

### *Aloe vera*

[Synonyms : *Aloe abyssinica*, *Aloe arabica*, *Aloe barbadensis*, *Aloe barbadensis* var. *chinensis*, *Aloe chinensis*, *Aloe elongata*, *Aloe flava*, *Aloe indica*, *Aloe lanzae*, *Aloe littoralis*, *Aloe officinalis*, *Aloe perfoliata*, *Aloe perfoliata* var. *barbadensis*, *Aloe perfoliata* var. *vera*, *Aloe vera* var. *chinensis*, *Aloe vulgaris*]

**ALOE** (Danish, English, Russian, Spanish, Swedish) is a succulent evergreen shrub. Native to southern and eastern Africa and to parts of the Mediterranean, it has orange, red or yellow flowers.

It is also known as *Aaloe* (Finnish), *Aalwee* (Afrikaans), *Aalwyn* (Afrikaans), *Acibar* (Spanish), *Aloë* (Dutch), *Aloe delle Barbados* (Italian), *Aloe di Curacao* (Italian), *Aloe mediterranea* (Italian), *Aloe nastojaščee* (Russian), *Aloés* (French, Portuguese), *Aloés de Barbados* (Portuguese), *Aloés ordinaire* (French), *Aloés vulgaire* (French), *Aloes zwyczajny* (Polish), *Aloe vera* (Czech, English, German, Italian, Russian), *Aloé vera* (Portuguese), *Aloja* (Serbian), *Aroe* (Japanese), *Azebre Vegetal* (Portuguese), *Babosas* (Portuguese), *Barbados aloe* (English, Swedish), *Barbadosaloe* (Swedish), *Bitter aloes*, *Cây aloe vera* (Vietnamese), *Cây Lô Hôi* (Vietnamese), *Cây Nha Đam* (Vietnamese), *Chinna kalabanda* (Telugu), *Chinna-kata banda* (Telugu), *Chirukattali* (Tamil), *Coastal aloe*, *Common aloe*, *Curacao aloe*, *Curacaosaloe* (German), *Echte Aloe* (German), *Erva-babosa* (Portuguese), *First aid plant*, *Flor do deserto* (Argentinian, Spanish), *Gavakava* (Shona), *Ghee-kanvar* (Hindi), *Ghikanvar* (Hindi), *Ghiu kumari* (Nepalese), *Ghrita-kumari* (Bengali, Sanskrit), *Guar patha* (Hindi), *Hang ta khe* (Thai), *Indian aloe*, *Jaffarabad aloe*, *Kattalai* (Tamil), *Korphad* (Marathi), *Kumari* (Bengali, Malayalam, Oriya, Sanskrit), *Kuvar-patha* (Gujarati), *Lääkealoe* (Finnish), *Lægealoe* (Danish), *L'aloés* (West Indian), *Lalwa* (Creole), *Legno Aloe* (Italian), *Lidah buaya* (Malay), *Lináloe* (Spanish), *Lolisara* (Kannada), *Loto do deserto* (Argentinian, Spanish), *Maguey morado* (Spanish), *Medicinal aloe*, *Medicine plant*, *Mediterranean aloe*, *Musambra aloe*, *Penca sábila* (Colombian, Spanish), *Pitera amarelo* (Argentinian, Spanish), *Pohon gaharu* (Malay), *Sábila* (Mexican, Spanish), *Sábila do penca* (Argentinian, Spanish), *Sarysabyr* (Turkish), *Sávila* (Spanish), *Star cactus*, *Toots amarelo* (Argentinian, Spanish), *True aloe*, *Wan fai mai* (Thai), *Wan hang chora khe* (Thai), *West Indian aloe*, *Yellow aloe*, *Zabbara* (Maltese), *Zábila* (Spanish), and *Zábila dos toots* (Argentinian, Spanish); and in flower language is said to symbolize affliction, grief, misplaced devotion, and religious superstition.

Sunbirds pollinate plants growing south of the Equator.

Fresh leaves are picked as needed (preferably from at least two year old plants) and cut at the base to release the clear, pale greenish-yellow, bitter-tasting gelatinous sap. (This sap is dried commercially to give a brownish crystalline solid – but this is not as potent as the original liquid.)

Warning – internal use can cause urine to turn red. Excessive internal use or overdose can cause diarrhoea, gastritis, piles, and severe intestinal cramps and can contribute to kidney damage.

*Vera* is Latin (true, genuine) meaning ‘true or standard’ with reference to describe the species as typical of the genus.

Originally aloe was believed to grow only on the Island of Socotra off the horn of Africa in the Indian Ocean – it was not appreciated that the aloe most familiar then was probably the close relative *Aloe perryi*, Bombay aloe. Legend tells how Alexander the Great (356-323 BC) king of Macedonia, was asked by the Greek philosopher and scientist, Aristotle (384-322 BC) to conquer the Island of Socotra because of the sought after sap in aloe's leaves. The Island's capture would have been invaluable commercially in view of the sap's medicinal significance in those days. Countries around the Mediterranean believed Socotra to be the only source of this precious drug at that time.

Early Arabian records suggest that by at least the 6<sup>th</sup> Century BC aloe was being used as a laxative – and it was the powdered leaves of this species that were combined with myrrh (*Commiphora myrrha*) for use in embalming. This is said to be referred to by John in the New Testament of the *Bible* when he describes how Nicodemus brings 1 lb. of it to the garden tomb after Jesus' crucifixion. By the time the Greek physician, Pedanius Dioscorides, was practising in the 1<sup>st</sup> Century AD it seems that aloe was being recommended for many other medicinal purposes, including the treatment of digestive disorders, kidney ailments and oral and skin diseases. In the 10<sup>th</sup> Century Moslem travellers noted that Socotra still seemed to be the only known source. By that time apparently English records indicate that aloe was familiar to the Anglo-Saxons. It would appear from some records that the Patriarch of Jerusalem had recommended the plant for its medicinal qualities to Alfred the Great (849-899). At that time aloe would have been reaching Europe via the Red Sea and Alexandria, a journey that would not only have been fraught with danger and been extremely costly but also have taken a far far greater time than today. By early in the 17<sup>th</sup> Century the East India Company's archives show that England was trading direct with the Sultan of Socotra who had managed to retain a monopoly of his Island's produce.

Cleopatra (69-30 BC) Queen of Egypt, was said to have used aloe in her beauty treatments. Today cosmetics companies can include it as one of their ingredients in lotions, shampoos and skin creams. In Malaysia the diluted sap has also been used locally as a hair conditioner. Chemists are in no doubt that it has a healing, moisturizing, soothing and rejuvenating effect on the skin, as well as offering protection from ultra-violet rays. Pharmaceutical companies also produce aloes in the form of a paint which when applied is said to be able to discourage nail biting and at the turn of the 20<sup>th</sup> and 21<sup>st</sup> Centuries have with unanticipated and great difficulty found a way of producing a gel that contains 99.9% *Aloe vera*.

In Mexico in the Sonora area Indian tribes are also said to have been using the plant for some time to heal burns and prevent subsequent scarring.

American research at NASA at the turn of the 20<sup>th</sup> and 21<sup>st</sup> Centuries has identified useful air purification qualities in aloe as a growing plant. Apparently it is believed to be able to dissipate formaldehyde present in interior environments.

In view of the emphasis so far on medical or cosmetic benefits offered by aloe it is perhaps surprising to learn that it is also of interest on a commercial scale to the food and drink industries in the West. Apparently the latter adds an extract to flavour bitters, vermouth and cordials. The food industry on the other hand includes an aloe extract for flavouring baked goods, confectionery and gelatins.

Medicinally, herbalists used to recommend the dried powdered juice as a laxative but its primary benefits were seen to be in healing wounds and burns. These latter remarkable properties continue to be relevant today. Their use has now been extended to the treatment of chronic skin and mouth ulcers, eczema, poison ivy rashes (*Rhus radicans*) and radiation burns – despite the fact that research has as yet been unable to identify the healing mechanisms. Thus it is by no means certain that these healing properties exist

other than in the fresh juice (latex).

Today in Barbados and Jamaica it is used to make a tea for treating colds, and the juice is used as a remedy for both headaches and wounds. Jamaican inhabitants also use the juice to enhance appetite, improve digestion and ease periods. In Marie Galante the juice is mixed with rum for treating diabetes, and it is also employed as a remedy for wind, for soothing breasts during weaning, for deterring children from sucking their fingers and for treating eye infections. While in Africa some hunters cover their skin with aloe juice to lessen skin smell and perspiration. In India the dried juice has been used to treat constipation, the pulp has been an ingredient for some period problems, the root has been included in remedies for wind, and the plant has also been chosen for dealing with piles and stomach upsets.

The regard in which aloe is held for healing radiation burns is dramatically illustrated by reports that the United States was (and may still be) stockpiling the plant with this object in mind (particularly in the event of nuclear attack). Large plantations of aloe have been cultivated in Florida and Texas.