

WORMWOOD, AFRICAN



Artemisia afra
[ar-te-MIZ-ee-uh AF-ruh]

Family: Asteraceae

Names: wild wormwood, wilde-als (African); umhlonyane (Xhosa); mhlonyane (Zulu); lengana (Tswana); zengana (Southern Sotho)

Description: *Artemisia afra* grows in thick, bushy, slightly untidy clumps, usually with tall stems up to 2 m high, but sometimes as low as 0.6 m. The stems are thick and woody at the base, becoming thinner and softer towards the top. Many smaller side branches shoot from the main stems. The stems are ribbed with strong swollen lines that run all the way up. The soft leaves are finely divided, almost fern-like. The upper surface of the leaves is dark green whereas the undersides and the stems are covered with small white hairs, which give the shrub the characteristic overall grey colour. *A. afra* flowers in late summer, from March to May. The individual creamy yellow flowers are small (3-4 mm in diameter), nodding and

crowded at the tips of the branches. Very typical of *A. afra* is the strong, sticky sweet smell that it exudes when touched or cut. It is the only indigenous species in the *Artemisia* genus to the Southern and Eastern parts of Africa.

Cultivation: *Artemisia afra* needs full sun and heavy pruning in winter to encourage new lush growth in spring. Actively growing in the summer months, it should be able to take quite low temperatures during the winter months. Fast-growing, established shrubs are very tough and will slowly spread to form thicker clumps. New plants can be propagated by division or from cuttings that root easily in spring and summer. Seed can be sown in spring or summer. Take 10 centimetre cuttings, trim off excess leaves at the base of the stem, press into a prepared tray and keep moist until established. Transplant into larger pots and plant out when strong and bushy. Plant a metre apart as the bushes grow large, water once or twice weekly until they are growing well, thereafter once weekly. Can be used as a pot plant if placed in a large tub, but must be trimmed frequently. Clip back plants to neaten them at the end of summer, and save the leaves. Grow as a fast temporary hedge. Do grow it near Cabbages to deter cabbage butterfly and near fruit trees to keep away fruit tree moth.

History: The genus name *Artemisia* honors Artemis, the Greek goddess of hunting. Another interesting link to the name is Artemisia, the wife of the Greek/Persian King Mausolus, who ruled after his death in 353 BC. In his honor she built a magnificent tomb called the Mausoleum, known as one of the Seven Wonders of the Ancient World. She was also a

famous botanical and medical researcher. The species name *afra* means from Africa. Its Zulu name is umhlonyane

Constituents: Microchemical tests indicated the presence of tannins and saponins but not of alkaloids nor of cardiac, cyanogenic or anthraquinone glycosides. Other studies have identified the triterpenes α - and β -amyrin and friedelin as well as the alkanes ceryl cerotate and n-nonacosane in the leaves of South African collections of *Artemisia afra*.

Investigation of leaf exudate flavonoids revealed the presence of two luteolin methyl ethers. In an analysis of the sesquiterpene lactones of this species, 10 guaianolides and 5 glaucolides were detected in the overground parts of the plant.

Medicinal Uses: *Artemisia afra* is used in many different ways and one of the most common practices is to insert fresh leaves into the nostrils to clear blocked nasal passages. Another maybe not so common use is to place leaves in socks for sweaty feet. The roots, stems and leaves are used in many different ways and taken as enemas, poultices, infusions, body washes, lotions, smoked, snuffed or drunk as a tea. *A. afra* has a very bitter taste and is usually sweetened with sugar or honey when drunk. Wilde-als brandy is a very popular medicine still made and sold today. Margaret Roberts lists many other interesting uses which includes the use in natural insecticidal sprays and as a moth repellent.

Used mainly as an aqueous decoction or infusion applied externally or taken orally, the extremely bitter taste being masked by the addition of sugar or honey. Fresh leaf may be added to boiling water and the vapors inhaled. For the treatment of cough, croup, whooping cough, influenza, fever, diabetes, gastrointestinal disorders and intestinal worms. As an inhalation for the relief of headache and nasal congestion or a lotion to treat hemorrhoids. In traditional practice, fresh leaf is inserted into the nostrils to relieve nasal congestion or placed in boiling water as a steam bath for menstrual pain or after

childbirth. Warmed leaves may be applied externally as a poultice to relieve inflammation and aqueous infusions administered *per rectum* or applied as a lotion to treat hemorrhoids.

African *Artemisia afra* foliage was smoked by many Indian tribes to induce visionary states during religious ceremonies. It is a strong narcotic, analgesic and antihistamine. It is an excellent smoke or smoke-mix, reputed for its hallucinogenic effects and psychoactive properties. In Central America and the Caribbean Islands, it is dried and smoked along with *Cannabis sativa* as an aphrodisiac. Volatile oils from the plant resulted in significant activity against *Aspergillus ochraceus*, *A. niger*, *A. parasiticus*, *Candida albicans*, *Alternaria alternata*, *Geotrichum candidum*, and *Penicillium citrium*

Research: Antihistaminic and narcotic analgesic effects have been reported following preliminary tests. The volatile oil obtained from overground parts of *Artemisia afra* showed antimicrobial activity against a range of bacteria and fungi of public health or agricultural significance. The same study demonstrated antioxidant activity of the oil, in preventing decoloration of β -carotene and linoleic acid. Assays for antimalarial activity of extracts obtained from the dried aerial parts of Tanzanian plants showed weak activity against *Plasmodium falciparum* of petrol ether and dichloromethane extracts but no activity of methanolic extracts (hypoxanthine uptake assay). Investigation of antitumor activity in the mouse, of fresh leaf extracts (50% ethanol) of South African collections of *A. afra*, showed no activity against Leuk-L-1210 and Sarcoma-WM256 (IM) lines.

Dosage: An infusion may be made with two tablespoonsful (± 7.0 g) of dried ground herb to which is added one litre of boiling water. The mixture is strained when cold. If fresh herb is used, four tablespoonsful of chopped leaf are infused with one litre of boiling water.

Toxicity: The toxicity of thujone, a common component of the essential oils of *Artemisia*,

Salvia, *Thuja* and *Tanacetum* species, is well known. The effects of excessive or prolonged ingestion include restlessness, vomiting, vertigo, tremor, convulsions and fatty degeneration of the liver, a syndrome formerly known as “absinthism” because of its prevalence in Paris café society absinthe drinkers of the late 19th century. Thujone isomers are reported to be abortifacient and emmenagogic and the use of this herb during pregnancy is not recommended.

Aromatherapy Uses:

Properties: Anthelmintic, antiseptic, choloretic, emmenagogue, febrifuge, insect repellent, narcotic, stimulant (digestive), tonic, vermifuge.

Uses: Cold and flu as an inhalant, antiseptic soaps.

Contraindications: Toxic, abortifacient.

Habitual use can cause restlessness, nightmares, convulsions, vomiting and in extreme cases, brain damage.

Blends: Oakmoss, jasmine, orange blossom, lavender, hyacinth.

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