour [5167]
PRODUCTION AND VALUE	Commercial Value [5097] [5168] [5169]; Traded Within a Country [5168]; Traded Internationally (Single Continent) [2795] [5082] [5097] [5168]; Used in Construction Industry [5168]; Recommended for Cultivation [5097]
SOURCES OF PLANTING MATERIAL	RBG Kew Seed Bank
CONSERVATION	IUCN Status - Lower Risk, Least Concern (LC) [5169]
FURTHER DATA SOURCES	Dot Distribution Map [5093] [5121]; Additional References [1147] [5164] [5165] [5353] [5354] [5355] [5356] [5357] [5358]; Regional Distribution Map [5082] [5097] [5168]; Botanical Photograph [3045] [5097] [5168]; Vegetation Map [1582] [5166] [5168]; Habit Illustration/Photograph [5097]; Use Related Illustration/Photograph [2795] [5088] [5168]
SEPASAL DATASHEET STATUS	All Data Transferred from SEPASAL Paper Files [2255]; Nomenclature Checked
CHEMICAL ANALYSES	Laboratory Tested Biological Activity - other parts [1340]; Tannins - other parts [1340]; Other Analyses - unspecified parts [5167]

Uses

Major use	Use group	Specific uses
ANIMAL FOOD	Bark	stem bark, goats [1304] [5087]
	Aerial Parts	plumules, rodents, grazing [5168]
MATERIALS	Wood	railway sleepers [1340] [2795] [5082] [5097] [5168]; agricultural tools [1304] [5087]; fences [1304] [5097] [5121]; furniture [1304] [2795] [5082] [5097] [5098] [5111] [5118] [5121]; huts [1304] [5121]; stems, axe handles [1304] [5121]; stems, tool handles [1304]; other wood materials, mortars [1304]; timber, furniture [1304] [5168]; timber, train carriages [1304]; buildings [1304]; timber, bridges [5097]; timber, door frames [5097]; timber, window frames [5097]; timber, joinery [5097]; trunks, musical instruments [1304] [5087]; timber, doors [5097]; timber, parquet floors [1340] [5097] [5168]; wood, mines [1340]; timber, floors [2795] [5082] [5169]; timber [1582] [2795] [5097] [5121] [5168]; timber, canoes [5168]; poles (from wood), buildings [5168]; wood, dugout canoes [5097] [5118]; wood, chairs [5097]; wood, tables [5097]; wood, buildings [1304]; wood, tool handles [5121]; beams/scantlings [5097]; wood, carved wood, snuff boxes [1304]
	Tannins/Dyestuffs	bark, tannins, red [5097]; wood, tannins, red [1340]; tannins [5168] [5169]
	Other Materials/Chemicals	seeds, beads, personal items [5088]; seeds, ornaments [5121]
FUELS	Fuelwood	other fuel qualities [5097] [5111]; cooking fuel [5168]
MEDICINES	Digestive System Disorders	sap, humans, stomach [5121]
	Infections/Infestations	humans, syphilis [554] [1304] [5098]; exudates, rabies [1304] [5098]; bark, humans, syphilis [5168]

	Inflammation	humans, eyes [554] [1304]
	Nutritional Disorders	bark, humans, tonic [5168]
	Pain	bark, humans, teeth [5088]
	Sensory System Disorders	humans, eyes [554] [1304] [5098]; sap, humans, eyes, ointments [5121]
ENVIRONMENTAL USES [1582] [5118] [5121]	Shade/Shelter	
	Ornamentals	bark [5097]; leaves [5097]; flowers [5097] [5121]; live plant in situ, gardens [5097]; live plant in situ, parks [5097]

Picture

None recorded

Notes

DISTRIBUTION

Angola:

South [5167] .

Botswana:

North [5093] .

Namibia:

North and northeast [5121] [5167] .

Southern Africa:

It is the dominant tree occurring on the deep aeolian sand deposits from the Kalahari which covered extensive areas of western Zimbabwe, northern Botswana and southern Zambia during the Pleistocene [1582] .

Zambia:

Zambesi teak forest formerly covered almost all of the Western Province, the northwestern Province and the western area of the Southern Province [5169] .

Zimbabwe:

West [5082] .

RARITY/CONSERVATION

Botswana:

Forest reserves contain *B. plurijuga* [5169] .

Conservation:

It is considered to be a priority for in situ conservation by FAO, 1984 [5169] .

Exploited for timber. The *Baikiaea* thickets that grow on grassland are still fairly widespread and timber from these thickets can be utilised [5169] .

Namibia:

Protected by the Forestry Ordinance [5121] .

Namibia:

Threatened by overexploitation for timber, fencing and hut construction, as well as by clearing for homesteads and fields [5121] .

Not locally exploited for its wood because it is too hard to cut [5169] .

Zambia:

Has protected areas system consisting of national parks and game management areas [5168] .

Zambia:

In situ conservation stands have been established [5169] .

Zambia:

In the mid-70's FAO/UNEP assisted the Forestry Department of Zambia in demarcation and establishment of two botanical reserves for the in situ conservation of the species [1166] [5168] .

Zambia:

There has been a considerable loss of baikiaea forests due to clearing for agriculture [5168] .

DESCRIPTION

A tree with a dense, spreading, much branched crown [2795] [5097] [5168] .

Bark:

Grey on young branches and densely covered with hairs but grey-brown and vertically fissured and cracked on older branches and stems [5097] .

Bark:

Grey to dark brown [5121] [5168] .

Bark:

Smoothish and pale in young specimens [5082] [5168] .

Flowers:

Flower buds and sepals are densely covered with brown hairs [5097] .

Flowers:

Pinkish mauve with crickly edges, up to 30 mm long [5082] [5097] [5168] .

Fruits:

Beaked pod, with the widest part near the tip or tapering to the bottom, covered with dark, velvety hairs [5097] [5168] .

Fruits:

Contain few seeds [5098] .

Fruits:

Flat woody pod [2795] [5082] [5097] [5121] .

Fruits:

The pods are greenish brown and velvety [5111] .

Fruits:

The seed pods are approximately 10-15 cm long [5088] [5098] [5168] .

Inflorescences:

Up to 35 cm long [1304] [5082] [5121] .

Leaflets:

Oblong to elliptic, 3.5-7 x 2-2.5 cm [5168] .

Leaves:

Compound, up to 140 mm long, dark green above, pale green below [5121] .

Leaves:

Paripinnate [5082] [5098] [5101] .

Leaves:

Pinnate [1304] .

Lifeform, Namibia:

Mostly a tree, but many shrubby forms due to frequent fires, especially in Kavango Region [5121] .

Lifeform:

The species is found as a tree in woodland and as a shrub in scrub [1582] [2255] .

Petals:

Pale pink, mauve or magenta and up to 30 x 25mm, with crisped edges and with hairs along the midrib [5097] .

Roots:

It has a non-aggressive root system [5097] .

Wood:

Dark red-brown [5082] .

ANIMAL FOOD - BARK

Stem bark, goats:

After the trees are felled, the bark is stripped off and fed to goats [1304] .

ANIMAL FOOD - AERIAL PARTS

Plumules, rodents, grazing:

Seedlings are grazed by duikers and rodents [5168] .

MATERIALS

Wood properties:

Heartwood hard, fine-grained, dark reddish brown [2795] [5097] .

Wood properties:

Basic specific gravity 0.58-0.78 g per cubic centimeter [5167] .

Wood properties:

Heartwood copper or orange brown, with streaks [5167] .

Wood properties:

It makes beautiful, heavy furniture with a smooth finish [5097] .

Wood properties:

Sapwood colour distinct from heartwood colour [5167] .

Wood properties:

Seasoned wood density of 900 kg per cubic meter [1582] [2255] .

Wood properties:

The timber is resistant to fungal decay and to the wood-destroying insects (Great Britain 1950, King et al. 1950) [1340] .

Wood properties:

The wood can withstand abrasion without splintering [2795] [5082] .

Wood properties:

The wood is borer resistant [5097] .

Wood properties:

The wood is dark red-brown and slow drying [5168] .

Wood properties:

The wood is difficult to work and dulling of tool edges is common but finished product takes high polish and its reddish brown lustre is attractive [2255] .

Wood properties:

The wood is even-textured, hard, strong and durable [5082] [5168] .

Wood properties:

The wood is hard [2795] [5088] [5168] .

Wood properties:

The wood is heavy and durable [2795] [5168] .

Wood properties:

The wood is resistant to fungi, termites and borers [1582] [2255] .

MATERIALS - WOOD

Agricultural tools:

The wood is used for manufacturing plowshares [1304] .

Dug-out canoes:

The plant is popular for making dug-out canoes along the Zambezi in the Caprivi and Zambia [5097] [5118] .

Flooring:

The most popular wood for parquet floors in Southern Africa and abroad [5097] .

Furniture, wood:

The wood is too heavy and thus has a limited application in the manufacture of furniture (Pardy 1951) [1340] .

Furniture:

It makes a valuable wood for furniture [2795] [5082] [5098] [5118] [5121] [5168] .

Mortars, heartwood:

The heartwood from large trees is used to make stamping blocks (mortar) [1304] .

Huts, fences:

Kraal fences and huts are made from smaller limbs of larger forest trees [1304] .

Sleepers, parquet, mining:

The wood is valuable for sleepers, parquet and mining timber (Pardy 1951) [1340] [5168] .

Tool handles, stems:

Handles for hoes, axes and rakes are made from the stems [1304] .

Door frames, window frames, timber:

The wood is used as a timber in the building trade for window and door frames and for doors [5097] .

Furniture, timber:

The wood is considered a quality lumber which is used for furniture for government offices, hospitals and schools throughout Ovamboland [1304] .

Beams, timber:

The wood is used as a timber in the building trade for beams [5097] .

Timber:

Produce one of the world's finest commercial timbers [5168] .

Timber:

This is one of the most important timber trees of southern Africa [2795] [5097] .

Train carriages:

Lumber is used for railway cars [1304] .

Musical instruments, trunks:

Drums are made from the trunks [1304] [5087] .

MATERIALS - TANNINS/DYESTUFFS

Tannins, red, bark:

The bark is used for tanning leather, giving it a reddish colour [5097] .

Tannins, red, wood:

An extract from the wood, containing 65% of tannin, has proved satisfactory in tanning leather, the product having a marked reddish colour (Great Britain 1950) [1340] .

MATERIALS - OTHER MATERIALS/CHEMICALS

Seeds, personal adornments:

The large, shiny brown seeds are combined with ostrich eggshell beads and other seeds like those of *Entada arenaria* as adornments [5088] .

FUELS - FUELWOOD

Cooking fuel:

Local people in the Baikiaea forest region of Zambia mainly depend on firewood for cooking and *B. plurijuga* is the preferred species for this purpose [5168] .

Firewood:

The Vasekele use the dead trees for firewood. It gives a long lasting fire producing little ash [5111] .

It makes a good fuel, producing very hot coals [5097] .

FUELS - CHARCOAL

Zambia:

Increased levels of charcoal production occur, though charcoal making is prohibited in the western province according to the Barotse Royal Establishment of the Lozi [5168] .

MEDICINES - DIGESTIVE SYSTEM DISORDERS

Sap, humans, stomach:

The sap is used for upset stomach [5121] .

MEDICINES - INFECTIONS/INFESTATIONS

Exudates, humans, rabies:

Gum and resin secreted from the tree is a remedy against rabies [1304] [5087] [5098] .

Humans, syphilis:

The plant is said to be a cure for syphilis [554] [1304] [5098] .

MEDICINES - NUTRITIONAL DISORDERS

Bark, humans, tonic:

The bark is used for making a fortifying tonic [5168] .

MEDICINES - PAIN

Bark, humans, teeth:

Gargling an infusion of the bark relieves toothache [5088] .

MEDICINES - SENSORY SYSTEM DISORDERS

Humans, eyes:

The plant is a cure for eye afflictions [554] [1304] [5098] .

ENVIRONMENTAL USES - SHADE/SHELTER

The tree serves as sheltering area for herbivores [1582] [5118] .

ENVIRONMENTAL USES - ORNAMENTALS

It is a tree for the larger garden and ideal for a park. The grey stems, dark green leaves, pinkish flowers and dark brown pods make this a very decorative tree [5097] .

ANTINUTRITIONAL FACTORS

Unpalatable to animals [1582] [2255] .

TOXICITY/POISONOUS COMPOUNDS

Toxicity:

The sawdust has given negative results in toxicity feeding tests in cattle and sheep (Northern Rhodesia 1931) [1340] .

BIOLOGICAL ACTIVITY

Preliminary tests of the water soluble and alcohol soluble extractives of the wood indicate that they are not appreciably toxic to wood-destroying fungi in culture (Great Britain 1950) [1340] .

CHEMICAL ANALYSES - MISCELLANEOUS

Has crystals, prismatic, located in axial parenchyma cells [5167] .

Leaves, twigs:

Dry season - ash 2.3%; crude protein 20.4%; ether extract 2.9%; crude fibre 28.7%; nitrogen free extract 45.7%; calcium 0.28%; magnesium 0.13%; potassium 0.93%; phosphorus 0.15% [1582] .

Leaves, twigs:

Wet season - ash 2.6%; crude protein 21.0%; ether extract 3.2%; crude fibre 40.0%; nitrogen free extract 33.2% [1582] .

Stems:

Ash 2.5%; crude protein 8.3%; ether protein 2.7%; crude fibre 49.5; nitrogen free extract 37.0%; calcium 1.30%; magnesium 0.19%; potassium 0.66%; phosphorus 0.12 [1582] .

Wood, amino acids:

The amino acid baikianin (Curruthers et al. 1953, Dragendorff 1898, Great Britain 1950, King et al. 1950) is present chiefly in the water soluble fraction (King et al. 1950). It is L-1:2:3:6-tetrahydropyridine-2. carboxylic acid (Dobson et al. 1958, King et al. 1950) which exist in l- and d-forms [1340] .

Wood, tannins:

The wood contains 17 to 20% of extractives of which tannins and phlobaphenes comprise the greater part (Great Britain, 1950) [1340] .

CONSTRAINTS - MISCELLANEOUS

On the west bank of Zambezi river, the Baikiaea forest shows little regeneration some 20-40 years after logging [5040] [5168] .

RAINFALL

Namibia:

Grows mostly from about 500 mm upwards, but also occurs just east of Ruacana where rainfall is around 300-350 mm [5106] [5121] .

Restricted to an annual rainfall regime ranging from more than 1000 mm in the north to less than 600 mm in the south [5168] .

Southern Africa:

Rainfall varies from approximately 600-1000 mm [1582] .

TEMPERATURE

Seasonal variation of 1.7-40.6°C [2255] .

TOPOGRAPHY/SITES

Namibia:

Mostly on plains, also dunes and in dry riverbeds [5121] .

SOILS

Namibia:

Found on deep Kalahari sand [2795] [5082] [5088] .

Namibia:

Salty sub-soil [2255] .

Soil type:

Sand fertile from flooding [2255] .

Southern Africa:

Occurs in areas of deep Kalahari sand [5082] [5168] .

Zimbabwe:

Established only on Kalahari sands [144] [2255] .

VEGETATION

Associated with *Entandrophragma caudatum*, *Pterocarpus antunesii* (*P. lucens* subsp. *antunesii*) and *Combretum collinum* [5153] [5169] .

Confined to lowland tropical forest on the Kalahari sands [5169] .

Forest trees [1304] .

Southern Africa:

Dominant in the dry deciduous forest [5168] .

Southern Africa:

It is often the dominant tree species [1718] [5097] [5168] [5169] .

Southern Africa:

It is the dominant tree occurring on the deep aeolian sand deposits from the Kalahari which covered extensive areas of western Zimbabwe, northern Botswana and southern Zambia during the Pleistocene [1582] .

Southern Africa:

The deep sand and relatively high rainfall give rise to a closed woodland [1582] .

Southern Africa:

Usually in open deciduous woodland [2795] [5082] [5097] .

Zambia, forest:

In the Masese-Machili area of Sesheke district, odd patches of Baikiaea dominated scrub are referred to as dwarf-shell forests. They appear to be the outcome of a peculiar drainage complex [5170] .

Zimbabwe:

Found in higher areas of thicket on Kalahari sands of the Lupane and Nkayi districts and in higher areas of woodland thicket on colluvium in the Binga district [5169] .

ENVIRONMENTAL FACTORS - MISCELLANEOUS

Drought:

Can withstand some drought [5097] .

Fire:

Susceptible to severe fires [2255] [5168] [5169] .

POLLINATION

Insect pollinated [5168] .

FLOWERING/FRUITING/SEED SET

Flowering, Namibia:

November to May with a peak in March and April [5121] .

Flowering, Zambia:

December to March with a peak in the middle of the rains (Childes and Walker 1987) [5168] .

Flowering:

December to March [5082] [5097] [5168] .

Flowering:

Does not flower every year and not all trees flower at the same time [5168] .

Flowering:

The flowers appear during November [5111] .

Fruiting, Namibia:

January to October, with a peak from March to May [5121] .

Fruiting:

June to September [5082] [5097] .

Fruiting:

Pods start ripening in April and dehisce in August and September when the relative humidity is low and temperatures increase [5168] .

Seed set:

The seeds are ripe from September onwards [5111] .

DISPERSAL

Pod dehiscent - splitting explosively and immediately spiralling and throwing the seeds some distance [5097] [5168] .

Seed pods explode with noise resembling pistol shots [2255] .

GERMINATION

After dispersal seeds remain dormant for several months until sufficient rain has fallen to initiate germination [5168] .

Germination of seeds is not difficult. However, in Florida, Menninger (1967) was unsuccessful in culturing plantlets beyond 15 cm tall [2255] .

Namibia:

The seeds germinate easily without any treatment. A germination rate of 96% was noted in the nursery of the Forestry Research Station in 1996 [5111] .

Seeds usually take 7-25 days to germinate [5097] .

SEEDLING DEVELOPMENT

Well adapted to dry sites on free-draining sandy soils the tap roots of the seedlings rapidly penetrate downwards in order to reach soil depth levels which are moist during the dry season, and to avoid competition with roots of the undergrowth (Högberg, 1986) [5168] .

VEGETATIVE GROWTH

Growth rate:

Has a growth rate of 500-700 mm per year [5097] .

Growth rate:

It has a moderate growth rate, 500-700 mm per year [5097] .

Growth rate:

The tree grows very slowly [5111] .

NITROGEN FIXATION/NODULATION

The plant lacked root nodules in Zimbabwe [144] [2255] .

PHYSIOLOGICAL TOLERANCES

Drought tolerance:

Can withstand some drought [5097] .

Frost tolerance:

It is frost-sensitive [5097] .

CULTIVATION

Not suitable for plantation programme because of its slow growth and fire sensitivity [5169] .

South Africa:

Maputaland and Tongaland are ideal for planting this tree in plantation for the production of hardwood [5097] .

Southern Africa:

It is a tree for the larger garden and ideal for a park. Unfortunately it is not commonly cultivated [5097] .

PROPAGATION FROM SEED

Method:

Seeds must be soaked in hot water and left overnight and swollen seed planted the next morning in a mixture of river sand and compost (2:1). Cover with a thin layer of sand and keep moist, ensuring that the medium never dries out.

Seeds usually take 7-25 days to germinate. When the seedlings reach the 2-leaf stage they must be transplanted into nursery bags into a mixture of river sand and compost (5:1). Has a growth rate of 500-700 mm per year [5097] .

'CROP' MANAGEMENT

Coppicing:

Coppice well [5168] .

YIELDS

Southern Africa:

It is systematically cut on sustained yield basis in Botswana, Caprivi, Zimbabwe and Zambia [5097] .

PRODUCTION

Namibia:

This lovely shade tree with its beautiful flowers has horticultural potential in frost-free areas [5121] .

Timber, Zambia:

There has been a steady decline in the production of mukusi wood due to increased timber production by the timber industry [5168] .

TRADE

Botswana:

It is one of the two major commercial timber species [5169] .

Southern Africa, export:

The wood has been exported in considerable quantities [2795] [5082] [5097] [5168] .

Zambia:

One of the most important high value timber species in western and southern Zambia [5168] .

Zambia:

Sales value over recent years have been around US\$1 million annually, 80% in the domestic market and 20% from exports [5168] [5169] .

PRODUCTION POTENTIAL

Fire is the overriding threat to the remaining Zambezi teak forest [5168] .

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References

- [144] Allen, O.N. and Allen, E.K. 1981. *The Leguminosae. A source book of characteristics, uses and nodulation*. London: Macmillan. En.
- [554] White, F. 1962. *Forest Flora of Northern Rhodesia*. London: Oxford University Press. xxvi, 455p. En.
- [1147] Dragendorff, G. 1898. *Die Heilpflanzen der Verschiedenen Völker und Zeiten*. Stuttgart: Ferdinand Enke. 300p. Ge.
- [1166] FAO. 1977. *Food legume crops: improvement and production*. Rome: Food and Agriculture Organization of the United Nations. vi, 248p. En. FAO Plant production and protection paper 9. Based on lectures delivered at the first FAO/DANIDA training course for Africa and the Near East, held in Iran, May-August 1975.
- [1304] Rodin, R.J. 1985. *The ethnobotany of the Kwanyama Ovambos*. St. Louis, U.S.A.: Missouri Botanical Garden. 163p. En. Monographs in Systematic Botany from the Missouri Botanical Garden Vol. 9.
- [1340] Watt, J.M. and Breyer-Brandwijk, M.G. 1962. *The medicinal and poisonous plants of southern and eastern Africa*. Edinburgh and London: E. and S. Livingstone. ix, 1457p. En. 2nd ed.
- [1355] Lock, J.M. 1989. *Legumes of Africa. A checklist*. Kew, U.K.: Royal Botanic Gardens, Kew. 619p. En.
- [1582] Walker, B.H. 1980. A review of browse and its role in livestock production in Southern Africa. Addis Ababa: International Livestock Centre for Africa. Pp. 7-24. En. Papers presented at the International Symposium on Browse in Africa, Addis Ababa, 8-12 April 1980, and other submissions.
- [1718] White, F. 1983. *The vegetation of Africa. A descriptive memoir to accompany the Unesco/AETFAT/UNSO vegetation map of Africa*. Paris: Unesco. 356p. En. Natural Resources Research 20.
- [2255] SEPASAL.. *Survey of Economic Plants for Arid and Semi-Arid Lands. Notes from SEPASAL datasheet*. Kew, U.K.: Centre for Economic Botany, Royal Botanic Gardens, Kew.
- [2795] Van Wyk, B.-E. and Gericke, N. 2000. *People's plants: a guide to useful plants of Southern Africa*. Pretoria, South Africa: Briza Publications. 351p. En.
- [3045] Van Wyk, B. and Van Wyk, P. 1997. *Field guide to trees of Southern Africa*. Cape Town, South Africa: Struik. 536p. En.
- [5040] Woods W. 1986. Biological control of *Parkinsonia aculeata*. *Journal of agriculture western Australia*. 27(3) 80-83. En.
- [5082] Coates Palgrave, K. 2002. *Trees of Southern Africa*. Cape Town: Struik Publishers. 3rd ed.
- [5083] Craven, P. and Kolberg, H. In prep. *Common names of Namibian plants*. Windhoek.

- [5087] Le Roux, P.J. 1971. The common names and a few uses of the better known indigenous plants of South West Africa. *Department of Forestry Bulletin*. 47: 1-81.
- [5088] Leffers, A. 2003. *Gemsbok bean & Kalahari truffle. Traditional plant use by Jul'hoansi in North-Eastern Namibia*. Windhoek: Gamsberg Macmillan Publishers.
- [5093] Setshogo, M.P. and Venter, F. 2003. *Trees of Botswana: names and distribution. SABONET Report No. 18*. Pretoria: Southern African Botanical Diversity Network.
- [5097] Venter, F. and Venter, J-A. 1996. *Making the most of indigenous trees*. Arcadia, Pretoria: Briza Publications.
- [5098] Von Koenen, E. 2001. *Medicinal, poisonous and edible plants in Namibia*. Windhoek: Klaus Hess Publishers. Edition Namibia, Vol. 4.
- [5101] Giess, W. and Snyman, J.W. 1986. The naming and utilization of plantlife by the Žul'hōasi Bushmen of the Kau-kauveld. Pretoria: University of South Africa. Pp. 237-246.
- [5104] Germishuizen, G. and Meyer, N.L., eds. 2003. *Plants of southern Africa: an annotated checklist*. Strelitzia 14. Pretoria: National Botanical Institute.
- [5106] Mendelsohn, J., Jarvis, A., Roberts, C. and Robertson, T. 2002. *Atlas of Namibia. A portrait of the land and its people*. Cape Town, South Africa: David Philip.
- [5111] Leger, S. 1997. *The hidden gifts of nature. A description of today's use of plants in west Bushmanland (Namibia)*. ed. German Development Service.
- [5118] Ostermeier-Noczil, B. 1997. *Smallholders of northern Namibia. Ethnobotanical case study of the traditional Mbukushu village "Kaké" in the Kavango/Caprivi-region*. Vienna: University of Vienna. Unpublished Diploma thesis.
- [5121] Curtis, B.A. and Mannheimer, C.A. 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute of Namibia. 704p.
- [5153] Curtis, B.A. 2004. *Pers. comm., 7 December 2004*. National Botanical Research Institute: Windhoek.
- [5164] Childes, S. and Walker, B.H. 1987. Ecology and dynamics of the woody vegetation on the Kalahari Sands in Hwange National Park, Zimbabwe. *Vegetatio*. 72: 111-128.
- [5165] Högborg, P. 1986. Rooting habits and mycorrhizas of *Baikiaea plurijuga*. Livingstone, Zambia. Proceedings of the First International Conference on the Teak Forest of Southern Africa, March 1984.
- [5166] Maclean, H.A.M. 1965. *An agricultural stocktaking of Barotseland*. Lusaka: Government printer.
- [5167] Richter, H.G. and Dallwitz, M.J. 2000. *Commercial timbers: descriptions, illustrations, identification, and information retrieval*. Published on the Internet; <http://biodiversity.uno.edu/delta/>. 05/01/2005.
- [5168] Theilade, I., Sekeli, P.M., Hald, S. and Graudal, L. (eds). 2001. *Conservation plan for genetic resources of Zambezi teak (Baikiaea plurijuga) in Zambia. DFSC Case Study No.2*. Humlebaek, Denmark: Danida Forest Seed Centre.
- [5169] UNEP World Conservation Monitoring Centre. 2004. *Global Tree Campaign: Baikiaea plurijuga*. U.K.: http://www.unep-wcmc.org/trees/trade/bai_plu.htm. 05/01/2005.
- [5170] Fanshawe, D.B. and Savory, B.M. 1964. *Baikiaea plurijuga* dwarf-shell forests. *Kirkia*. 4: 185-190.
- [5353] Carruthers, W.R. et al. 1953. Title unknown. *Chem. and Ind. (Rev.)*. 641.
- [5354] Dobson, N.A. et al. 1958. Title unknown. *J. Chem. Soc.* 3642.
- [5355] Great Britain. 1950. Title unknown. *Rep. for. Prod. Res. Bd.* 44.
- [5356] King, F.E. et al. 1950. Title unknown. *J. Chem. Soc.* 3590.
- [5357] Northern Rhodesia. 1931. Title unknown. *Annu. Rep. Dep. Anim. Hlth.*
- [5358] Pardy, A.A. 1951. Title unknown. *Bull. Dep. Agric. S. Rhod.* 1605.

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