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Sutherlandia Fructosate vs Cancer (AIDS &c)

<http://www.healsa.co.za/print/pcredo.htm>

Credo Mutwa's HIV Remedy

Credo: "I wish to appeal to the world. First, I am not a quack or a charlatan or a sensationalist. I am an old man who has seen much. I wish the world to know that there is a faint ray of hope that emanates from South Africa.

It is a plant which is almost on the point of extinction, a plant called 'Sutherlandia Fructosate'. This plant works miracles on people who have the terrible disease called Aids. And it is so miraculous that the miracles are seen within a week or a fortnight. A person, who was lying down on the point of death, when given this plant, rises and has much energy and is free of depression and has a good appetite. And I feel that as a nation, as a matter of world emergency, because the big scientists have not produced a viable safe treatment for aids. I say that this plant should be planted by all caring governments, by all caring organizations and that it should be given to human beings free of charge.

You don't have to do anything with the plant. You are going to laugh about this. You plant the plant okay, but then you take the little leaves and the red flowers from it and you put them in a tea cup and you pour much boiling water on it. And then you let the cup stand there, like tea you know, and you just drink, the patient just drinks.

You can take them straight from the garden. You don't need to dry them first? because if you dry them too much they somehow lose some of their good spirit. Now this is all you do.

You know, what I say is this. I can't cure the people of Africa without curing the people of the Caribbean, because Aids is running around the world. If I cure the people here and they get better, more Aids will come in and eat the same people whom I tried to cure. So the whole world must be cured.

You need to take a fine sandpaper and sandpaper each little seed. The seeds are very tiny, tinier than grape seeds. And you sandpaper each seed and you plant it in a small flower pot. And you allow it to grow until it is about maybe four inches, three inches high. Then you take it and you plant it in the big veld (grassland). You can make a big garden, maybe twenty acres or so and you plant there. They just grow. There are farmers who have already planted them but they are too few. This is a world emergency and we must not be selfish.

In the last few years or so there has been many claims made by people about plants and herbs, which they say are beneficial in the fight against aids. Some of these claims have proven to be false and at best have proven to be exaggerations. But in South Africa there is

plan, which is on the brink of extinction.

This plant is called by white people in English 'Suderlandia Fructosate'. This plant is also called by the Afrikaans people 'kankerbos', which means cancer bush or 'kalkoenbos', which means turkey bush. Now this plant was known in South Africa and other parts of Sub-Saharan Africa for thousands of years. It was an anti-depressant, it was appetite booster, it was also and still is a dramatic booster of the human immune system.

For many years African people and Xhosi-xhosi people and Xhosi-san people as well as Bantu people used this plant in the fight against cancer, and it was very effective there, and it still is. And they used it also in the fight against diseases like tuberculosis before there was streptomycin and other drugs to fight tuberculosis.

In the old days when ordinary venereal disease like gonorrhea, syphilis and others were as incurable as Aids is today, our people used this plant to fight those diseases. If they had not had this plant, the black people of Southern Africa would have been destroyed just as the Australian Aborigines were destroyed, and other races of aboriginal people in other parts of the world were brought to extinction by diseases brought in from Europe.

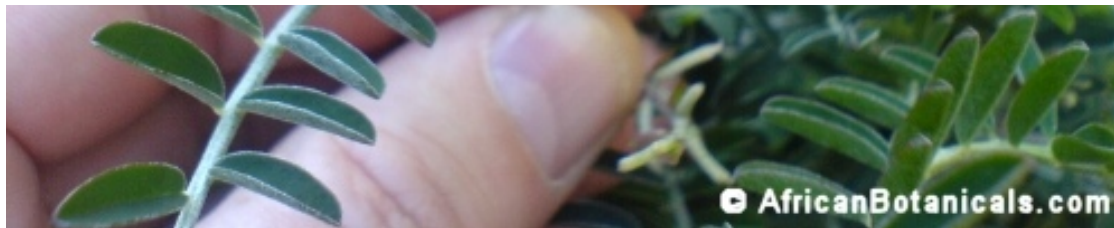
Now, we have found... me and a group of doctors, that it is having a dramatic impact in creating a better quality of life. People with full-blown aids, people who had been sent home to die find a better quality of life within the space of a month or a fortnight. I do not claim that this plant, dramatic as the results are is the cure for Aids.

I say it is a stopgap, which must be used by all human kind in order to halt the disease of Aids. Until such a time as the pharmaceutical scientists can come up with a real cure, a cure which is not at all toxic. I say that this plant 'Suderlandia' is not at all toxic. One 'Suderlandia plant' is capable of treating 10 people, and we need plantations of this plant.

There is hope, a little ray of hope, a green ray of hope, emanating from South Africa, and I call on all human fellow human beings to make it larger, to spread hope throughout the world. I challenge you to create a safer, healthier world."







<http://www.plantzafrica.com/plantqrs/sutherfrut.htm>

Sutherlandia frutescens (L.) R.Br.

Family: Fabaceae (pea & bean family/Leguminosae)

Common names: sutherlandia, cancer bush, balloon pea (Eng.); umnwele(Xhosa & Zulu); kankerbos, blaasbossie, blaas-ertjie, eendjies, gansiekeurtjie, klappers, hoenderbelletjie (Afr.)

Sutherlandia frutescens, is a much-respected and long-used medicinal plant that is also an attractive garden plant, and has been cultivated in gardens for many years, for its fine form, striking colour and luminous flowers.

Description

Foliage

Sutherlandia is an attractive small, soft wooded shrublet, 0.5 to 1 m in height. The leaves are pinnately compound . The leaflets are 4-10 mm long, grey-green in colour, giving the bush a silvery appearance. They have a very bitter taste.

The flowers are orange-red, up to 35 mm long, and are carried in short racemes in the leaf axils at the tips of the branches in spring to mid-summer (September - December). Flower close up The flowers are not typical 'pea' flowers, the wing petals are very small and are concealed in the calyx, and the standard petal is much shorter than the keel.

The fruit is a large, bladder-like, papery inflated pod and is almost transparent. It can be used in dry flower arrangements as it dries well, maintaining its colour and form.

Ecology

Sunbirds pollinate the attractive, butterfly-like red flowers. The lightweight, papery, inflated pods enable the seed to be dispersed easily by wind. Stock browse the foliage.

Ecologically legumes are well known for fixing nitrogen in the soil through a symbiotic relationship with bacteria. The bacteria infect the roots, forming small growths or nodules. Inside the nodules, atmospheric nitrogen, which the plants cannot use, is converted to ammonia, which plants can use. The plant supplies sugars for the bacteria, while the bacteria provide the biologically useful nitrogen that the plant absorbs.

Distribution

Sutherlandia frutescens occurs naturally throughout the dry parts of southern Africa, in Western Cape and up the west coast as far north as Namibia and into Botswana, and in the western Karoo to Eastern Cape. It shows remarkable variation within its distribution.

Derivation of name and historical aspects

The genus *Sutherlandia* is so closely related to *Lessertia* and some botanists consider that it should be sunk in to *Lessertia*. This species is sometimes called *Lessertia frutescens*. The genus *Sutherlandia* was named after James Sutherland, ?1639-1719, first Superintendent of the Edinburgh Botanic Garden. The genus *Lessertia* is named after Jules Paul Benjamin de Lessert, 1773-1847, a French industrialist, banker, amateur botanist and owner of an important private herbarium used by De Candolle. The species name *frutescens* means bushy in Latin.

Pods *Sutherlandia frutescens* has many common names. It has become widely known as *sutherlandia*, The name cancer bush, *kankerbos*, comes from its reputation as a cure for cancer. The names balloon-pea, *blaasbossie* or *blaas-ertjie* (meaning bladder-bush or bladder-pea) all refer to the inflated, bladder-like fruits. The name *klapper* (meaning rattle) is a name applied to many species whose seeds rattle about in the mature, dry pods. The name *hoenderbelletjie* is in reference to the bright red flowers that are suggestive of the wattles (*belletjies*) of a fowl (*hoender*). The names *eendjies* and *gansiekeurtjie* are in reference to the inflated fruits which float on water and which are used by children as toy ducks (*eendjies*) and toy geese (*gansies*). *Keurtjie* is an old name applied mainly to species of *Podalyria* and occasionally to *Sutherlandia* and used as far back as 1680, derived from the Dutch *keur* meaning 'the pick of' or 'choice' in reference to their showy flowers. The Zulu name *unwele* means 'hair' - alluding to the fact that the plant stops people 'pulling out their hair' with distress.

The Fabaceae (pea & bean or pod-bearing family) is the second largest flowering plant family. It contains more than 600 genera and 12 000 species and is found throughout the world. In southern Africa this family is represented by 134 genera and more than 1 300 species.

The genus *Sutherlandia*, which has since been sunk in *Lessertia*, used to contain only 5 species, widespread throughout southern Africa. The genus *Lessertia*, which now includes *Sutherlandia*, is widely distributed in Africa, consists of ± 60 species, with ± 50 in southern Africa.

There are other closely related species that are often confused with *Sutherlandia frutescens*, these are *Sutherlandia montana* the mountain cancer bush, *Sutherlandia microphylla* commonly known as bitterblaar or grootgansiesbos, and *Sutherlandia tomentosa*, also known as *eendjies* or *rooikeurtjie*.

Bush with dry pods

Uses and cultural aspects:

This plant is one of the most talked about in the ethnobotanical world because it has a strong reputation as a cure for cancer and now increasingly as an immune booster in the treatment of HIV/AIDS. Research on its properties is ongoing.

It has long been known, used and respected as a medicinal plant in southern Africa. The original inhabitants of the Cape, the Khoi San and Nama people, used it mainly as a decoction for the washing of wounds and took it internally to bring down fevers. The early colonists regarded it as giving successful results in the treatment of chicken pox, stomach problems, and in the treatment of internal cancers. It is also known to have been used in the treatment of eye troubles, the eyes being bathed with a decoction of the plant. It continues to be used to this day as a remedy for the above-mentioned ailments. It is still used as a wash for wounds, to bring down fevers, to treat chicken pox, for internal cancers, and farm workers in the Cape still use it to treat eye troubles. It is also used to treat colds, 'flu, asthma, TB, bronchitis, rheumatism, rheumatoid arthritis and osteo-arthritis, liver problems, haemorrhoids, piles, bladder, uterus & 'women's' complaints, diarrhoea & dysentery, stomach ailments, heartburn, peptic ulcers, backache, diabetes, varicose veins and inflammation. It is also used in the treatment of mental and emotional stress, including irritability, anxiety and depression and is used as a gentle tranquillizer. It is said to be a useful bitter tonic and that a little taken before meals will aid digestion and improve the appetite. It is considered to be a good general medicine.

There is as yet no scientific support for the numerous claims and anecdotes that this plant can cure cancer, but there is preliminary clinical evidence that it has a direct anti-cancer effect in some cancers and that it acts as an immune stimulant.

Sutherlandia should not be regarded as a miracle cure for cancer, its real benefits are as a tonic that will assist the body to mobilize its own resources to cope with the illness. It is known to decrease anxiety and irritability and to elevate the mood. Cancer patients, as well as TB and AIDS patients, lose weight and tend to waste away. Sutherlandia dramatically improves the appetite and wasted patients start to gain weight. It is also known to improve energy levels and gives an enhanced sense of well-being. It is hoped that treatment with sutherlandia will delay the progression of HIV into AIDS, and even remission of the disease is hoped for.

Growing *Sutherlandia frutescens*

Seeds in dry podSutherlandia is fast growing and easy to grow, but short-lived as a garden subject. It is a tough, hardy plant that does well in full sun and tolerates all soil types. It occurs both in summer and winter rainfall regions, and is quite drought tolerant so does not require much watering. When growing it in containers, make sure that it is well drained and don't over-water. The plant is also quite pest resistant. Plants seed themselves readily, so that as the older plants start to look past their best they can be removed.

It makes interesting temporary filler in the mixed border, rockery or shrubbery, especially if it is planted in groups or en masse. It is also a good contrast foliage plant against a green backdrop and can be used effectively to punctuate a soft landscape planting. It is also a must for the herb garden. It grows well in containers, and can be used as a temporary decoration for the patio or courtyard. Because they are fast and tough, they also work quite well as pioneers in a new garden, where they give cover and colour while the slower growing perennials get going.

The cancer bush seeds itself readily, and grows easily from seed. Sow in autumn or spring in well-drained soil. Germination is improved if seeds are left to soak for about 4 hours or overnight in water hot enough for you to put your hand in. We have found that many

members of the pea & bean family are susceptible to pre-emergence damping off. Using sterile soil and treating the seed with the Apron (a.i. metalaxyl) effectively combats fungal infection. Keep the seed trays warm (not hot) and damp but not wet. Germination should occur in 2 to 3 weeks and seedlings can be transplanted as soon as they are large enough to handle. Planting the plants close together in groups of 3 or 5 will give you a fuller, more attractive bush.

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<http://www.sutherlandia.org>

J Ethnopharmacol. 2005 Jan 4;96(1-2):113-9.

Anti-HIV activities of organic and aqueous extracts of *Sutherlandia frutescens* and *Lobostemon trigonus*.

Harnett SM, Oosthuizen V, van de Venter M.

Department of Biochemistry and Microbiology, University of Port Elizabeth, PO Box 1600, Port Elizabeth, 6000 South Africa.

A screening process was applied to extracts made from *Sutherlandia frutescens* (L.) R. Br (Fabaceae) and *Lobostemon trigonus* (Boraginaceae) as identified by the Botany Department,

University of Port Elizabeth to detect if any of the extracts inhibited the human immunodeficiency virus (HIV). For purposes of dereplication, sulphated polysaccharides were removed and bovine serum albumin (BSA) was included in the assays to adsorb non-specific tannins potentially present. In the reverse transcriptase (RT) assay, an aqueous extract of the *Lobostemon* leaves inhibited HIV-1 RT with an IC₅₀ value of 49 microg/ml, while in the protease assay no inhibition was seen. In the alpha- and beta-glucosidase assays, no significant inhibition was seen with the inclusion of BSA, indicating tannin-based inhibitory effects on these two enzymes. The beta-glucuronidase inhibitory activity, however, was retained in the presence of BSA. The study shows that *Sutherlandia* extracts contain inhibitory compounds active against HIV target enzymes, while aqueous *Lobostemon* leaf extracts contain a potent HIV-1 RT inhibitor, thus showing a potential mechanistic action of these plants in aiding HIV-positive patients.

J Ethnopharmacol. 2004 Nov;95(1):1-5.

The antioxidant potential of *Sutherlandia frutescens*.

Fernandes AC, Cromarty AD, Albrecht C, van Rensburg CE.

Department of Pharmacology, Faculty of Health Sciences, University of Pretoria, PO Box 2034, Pretoria 0001, South Africa.

One of the best-known multi-purpose medicinal plants in Southern Africa, *Sutherlandia frutescens* subsp. *microphylla* (family: Fabaceae/Leguminosa), is used for a wide range of conditions, including cancer, viral diseases and inflammatory conditions. Little scientific data has been documented on the mechanism by which *Sutherlandia frutescens* acts on the immune system. Phagocyte derived reactive oxygen species, such as hydrogen peroxide and superoxide radicals, are responsible for the pathogenesis of various inflammatory conditions. Anti-inflammatory properties of various medicinal-plant extracts have been explained, at least in part, by their antioxidant activities. We investigated the effects of a hot water extract of *Sutherlandia frutescens* on both luminol and lucigenin enhanced chemiluminescence of neutrophils stimulated with L-formyl-L-methionyl-L-leucyl-L-phenylalanine (FMLP) as well as its superoxide and hydrogen peroxide scavenging properties in a cell free system. The results indicate that *Sutherlandia frutescens* extract possesses superoxide as well as hydrogen peroxide scavenging activities at concentrations as low as 10 microg/ml, which could account for some of the anti-inflammatory properties that have been described.

Methods Find Exp Clin Pharmacol. 2004 Jul-Aug;26(6):409-16.

Analgesic, antiinflammatory and hypoglycemic effects of *Sutherlandia frutescens* R. BR. (variety *Incana* E. MEY.) [Fabaceae] shoot aqueous extract.

Ojewole JA.

Department of Pharmacology, Faculty of Health Sciences, University of KwaZulu-Natal, Durban, South Africa.

Previous studies on the pharmacology of South African medicinal plants in our laboratories and elsewhere have shown that some plants possess therapeutic attributes. One such ethnomedically useful plant is *Sutherlandia frutescens* R. BR. (family: Fabaceae). *S. frutescens* is widely used in South African traditional medicine for the management and/or control of a plethora of human ailments. In order to scientifically appraise some of the ethnomedical uses of *S. frutescens*, the present study was undertaken to investigate the analgesic, antiinflammatory and antidiabetic properties of the plant's shoot aqueous extract in experimental animal models. The analgesic effect of the herb's shoot extract was evaluated using the hot-plate and acetic acid test models of pain in mice, while the antiinflammatory and hypoglycemic effects of the plant's shoot aqueous extract were investigated in rats, using fresh egg albumin-induced pedal (paw) edema, and streptozotocin (STZ)-induced diabetes mellitus. Diclofenac (100 mg/kg) and chlorpropamide (250 mg/kg) were used, respectively, as reference drugs for comparison. *S. frutescens* shoot aqueous extract (50-800 mg/kg i.p.) produced significant ($p < 0.05-0.001$) analgesic effects against thermally- and chemically-induced nociceptive pain stimuli in mice. The plant extract (50-800 mg/kg p.o. or i.p.) also significantly ($p < 0.05-0.001$) inhibited fresh egg albumin-induced acute inflammation and caused significant ($p < 0.05-0.001$) hypoglycemia in rats. The various chemical constituents and secondary metabolites of the herb are speculated to account for the observed analgesic, antiinflammatory and hypoglycemic effects of the plant. The results of this experimental animal study suggest that *S. frutescens* shoot aqueous extract possesses analgesic, antiinflammatory, and hypoglycemic properties, and thus lend pharmacological credence to the suggested folkloric uses of the herb in the management and/or control of painful, arthritic and other inflammatory conditions, as well as for adult-onset, type-2 diabetes mellitus in some communities of South Africa.

J Ethnopharmacol. 2005 Apr 8;98(1-2):163-70.

***Sutherlandia frutescens* extracts can induce apoptosis in cultured carcinoma cells.**

Chinkwo KA.

Laboratory of Biochemistry, Department of Biotechnology, University of the Western Cape, Private Bag X17, Bellville 7535, Cape Town, South Africa.

Sutherlandia frutescens popularly known as cancer bush is endemic to Southern Africa. Whole plant parts have been used and traditional healers claim that it can treat cancer. In this study it is shown that a crude aqueous *Sutherlandia frutescens* whole plant extract induced cytotoxicity in neoplastic cells (cervical carcinoma) and CHO (Chinese Hamster Ovary cells) cell lines. Morphological observation and monitoring with other biological assays involving chromatin condensation as well as phosphatidyl serine externalisation point to apoptotic responses. Further biochemical assays showed similar DNA fragmentation patterns induced by *Sutherlandia frutescens* extracts compared to other inducers of apoptosis such as staurosporine and ceramide. Furthermore, *Sutherlandia frutescens* extracts induced apoptosis was confirmed by flow cytometric analysis. These findings warrant further research with a view to develop *Sutherlandia frutescens* extracts for use in anti-cancer therapy.

Impact of African herbal medicines on antiretroviral metabolism.

Mills E, Foster BC, Heeswijk RV, Phillips E, Wilson K, Leonard B, Kosuge K, Kanfer I.

Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Ontario, Canada

University of British Columbia, British Columbia Centre for Excellence in HIV/AIDS, Vancouver, British Columbia, Canada

Division of Infectious Diseases, Ottawa General Hospital, Ottawa, Ontario, Canada

Department of Medicine, University of Toronto, Toronto, Ontario, Canada

Canadian College of Naturapathic Medicine, Toronto, Ontario, Canada

Faculty of Pharmacy, Rhodes University, Grahamstown, South Africa.

We examined the effects of two African herbal medicines recommended for HIV/AIDS patients on antiretroviral metabolism. Extracts from *Hypoxis* and *Sutherlandia* showed significant effects on cytochrome P450 3A4 metabolism and activated the pregnane X receptor approximately twofold. P-glycoprotein expression was inhibited, with *Hypoxis* showing 42-51% and *Sutherlandia* showing 19-31% of activity compared with verapamil. Initiating policies to provide herbal medicines with antiretroviral agents may put patients at risk of treatment failure, viral resistance or drug toxicity.

J Ethnopharmacol. 2004 Jul;93(1):9-19.

In vitro culture studies of *Sutherlandia frutescens* on human tumor cell lines.

Tai J, Cheung S, Chan E, Hasman D.

Departments of Pathology and Pediatrics, Center for Complementary Medicine Research, BC's Research Institute for Children's and Women's Health, University of British Columbia, 4480 Oak Street, Vancouver, BC, Canada V5Z 4H4.

Sutherlandia frutescens is a South African herb used traditionally by the natives to treat cancer, and more recently to improve the overall health in HIV/AIDS patients. Gas chromatography/mass spectrometer profiling and liquid chromatographic/mass spectral investigation confirmed and quantified the presence of canavanine, GABA and arginine in the herbal preparation used in this study. In vitro study demonstrated a concentration dependent effect of *Sutherlandia* on several tumor cell lines, with 50% inhibition (IC₅₀) of proliferation of MCF7, MDA-MB-468, Jurkat and HL60 cells at 1/250, 1/200, 1/150 and 1/200 dilutions, respectively. *Sutherlandia* treatment did not induce HL60 differentiation along the macrophage/monocyte or granulocyte lineage. It demonstrated antioxidant activity in reducing free radical cations with an estimated activity of 0.5 microl of *Sutherlandia* extract equivalent to that of 10 microM of Trolox. However, it did not significantly suppress lipopolysaccharide stimulated nitric oxide production by murine macrophage/monocyte RAW 264.7 cells, nor did it significantly inhibit IL-1beta and TNF-alpha mRNA expression in RAW 264.7 cells. In conclusion, *Sutherlandia* ethanolic extract showed a concentration dependent antiproliferative effect on several human tumor cell lines but did not show significant antioxidant effects. Further studies are needed to explore the activities of this multipurpose South African herbal preparation.
