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PLANTS PEOPLE  
POSSIBILITIES



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SEPASAL is a database and enquiry service about useful "wild" and semi-domesticated plants of tropical and subtropical drylands, developed and maintained at the Royal Botanic Gardens, Kew. "Useful" includes plants which humans eat, use as medicine, feed to animals, make things from, use as fuel, and many other uses.

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which has been updating the information on Namibian species from Namibian and southern African literature and unpublished sources.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.

## Internet SEPASAL

New query

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 *Display help*In names list include:  synonyms  vernacular names and display: All  names per page*Your query found 5 taxa***Ximenia caffra Sond. [1362]**

Family: OLACACEAE

**Synonyms**

None recorded

**Vernacular names**

Unspecified language	maanyangu [2774]
!Kung Bushmen (Southern Africa)	gui [1171]
Afrikaans (Namibia)	grootsuurpruim [5083], kaffersuurpruim [5087], suurpruim [5098]
Afrikaans (Southern Africa)	groot suurpruim [1171] [5097], suurpruim [3045] [5082]
Bara	maanyangu [2774]
Barabaig (Tanzania)	maanyangu [5054]
Bena	mpingipingi [2774] [5054]
Bende	msantu [2774] [5054]
English	large sourplum [2774] [5054]
English (Botswana)	large sour plum [5092]
English (Namibia)	large sourplum [5083], sour plum [5098]
English (Southern Africa)	large sourplum [1171] [2795], monkey plum [1171], sourplum [2795] [3045] [5082]
English (Zimbabwe)	sourplum [5082]
German (Namibia)	rote Wildpflaume [5083] [5098]
Gogo (Tanzania)	mjingu [5054], mtundwe [5054]
Gorowa (Tanzania)	maanyangumo [2774] [5054]
Hehe (Tanzania)	mtundwa [2774] [5054]
Herero (Namibia)	omumbeke [5083] [5087] [5098], ozoninga [5083]
Herero (Southern Africa)	omumbeke [1171]
Himba (Namibia)	omuninga [5098]
Iraqw (Tanzania)	maanyangu [2774] [5054]
Isanzu (Tanzania)	mtundwi [5054]
Jul'hoan (Namibia)	gloeh [5083] [5088]
Kerewe (Tanzania)	mseaka [5054]
Kung Bushmen (Namibia)	g//oe [5098]
Kwangali (Namibia) [plant]	sipeke [5087] [5098]

Kwangali (Southern Africa)	mpheke [1171]
Kwanyama (Namibia)	oshipeke oshimbyu [5098]
Lovedu (Southern Africa)	mochidi [1171]
Lozi (Namibia)	milutuluha [5083], mulutuluha [5083]
Lozi (Southern Africa)	mulutulua [1171]
Luvale (Southern Africa)	musongosongo [1171]
Maasai (Tanzania)	lama [2774] [5054]
Matengo	mpingipingi [5054]
Mbukushu (Namibia)	hambya [5087] [5098]
Ndebele (Southern Africa)	itsengeni [1171], umtunduluka [1171]
Ndendeule	mbingembinge [5054], mpingipingi [5054]
Ndonga (Namibia)	oshimbyupeke [5087], oshipeke [5087] [5098]
Ndonga (Namibia) [fruit]	ombyupeke [5087]
Ngindo	mpingi [5054]
Ngoni (Tanzania)	bingimbingi [5054], mpingipingi [5054]
Nharo (Namibia)	n??uri [5094]
Northern Sotho (Southern Africa)	morotologa [5097]
Nyamwezi (Tanzania)	mnembwa [2774] [5054], mtundwa [2774] [5054]
Nyaturu (Tanzania)	mutundwe [2774] [5054]
Nyiramba (Tanzania)	mtundwi [2774] [5054]
Oshikwanyama (Namibia)	oipeke oimbyu [5083], oipeke oinenepeke [5083], ombyu [5083]
Oshiwambo (Namibia)	oipeke oimbyu [5083], oipeke oinenepeke [5083], ombyu [5083]
Pedi (Southern Africa)	matshidi [1171], motshidi [1171]
Rangi (Tanzania)	mjingu [2774] [5054], miengu [5054]
Rukwangali (Namibia)	sipeke [5083]
Rumanyo (Namibia)	mopeke [5083]
Sambaa (Tanzania)	mtundui [5054]
Sandawe (Tanzania)	xaya [2774] [5054], wandanda [5054]
SeTswana (Botswana)	meretologa [5083], moretologa [5154], moretologa wa dipudi [5154], moretologa wa kgoma [5154]
Shona (Southern Africa)	itsengeni [1171], musanza [1171], mutengeni [1171], mutengeno [1171], mutenguru [1171], nhengeni [1171], tsvanzva [1171]
Sotho (Southern Africa)	masidi [1171], motshidi [1171]
Swahili (Tanzania)	mpingi [2774] [5054]
Swati (Southern Africa)	umthunduluka [1171]
Thimbukushu (Namibia) [fruit]	hambya [5083], thiambya [5083]
Thonga (Southern Africa)	umtunduku [1171]
Tswana (Botswana)	moretologa-kgomo [5092]
Tswana (Southern Africa)	morokolo [1171], morotologa [1171], pepo [1171], sere-tologakgomo [1171]
Venda (Southern Africa)	mutanzwa [1171]
Zaramo (Tanzania)	muhingi [2774] [5054]
Zigua (Tanzania)	mtundwi [2774] [5054], mhingi [5054]
Zinza (Tanzania)	mseka [5054]
Zulu (Southern Africa)	amanumbilo [1171], amathunduluka [1171], amatimdolubi [1171], umThunduluka-

obomvu [5097], umkolotshane [1171], umthunduluka [1171]

## Distribution

Plant origin	Continent	Region	Botanical country
Native	Africa	East Tropical Africa	Kenya [2774], Tanzania [2774], Uganda
		Northeast Tropical Africa	Ethiopia, Somalia
		South Tropical Africa	Angola, Malawi [2774], Mozambique [2774] [5480], Zambia [5481], Zimbabwe [5419]
		Southern Africa	Botswana [5093] [5104] [5700], Caprivi Strip [5121], Namibia [5121] [5149], Natal [5104], Swaziland [5104] [5452], Transvaal [5104]
		West-Central Tropical Africa	Burundi, Rwanda, Zaire
Western Indian Ocean	Madagascar		

ISO countries: South Africa [2774]

## Descriptors

Category	Descriptors and states
DESCRIPTION	Can be Coppiced [2774]; Erect; Dioecious [2795]; Moderate Growth Rate [5097]; Hemiparasitic [5082]; Terrestrial; Shrub [2774] [5054]; Slow Growth Rate [5092]; Tree [2774] [5054]; Perennial; Thorny/Spiny - stems [5082]; Thorny/Spiny - unspecified parts [2774] [5054]; Aromatic - other parts [5096] [5924]; Plant Height <= 8 m [2774] [5054]
CLIMATE	Not Frost Tolerant [5092]; Frost Tolerant [5097]
SOILS	Boulders/Rocky [1171] [5092] [5097]; Sandy [5092]; Dry [2774]
HABITAT	Lowland [2774]; Woodland [1171] [2774] [5054] [5092] [5097]; Shrubland/Bushland/Scrub [5092]; Wooded Grassland [1171] [2774] [5054] [5097]; Hillsides/Slopes [1171] [2774] [5092] [5097]; Outcrops/Kopjes/Inselbergs [1171] [5097]; Termitaria [2774] [5097]; Rocky Shores [2774]; Altitude 0-2000 m a.s.l. [2774] [5054]
PHYSIOLOGY	Light Demanding [5097]; Drought Tolerant [5097]
WOOD PROPERTIES	Small Sizes of Wood Available Only [5092] [5096]; Heartwood Brown/Shades of Brown [5096]; Workability - Easy [5096]; Finish - Good [5096]; Polishing Finish - Good [5096]; Heartwood Red/Shades of Red [5096]; High Density [5092] [5096]; Sapwood White/Yellow [1340] [5096]
PRODUCTION AND VALUE	Potential Food Uses [2795]; Traded Locally [2795]
SOURCES OF PLANTING MATERIAL	Other Seed Sources [5181]
FURTHER DATA SOURCES	Botanical Illustration [1171] [1340] [5092] [5098]; Additional References [1147] [5123] [5192] [5203] [5311] [5312] [5333] [5429] [5456] [5458] [5914] [5915] [5916] [5917] [5918] [5919] [5920] [5921] [5922] [5923] [5924] [5925]; Regional Distribution Map [3045] [5082] [5097]; Botanical Photograph [2795] [3045] [5082] [5088] [5097]; Databases [5341]; Habit Illustration/Photograph [5082]; Grid Map [5123]

SEPASAL  
DATASHEET  
STATUS

Nomenclature Checked [2963]

CHEMICAL  
ANALYSES

Unspecified Analyses - infructescences [1340]; Unspecified Carbohydrates - infructescences [187]; Unspecified Analyses - seeds [1340]; Unspecified Lipids - seeds [1340] [2795] [5092] [5096] [5097]; Poisonous Compounds - other parts [5098]; Tannins - leaves [1340]; Other Analyses - infructescences [5092]; Proteins - infructescences [187] [5092]; Vitamin B1 (thiamine) - infructescences [187]; Vitamin B2/Vitamin G (riboflavin) - infructescences [187]; Vitamin B7/Vit. P-P (nicotinamide, nicotinic acid) - infructescences [187]; Vitamin C (ascorbic acid) - infructescences [187] [1340] [5092] [5096] [5097]

Uses

Major use

Use group

Specific uses

FOOD	Infructescences	fruits, raw [1171] [5054] [5101]; fruits, dessert fruits [5097]; potable water; fruit juice [1171]; fruit juice, porridges [1171] [5092]; fruits, staple food [5089]; fruits, porridges [5092]; fruit pulp, raw [1171] [2514] [5092] [5098] [5118]; fruit pulp [1171] [1332] [1340] [2795]; fruits, jams/jellies [1340] [3045] [5082] [5092] [5096] [5097]; fruits, raw, snack food [5088]; fruits [1171] [1332] [1340] [2795] [3045] [5092] [5094] [5096] [5097] [5098]; fruits, beverages [5054]
	Seeds	entire seeds [1171] [2795]; kernels [5092]; seed oil [1171] [5118]
ANIMAL FOOD	Fertile Plant Parts	fruits, birds [5097]; fruits, game mammals [5097]; fruits, game mammals, browse [5096]; fruits, primates [2514] [5098]
	Aerial Parts	leaves, game mammals [5097]; leaves, game mammals, browse [5096]
BEE PLANTS [2774]		
MATERIALS	Unspecified Materials	seeds, cosmetics
	Wood	carved wood; poles (from wood) [2774]; wood, tool handles [2774] [5054]; wood, spoons [2774] [5054]; wood, walking sticks [5054]; wood, bows (weapons) [5054]; wood, outbuildings [5054]
	Tannins/Dyestuffs	fruits, tannins [1340]; leaves, tannins [5096]; seeds, tannins [1340] [2795] [3045] [5082] [5092] [5096] [5097]
	Lipids	seeds, oils, lubricants; seeds, non-drying oils, lubricants; seeds, oils, skin cosmetics [1332] [2795]; seeds, non-drying oils, cosmetics [5097]; kernels, non-drying oils [5092]; seeds, non-drying oils, soap [5096]; kernels, hair oil/lacquer [5101]; kernels, non-drying oils, cosmetics [1340] [5082]; seeds, non-drying oils, bows (weapons) [5082] [5092]; seeds, oils, cosmetics [2795] [3045]; seeds, oils [1332] [5098]
FUELS [5054]	Fuelwood	
	Petroleum Substitutes, Alcohols etc.	seeds, lighting fuel [5097]
SOCIAL USES	'Religious' Uses	bark, ritual/religion/magic [1340]; roots, ritual/religion/magic [5082] [5092]
MEDICINES	Unspecified Medicinal Disorders	leaves, humans [2774]; roots, humans [2774]; humans
	Abnormalities	roots, humans, oedemas, oral ingestion [5154]
	Blood System Disorders	roots, humans, other blood system disorders/effects [5054]

Circulatory System Disorders	roots, humans, other circulatory system disorders/effects, oral ingestion [5154]
Digestive System Disorders	leaves, humans, teeth [5054]; leaves, humans, stomachic [5054]; roots, humans, hernia [5054]; roots, humans, purgative [1340] [5098]; roots, humans, intestine, diarrhoea, oral ingestion [2795]; roots, humans, intestine, diarrhoea [1340] [5097] [5098]
Genitourinary System Disorders	roots, humans [5054]; roots, humans, menstruation [5054]; cattle [1340]; roots, humans, aphrodisiac, oral ingestion [2795]; roots, humans, other genitourinary system disorders/effects, oral ingestion [2795]; leaves, humans, other genitourinary system disorders/effects, oral ingestion [2795]; roots, humans, haematuria, oral ingestion [2795]; roots, humans, female infertility, oral ingestion [5154]; roots, humans, other genitourinary system disorders/effects [5054]
Ill-defined Symptoms	roots, humans, dizziness, oral ingestion [5154]
Infections/Infestations	leaves, humans, malaria [5054]; leaves, humans, hookworm infection (Old World) [5054]; roots, humans, schistosomiasis [5054]; roots, humans, helminth worm infections [5054]; roots, humans, fever [1340]; roots, humans, hookworm infection (Old World) [1340]; roots, humans, pelvis [2795]; roots, humans, venereal diseases (non-specified), oral ingestion [2795]; roots, humans, schistosomiasis, oral ingestion [2795] [5097]; roots, humans, other infection/infestation disorders/effects [2795]; bark, humans, other infection/infestation disorders/effects [2795]; leaves, humans, fever, oral ingestion [2795] [5097]; fruit juice, humans, scabies, external applications [2795]; fruit juice, humans, impetigo, external applications [2795]; fruit juice, humans, chicken pox, external applications [2795]; roots, humans, syphilis [1340] [5098]; roots, humans, anthelmintic [5098]; roots, humans, leprosy, washes [5154]; leaves, humans, schistosomiasis, oral ingestion [5097]; leaves, humans, helminth worm infections, oral ingestion [2795]; roots, humans, digestive system [5097]; roots, humans, venereal diseases (non-specified) [5054]
Inflammation	leaves, humans, eyes, inflammation [2774]; leaves, humans, eyes, inflammation, lotions [1340]; leaves, humans, tonsils, inflammation, mouth washes [2795]; roots, humans, knees, inflammation, oral ingestion [5098]; roots, humans, feet, inflammation, oral ingestion [5098]; leaves, humans, eyes, inflammation, washes [5097]; leaves, humans, eyes, inflammation [5082] [5098]
Injuries	leaves, humans, wounds, poultices [5054]; leaves, humans, wounds, external applications [2795]; roots, humans, wounds, external applications [5097] [5098]; kernels, humans, wounds, ointments [5088]; kernels, humans, burns, external applications [5088]; roots, humans, wounds, dressings [2795] [5097]
Mental Disorders	roots, humans, mental disability [5054]; roots, humans, other mental disorders/effects [2774]; leaves, humans, other mental disorders/effects [2774]; roots, humans [5054]
Metabolic System Disorders	roots, humans, diaphoretic, oral ingestion [5154]
Muscular-Skeletal System Disorders	roots, humans, chest [5054]; bark, humans, rheumatism [2795]; roots, humans, rheumatism [2795]
Pain	roots, humans, other pain disorders/effects [5054]; leaves, humans, abdomen, anodyne, oral ingestion [2795] [5097];

	seeds without testa, humans, ears, anodyne, external applications [5098]; seeds without testa, humans, jaws, anodyne, external applications [5098]; roots, humans, ears, anodyne [5098]; roots, humans, abdomen, anodyne, oral ingestion [2795] [5097]; roots, humans, chest, anodyne [5054]
Poisonings	roots, humans, scorpion stings [5054]; roots, humans, noxious foods, oral ingestion [5154]
Pregnancy/Birth/Puerperium Disorders	roots, humans, morning sickness, oral ingestion [2795] [5154]; roots, humans, other pregnancy/birth/puerperium disorders/effects, oral ingestion [5154]
Respiratory System Disorders	leaves, humans, coughs [2774] [5054]; roots, humans, coughs [2774]; roots, humans, coughs, oral ingestion [5101]; roots, humans [5088]
Sensory System Disorders	leaves, humans, eyes, other sensory system disorders/effects, washes [2795]; leaves, mammals, eyes, other sensory system disorders/effects, washes [2795]; roots, humans, ears, deafness [5098]; leaves, humans, eyes, vapour baths [5154]
Skin/Subcutaneous Cellular Tissue Disorders	leaves, humans, ulcers, poultices [5054]; kernels, humans, skin of specific areas, other skin/subcutaneous cellular tissue disorders/effects, external applications [1340]; fruit juice, humans, sores, external applications [2795]; roots, humans, sores [5154]; roots, humans, sores, oral ingestion [5154]; leaves, humans, boils, poultices [5054]
ENVIRONMENTAL USES	shelterbelts [5054]; hedges [5054]
Ornamentals	live plant in situ, potted plants [5097]; live plant in situ, gardens [5092] [5097]; live plant in situ, hedges [5096]

## Picture

None recorded

## Notes

## NOMENCLATURE/TAXONOMY

### *Name derivation:*

'Ximenia' is named after a Spanish monk, Francisco Ximenez [5092] [5097] .

### *Name derivation:*

'caffra' is a Latinisation of 'kaffir' which was derived from the Hebrew word 'kafri' - a country-man, or from the Arabic 'kafir' - unbeliever [5092] .

### *Name derivation:*

'caffra' is derived from Kaffraria (eastern Cape) [5097] .

See also the SEPASAL species account for *Ximenia caffra* Sond. var. *caffra* and *Ximenia caffra* Sond. var. *natalensis* .

## DISTRIBUTION

### *Africa:*

Widespread in Tanzania. Found, for example, in Kagera, Mwanza, Pwani, Dodoma, Morogoro and Tabora Regions. Also Kenya and Uganda, westwards to the Congo basin and into Malawi, Mozambique and South Africa [5054] .

### *Africa:*

Occur in Mozambique, southwards to South Africa [2774] .

## DESCRIPTION

*Stems:*

Young stems can be very hairy [2774] [5054] .

*Bark:*

Grey, grey-brown or black, smooth at first, then rough and fissured when old [2774] [5054] .

*Leaves:*

Larger, simple, alternate, 2.5-6.0 cm long, densely hairy at first and becoming shiny dark green, smooth when mature, on short stalk [2774] [5054] .

*Flowers:*

Solitary or in bunches from the same point, small, white-green, sometimes pink to red around the hairy throat [2774] [5054] .

*Fruits:*

Oval, about 2.5 cm long, greenish when young then soft, bright red when ripe containing one woody seed. The flavour is best when over-ripe [2774] [5054] .

*Lifestyle:*

A root hemiparasite [5082] .

*Odour:*

On being worked, the wood emits an odour like that of cedar (Van Wyk 1952) [1340] [5092] [5096] .

*Roots:*

It does not have an aggressive root system [5097] .

## IDENTIFICATION

Can easily be confused with *X. americana*. However, the leaves of the latter are more blueish-green in colour, smoother and smaller and the fruits are yellowish instead of red [5092] .

The larger leaves, fewer spines, more solitary flowers and red fruit distinguish this species from *X. americana*. There are two varieties in Tanzania [2774] .

Var. *caffra* leaves and young branches have dense brownish hairs that remain to maturity. Var. *natalensis* has hairless leaves and young branches, even when young [3045] [5082] .

## FOOD - INFRUCTESCENCES

*Fruits, beverages:*

Ripe fruits are sweet and are much eaten by children and herdsman. A refreshing drink can be prepared by squeezing fruits in water and adding sugar [5054] .

*Fruit juice, porridge:*

The Zulus sometimes squeeze out the fruits into water and the resultant juice is boiled and mixed with kaffir corn meal to make a tasty sour porridge [1171] .

*Fruit juice, porridges:*

Fresh juice or dried fruit added to porridge to add protein and taste [5092] .

*Fruit juice:*

Swazi suck the astringent juice of the ripe fruit and throw the rest away [1171] .

*Fruit pulp, raw:*

!Kung Bushmen, Barotse and Kwangali eat the fresh plum without its skin, sometimes swallowing the pips as well (Tanaka 1976) [1171] .

*Fruit pulp, raw:*

Pulp of the sour fruit is eaten raw and skin is rejected [5118] .

*Fruit pulp, raw:*

Zulus eat the fleshy part when the fruits are ripe in January and February [1171] .

*Fruit pulp:*

Fruit flesh produces an astringent effect in the mouth (Verdoorn 1938) [1340] .

*Fruit pulp:*

Very sour near the seed [1332] [2795] .

*Fruits, jams/jellies:*

The ripe fruit is used for making jam, dessert and jelly [5097] .

*Fruits, jellies:*

Make good jellies (Verdoorn 1938) [1340] [5096] .

*Fruits, porridges:*



Fresh juice or dried fruit added to porridge to add protein and taste [5092] .

*Fruits, raw, snack fruit:*

Most people eat the fruits on the spot as a snack, but it was not observed that large quantities of the fruits were collected [5088] .

*Fruits, raw:*

Bushmen regard the fruit as best when it is over-ripe because it does not become soft but dries out slightly and is said to then have the taste of a prune [1171] [1332] .

*Fruits, raw:*

In the Gabarone area of Botswana the fresh fruit is eaten raw [1171] .

*Fruits, staple food:*

Highly regarded by the !Khu of north-western Botswana and constituted one of their major foods [5089] .

*Fruits:*

Commonly eaten in rural areas [2795] .

*Fruits:*

Eaten by the Ovambo people of Namibia [5098] .

*Fruits:*

Eaten in Zimbabwe but not very popular [1171] .

*Fruits:*

Edible (Gilges 1953, Miller 1952, Union of South Africa 1921, Verdoorn 1938) [1340] .

*Fruits:*

Flesh is juicy and tart while the thicker flesh adherent to the stone is very sour (Union of South Africa 1921) [1340] [5092] .

## **FOOD - SEEDS**

*Entire seeds:*

The fleshy fruits contain a hard-shelled nut which is delicious to eat (Vaughan-Kirby 1918) [2795] .

*Kernels:*

The oily kernel is edible and very tasty [5092] .

## **ANIMAL FOOD - FERTILE PLANT PARTS**

*Fruits, birds, game mammals:*

Ripe fruits eaten by birds (barbets, bulbuls and starlings) and animals (eland, kudu, warthogs, grey duiker and steenbok) [5097] .

*Fruits, game mammals, browse:*

Eaten by kudu [5096] .

*Fruits, primates:*

Eaten by baboons [2514] .

## **ANIMAL FOOD - AERIAL PARTS**

*Leaves, game mammals, browse:*

Although the plant is probably utilised by all browsers, only kudu and impala have been observed eating the leaves [5096] .

*Leaves, game mammals:*

Eaten by giraffe, eland, kudu, impala, bushbuck and klipspringer [5097] .

## **MATERIALS**

*Wood properties:*

Hard and heavy (air-dry 830 kg/m<sup>3</sup>) [5092] [5096] .

*Wood properties:*

The dust is irritating to nose and throat and may produce violent sneezing (Van Wyk 1952) [1340] [5092] [5096] .

*Wood properties:*

The wood is hard and close-grained and has a large irregular reddish-brown heart surrounded by a creamish-coloured sapwood (Van Wyk 1952) [1340] .

## **MATERIALS - TANNINS/DYESTUFFS**

### *Tannins, fruits:*

Fruits used for the conditioning of hides (Quin 1954) [[1340](#)] .

### *Tannins, seeds:*

Contain a valuable oil that has traditionally been used to soften leather in KwaZulu-Natal. This was the oil of choice for hide softening because of its purity and lack of odour (Vaughan-Kirby 1918) [[2795](#)] .

### *Tannins, seeds:*

The non-drying oil from the seed, ximenia oil, is used by some people to soften leather [[3045](#)] [[5082](#)] [[5097](#)] .

### *Tannins, seeds:*

The seed contains tannin and is used in the tanning process and the oil extracted from the kernel is used to soften leather, especially clothing such as leather skirts [[5092](#)] .

### *Tannins, seeds:*

The seeds have been used for tanning (Dragendorff 1898) [[1340](#)] .

## **MATERIALS - LIPIDS**

### *Hair oil/lacquer, kernels:*

The stones are cracked and the kernels are ground to a hair paste. After this hair paste has been applied, the head is smeared with the brown powder obtained from *Pterocarpus angolensis* [[5101](#)] .

### *Non-drying oils, bows (weapons), seeds:*

Used by Bushmen to treat bows and bow strings to prevent breaking [[5082](#)] [[5092](#)] .

### *Non-drying oils, cosmetics, kernels:*

The oil is used as a cosmetic by the Pedi (Quin 1954) [[1340](#)] [[5092](#)] .

### *Non-drying oils, cosmetics, seeds:*

Used as a cosmetic for rubbing chapped feet and to anoint the body [[5097](#)] .

### *Non-drying oils, kernels:*

The Bushmen use this oil as an anointing lotion since it has a wonderful, softening effect on the skin. They also use the oil to treat their bow strings [[5092](#)] .

### *Non-drying oils, soap, seeds:*

Suitable for the manufacture of soap but cannot be produced economically for this purpose [[5096](#)] .

### *Oils, seeds:*

Oil, which the Africans use for body hygiene, is extracted from the seed [[5098](#)] .

### *Oils, seeds:*

The stone is rich in oil but this is said to be very pungent and to contain a rubbery substance [[1332](#)] .

### *Oils, skin cosmetics, seeds:*

The Bushmen use the oil to anoint themselves [[1332](#)] .

## **FUELS - PETROLEUM SUBSTITUTES/ALCOHOLS ETC.**

### *Seeds, lighting oil:*

The non-drying oil from the seed, ximenia oil, is used by some people for lamps [[5097](#)] .

## **SOCIAL USES - 'RELIGIOUS' USES**

### *Bark, ritual:*

During initiation ceremonies, Venda girls wear a tassel called 'thabu' which is woven from the bark, to which the juice of *Annona chrysophylla* is applied. The same sort of tassel is worn by the chief's youngest wife [[1340](#)] .

### *Roots, ritual/religion/magic:*

Shona women take a decoction of the root by mouth before pregnancy to prevent the infant from being born crippled [[5092](#)] .

### *Roots, ritual/religion/magic:*

The Ndebele mix the ground root with the cow-dung they use for their floors in order to keep witches away [[5082](#)] [[5092](#)] .

## **MEDICINES - ABNORMALITIES**

*Roots, humans, oedemas, oral ingestion:*

Blood problems indicated by swollen body and small sores are treated by boiling one cup of water with fresh roots and taking four times a day [5154] .

## **MEDICINES - CIRCULATORY SYSTEM DISORDERS**

*Roots, humans, other circulatory system disorders, oral ingestion:*

To purify the blood after symptoms such as dizziness, sweating and heart palpitation, roots are boiled with water and added to bark of *Sclerocarya caffra*. One cup of the fluid is taken four to five times per day [5154] .

*Roots, humans, other circulatory system disorders, oral ingestion:*

To treat palpitations, one cup of water boiled with one fresh or dried root is taken every day [5154] .

## **MEDICINES - DIGESTIVE SYSTEM DISORDERS**

*Roots, humans, intestine, diarrhoea, oral ingestion:*

Root infusions and decoctions taken for diarrhoea [2795] .

*Roots, humans, intestine, diarrhoea:*

An infusion made from the roots is used as a remedy for diarrhoea [5097] .

*Roots, humans, intestine, diarrhoea:*

In Tanganyika (Tanzania) the root is an African remedy for diarrhoea (Bally 1938) [1340] .

*Roots, humans, intestine, diarrhoea:*

Indigenous people of Central Africa use a root decoction for diarrhoea [5098] .

*Roots, humans, purgative:*

Indigenous people of Central Africa use a root decoction as a purgative [5098] .

*Roots, humans, purgative:*

Said to have a purgative effect (Brenan and Greenway 1949) [1340] .

## **MEDICINES - GENITOURINARY SYSTEM DISORDERS**

*Cattle:*

The Kgatla administer a decoction, made frequently with *Homeria pallida* Bak., to the bull to increase its potency (Schapera 1930) [1340] .

*Roots, humans, female infertility, oral ingestion:*

One cup of water boiled with roots is taken three times a day [5154] .

*Roots, humans, haematuria, oral ingestion:*

Root infusions and decoctions taken for haematuria, including for bilharzia [2795] .

*Roots, humans, menstruation:*

Roots boiled and the decoction used as a remedy for menstrual problems [5054] .

*Roots, humans, other genitourinary system disorders:*

Roots boiled and the decoction used as a remedy for infertility [5054] .

*Roots, leaves, humans, infertility, oral ingestion:*

Root decoctions or leaf powder is taken for infertility [2795] .

## **MEDICINES - ILL-DEFINED SYMPTOMS**

*Roots, humans, dizziness, oral ingestion:*

To purify the blood after symptoms such as dizziness, sweating and heart palpitation, roots are boiled with water and added to bark of *Sclerocarya caffra*. One cup of the fluid is taken four to five times per day [5154] .

## **MEDICINES - INFECTIONS/INFESTATIONS**

*Fruit juice, humans, skin, chicken pox:*

The juice from rotten fruits was applied to the pustules of chicken pox. A rationale behind this use is that the fungal growth on the decaying fruits produces antibiotics such as penicillin (Gumede 1990) [2795] .

*Fruit juice, humans, skin, impetigo:*

The juice from rotten fruits was applied to impetigo. A rationale behind this use is that the fungal growth on the decaying fruits produces antibiotics such as penicillin (Gumede 1990) [2795] .

*Fruit juice, humans, skin, scabies:*

The juice from rotten fruits was applied to scabies. A rationale behind this use is that the fungal growth on the decaying fruits produces antibiotics such as penicillin (Gumede 1990) [2795] .

*Leaves, humans, fever, oral ingestion:*

Powdered leaves are taken orally for fever [2795] [5097] .

*Leaves, humans, helminth worm infections, oral ingestion:*

Extracts of the leaves used as a vermifuge [2795] .

*Roots, bark, humans, other infection/infestation effects:*

Extracts of the bark and roots are used for systemic sepsis [2795] .

*Roots, humans, anthelmintic:*

Indigenous people of Central Africa use a root decoction for worms [5098] .

*Roots, humans, digestive system:*

An infusion made from the roots is used as a remedy for dysentery [5097] .

*Roots, humans, fever:*

In Tanganyika (Tanzania) the root is an African remedy for fever (Bally 1938) [1340] .

*Roots, humans, hookworm infection (Old World):*

In Tanganyika (Tanzania) a decoction of the root is used for ancylostomiasis (Brenan and Greenway 1949, Tanganyika 1958) [1340] .

*Roots, humans, leprosy, washes:*

Powdered, dried roots are put in a bottle of cold water. The fluid is left to stand, then used for washing the body [5154] .

*Roots, humans, pelvis:*

An infusion of the roots is used for pelvic disease (possibly pelvic inflammatory disease) [2795] .

*Roots, humans, schistosomiasis, oral ingestion:*

Root infusions and decoctions taken for bilharzia [2795] .

*Roots, humans, schistosomiasis:*

Roots boiled and the decoction used as a remedy for bilharzia [5054] .

*Roots, humans, syphilis:*

In Tanganyika (Tanzania) a decoction of the root is used for syphilis (Brenan and Greenway 1949, Tanganyika 1958) [1340] .

*Roots, humans, syphilis:*

Indigenous people of Central Africa use a root decoction for syphilis [5098] .

*Roots, humans, venereal disease (unspecified), oral ingestion:*

An infusion of the roots is used for venereal disease [2795] .

*Roots, humans, venereal diseases (unspecified):*

Roots boiled and the decoction used as a remedy for STDs [5054] .

*Roots, leaves, humans, schistosomiasis, oral ingestion:*

An infusion made from the roots, together with the leaves, is taken for bilharziasis [5097] .

## **MEDICINES - INFLAMMATION**

*Leaves, humans, eyes, inflammation, washes:*

A decoction made from the leaves is used as a wash to sooth inflamed eyes [5097] .

*Leaves, humans, eyes, inflammation:*

Eye inflammation is treated with a leaf decoction [2774] [5082] [5098] .

*Leaves, humans, eyes, lotions:*

The Zulu use a cold infusion of the leaf as an eye lotion for the relief of inflammation (Githens 1949) [1340] .

*Leaves, humans, tonsils, mouth washes:*

Extracts of the leaves are used as a gargle for tonsillitis [2795] .

*Roots, humans, feet, inflammation, oral ingestion:*

In the Okavango a hot-water extract is prepared from the crushed roots, which is taken for swollen feet [5098] .

*Roots, humans, knees, inflammation, oral ingestion:*

In the Okavango a hot-water extract is prepared from the crushed roots, which is taken for swollen knees [5098] .

## **MEDICINES - INJURIES**

*Leaves, humans, wounds, poultices:*

Pounded leaves are used as poultices for wounds [5054] .

*Kernels, humans, burns, wounds, ointments:*

The kernels are placed in hot ash. As soon as oil begins to ooze out of the kernel, it is removed from the ash, squeezed or pounded into a paste and applied externally to wounds, burns and the like [5088] .

*Leaves, humans, wounds, external applications:*

Powdered leaves are applied to fresh wounds as a styptic [2795] .

*Roots, humans, wounds, dressings:*

Powdered root is applied as a dressing to wounds [2795] [5097] .

*Roots, humans, wounds, external applications:*

The Ovambo strew the powdered root onto wounds that won't heal [5098] .

## **MEDICINES - MENTAL DISORDERS**

*Leaves, roots, humans, psychological illness:*

Leaves and roots are used to treat psychological illness [2774] .

*Roots, humans:*

Roots boiled and the decoction used as a remedy for mental illness [5054] .

## **MEDICINES - METABOLIC SYSTEM DISORDERS**

*Roots, humans, diaphoretic, oral ingestion:*

To purify the blood after symptoms such as dizziness, sweating and heart palpitation, roots are boiled with water and added to bark of *Sclerocarya caffra*. One cup of the fluid is taken four to five times per day [5154] .

## **MEDICINES - MUSCULAR-SKELETAL SYSTEM DISORDERS**

*Bark, roots, humans, rheumatism:*

Extracts of the bark and roots are used for rheumatism [2795] .

## **MEDICINES - PAIN**

*Roots, humans, anodyne, chest:*

Roots boiled and the decoction used as a remedy for chest pains [5054] .

*Roots, humans, ears, anodyne:*

In the Okavango the cleaned root is boiled together with a copper ring until nearly all the water has evaporated. The extract thus produced is used for earache [5098] .

*Roots, humans, other pain disorders:*

Roots boiled and the decoction used as a remedy for generalised body pains [5054] .

*Roots, leaves, humans, abdomen, anodyne, oral ingestion:*

An infusion made from the roots, together with the leaves, is taken for abdominal pains [5097] .

*Roots, leaves, humans, abdomen, anodyne, oral ingestion:*

Root or leaf infusions are taken for abdominal pain and cramps [2795] .

*Seeds without testa, humans, ears, jaws, anodyne, external applications:*

After removal of the outer shell, the seed of the ripe fruit is roasted and ground by the Heikum Bushmen and while still warm is applied to painful ears and jaws [5098] .

## **MEDICINES - POISONINGS**

*Roots, humans, noxious foods, oral ingestion:*

Ingestion of poisoned food, indicated by throwing bones, is treated by taking one mug of water boiled with dried roots twice a day [5154] .

*Roots, humans, scorpion stings:*

Roots boiled and the decoction used as a remedy for scorpion stings [5054] .

## **MEDICINES - PREGNANCY/BIRTH/PUERPERIUM DISORDERS**

*Roots, humans, morning sickness, oral ingestion:*

Porridge is made using a decoction of the roots and eaten once a day for nausea in pregnancy [2795] .

*Roots, humans, morning sickness, other pregnancy disorders, oral ingestion:*

For pregnant women who feel sick and whose fetus does not move around, porridge made of boiled roots is eaten once a day [5154] .

## **MEDICINES - RESPIRATORY SYSTEM DISORDERS**

*Roots, humans, coughs, oral ingestion:*

The roots are boiled and the infusion is taken as a remedy for coughs [5101] .

*Roots, humans:*

A root decoction can be taken to treat chest ailments [5088] .

## **MEDICINES - SENSORY SYSTEM DISORDERS**

*Leaves, humans, eyes, vapour baths:*

For eye problems indicated by redness and discharge, leaves are boiled and steam made to come into the eyes [5154] .

*Leaves, humans, mammals, eyes, other sensory system disorders, washes:*

Cold leaf infusions are used as an eyewash for painful eye conditions in man and animals [2795] .

*Roots, humans, ears, deafness:*

In the Okavango the cleaned root is boiled together with a copper ring until nearly all the water has evaporated. The extract thus produced is used for deafness [5098] .

## **MEDICINES - SKIN/SUBCUTANEOUS CELLULAR TISSUE DISORDERS**

*Leaves, humans, boils, poultices:*

Pounded leaves are used as poultices for boils [5054] .

*Fruit juice, humans, skin, sores:*

The juice from rotten fruits was applied to septic sores. A rationale behind this use is that the fungal growth on the decaying fruits produces antibiotics such as penicillin (Gumede 1990) [2795] .

*Kernels, humans, other skin disorders, external applications, skin of specific areas:*

Oil from the kernels is used by the Lobedu for anointing chapped feet (Quin 1954) [1340] .

*Roots, humans, sores, oral ingestion:*

Blood problems indicated by swollen body and small sores are treated by boiling one cup of water with fresh roots and taking four times a day [5154] .

## **ENVIRONMENTAL USES - ORNAMENTALS**

*Live plant in situ, gardens:*

A worthwhile tree to plant in the garden to attract fruit-eating birds and the various butterflies whose larvae feed on the leaves [5097] .

*Live plant in situ, gardens:*

The fruits will attract fruit-eating birds and the plant is therefore a good choice for a garden [5092] .

*Live plant in situ, hedges:*

May be planted as a hedge or decorative shrub for the sake of the attractive fruits [5096] .

*Live plant in situ, potted plants:*

Makes an ideal container plant and is particularly pretty when in full fruit. Keep the plant compact by trimming excesses branches during August to September [5097] .

## **TOXICITY/POISONOUS COMPOUNDS**

*Fruits:*

Skins contain prussic acid and could cause fatal poisoning when consumed in excess [5098] .

## **CHEMICAL ANALYSES - MISCELLANEOUS**

*Fruit pulp, potassium:*

Has particularly high potassium content [5092] .

*Fruit pulp, protein:*

Has high protein value [5092] .

*Fruits, seeds:*

Fruit and kernel oil have been the subject of chemical study (Ligthelm et al 1954, Union of South Africa 1949-50) [1340] .

*Fruits, vitamin C:*

Fresh fruit contain 27 mg per cent (Quin 1954) [1340] [5092] [5096] .

*Fruits, vitamin C:*

Ripe fruit has a vitamin C content of 27% [5097] .

*Fruits:*

Moisture 77.4 g/100g; ash 1.3 g/100g; protein 1.9 g/100g; fat 1.5 g/100g; fibre 0.9 g/100g; carbohydrate 17.0 g/100g; energy 37.4 kJ/100g; Ca 8.17 mg/100g; Mg 19.0 mg/100g; Fe 0.49 mg/100g; Na 1.25 mg/100g; K 558 mg/100g; Cu 0.17 mg/100g; Zn 0.29 mg/100g; P 35.14 mg/100g; thiamine 0.03 mg/100g; riboflavin 3.02 mg/100g; nicotinic acid 0.48 mg/100g; vitamin C 68.2 mg/100g [187] .

*Kernel:*

A conjugated unsaturated acid xymenynic acid has been isolated from the kernel oil (Ligthelm 1954, Ligthelm et al 1950) and further studies of this have been made (Ahler et al 1952, Ligthelm et al 1952) [1340] [5092] .

*Leaves, tannins:*

Said to contain tannin (Githens 1949) [1340] .

*Seeds, oil:*

Seeds have an oil content of 65% [5097] .

*Seeds, oils:*

The kernel contains a yellow viscous non-drying oil (Anon 1917, Miller 1952) the yield being about 65 % (Anon 1917) [1340] [5092] [5096] .

## CONSTRAINTS - MISCELLANEOUS

Insects damage the fruit [5096] .

Insects may damage the wood while it is still green [5096] .

Skins contain prussic acid and could cause fatal poisoning when consumed in excess [5098] .

## ALTITUDE

*Tanzania:*

0 - 2,000 m [5054] .

*Tanzania:*

5 - 2,000 m [2774] .

## TOPOGRAPHY/SITES

Rocky hillsides and termite mounds [2774] [5054] .

## FLOWERING/FRUITING/SEED SET

*Flowering, Kruger National Park, South Africa:*

July to October [5096] .

*Flowering, southern Africa:*

August to October [5097] .

*Flowering, southern Africa:*

September/October [5082] .

*Fruiting, Kruger National Park, South Africa:*

Ripens from November to February [5096] .

*Fruiting, Namibia:*

Fruit available December to January [5118] .

*Fruiting, southern Africa:*

December/January [5082] .

*Fruiting, southern Africa:*  
November to February [5097] .

## GERMINATION

Very good and fast for fresh seed [2774] .

## VEGETATIVE GROWTH

Growth rate is moderate, up to 500 mm per year [5097] .

## CYTOLOGY

For the genus,  $x = 12, 13$  [5150] .

## PHYSIOLOGICAL TOLERANCES

### *Frost:*

Can withstand moderate frost [5097] .

### *Frost:*

Does not withstand severe frost [5092] [5096] .

### *Light:*

Needs full sun [5097] .

## ASSOCIATED INSECTS

### *Lepidoptera:*

Larvae of the Natal bar (*Spindasis natalensis*), silvery bar (*S. phanes*), Bowker's sapphire (*Iolous bowkeri*), saffron sapphire (*I. pallene*), brown playboy (*Deudorix antalus*) and the bush scarlet butterfly (*Axiocerses amanga*) feed on the leaves [5097] .

### *Lepidoptera:*

Larval food plant for the butterflies *Hypolycaena phillipus phillippus*, *Mylothris agathina* and several members of the genera *Axiocerses*, *Iolous* and *Spindasis* [3045] .

### *Lepidoptera:*

Three butterflies belonging to the family *Lycaenidae* feed on this species during their larval stage: Bowker's tailed blue (*Stugeta bowkeri*), scarce sapphire (*Iolous pallene*) and the bush scarlet (*Axiocerses amaga*) [5092] .

## PARASITIC PLANTS

Partly parasitic on other bushveld plants [2795] .

## CULTIVATION

Potential as fruit crop (Schweikerdt 1937) [2795] .

## SEED WEIGHT

700 - 1,200 seeds per kg [2774] .

## PROPAGATION FROM SEED

Can only be propagated by means of seed, which germinate easily, but the seedlings grow slowly [5092] [5096] . Collect fresh seed from the trees and sow in seedling trays filled with a mixture of river sand and compost (5 to 1). Press the seeds into the mix until flush with the surface and cover with a thin layer of sand. Keep moist and never allow the mix to dry out. The seed should germinate after 14-30 days, but germination is usually erratic. Transplant the seedlings into nursery bags when they reach the two-leaf stage. Take care not to damage the roots when



transplanting. Fill the bags with a mixture of river sand and compost (5 to 1). Do not keep the plants in the bags for longer than a season before planting them out into open ground [5097] .

Seed viability is lost within 3 months [2774] .

## PROPAGATION - VEGETATIVE

Seedlings, suckers [2774] .

## 'CROP' MANAGEMENT

Pruning, coppicing [2774] .

## STORAGE

Viability is lost within 3 months [2774] .

### Fruits:

The fruit can be successfully dried in the sun and some tribes store the dried fruit [1171] .

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Nomenclature checked by Liana May, July 2002 .

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## ADDITIONAL DATA SOURCES

See also the SEPASAL species account for *Ximenia caffra* Sond. var. *caffra* and *Ximenia caffra* Sond. var. *natalensis* .

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