Traditional uses: 

*S. frutescens* was traditionally used throughout its natural distribution to treat the symptoms of flu during the 1918 influenza pandemic in southern Africa, and is still used to treat flu to this day. *S. frutescens* is generally regarded as the most beneficial of the medicinal plants in southern Africa, and has thus been used by all cultures including the San, Khoi, Sotho and Nguni-speaking people.

Furthermore, *S. frutescens* enjoys a long history as a highly valued component of African traditional medicine and some of the vernacular names used by local inhabitants in southern Africa reflects its importance. In Setswana it is called ‘petela’ which means ‘it changes’, implying that the plant changes the course of many illnesses towards a favourable outcome. The North Sesotho vernacular name ‘lerumalamadi’ means ‘the spear for the blood’ indicating that *S. frutescens* is a powerful blood-purifier and all-purpose tonic. The indigenous and contemporary uses of *S. frutescens* include: enhancing well-being, immune support, TB and AIDS, treatment for cancer (hence its common English ‘cancer bush’ and Afrikaans ‘kankerbos’ names)³.

Scientific studies:

The analgesic, anti-inflammatory and anti-diabetic effects of water extracts of *S. frutescens* have been reported⁴. Using an animal model, Kundu *et al* showed that *Sutherlandia* could inhibit phorbol ester-induced COX-2 expression. The hexane extract was shown to be the most active against *S. aureus*, *E. faecalis* and *E. coli* with MIC values of 0.31, 1.25 and 2.50 mg/ml respectively⁵. Ethanolic extracts of commercial preparations of *S. frutescens* have been reported to inhibit proliferation of malignant cells⁶. *S. frutescens* also inhibits enzymes involved in the human immunodeficiency virus (HIV) life cycle⁷. *Sutherlandia* promotes glucose uptake either by increasing insulin sensitivity at a cellular level or by substituting insulin itself, thereby alleviating the demand on β-cells⁸. Currently in vivo clinical trials involving human subjects are being done to assess safety and efficacy of *S. frutescens*. The chemistry of *S. frutescens* is complex and it is most probable that it is the combined effect of several phytochemicals (e.g. triterpenoids, amino acids and sugars), rather than a single key active that accounts for the efficacy of this coveted indigenous ethnomedicinal plant.

References:


Botany:

*Sutherlandia frutescens* and *S. microphylla* belong to the Fabaceae (Legume) family which is the third largest family of flowering plants. The two species are difficult to distinguish because they often grade into each other and some botanists consider them merely different forms of a single, large and variable taxon⁹. *S. frutescens* is a lax spreading shrub and approximately 1.2 m in height, with prostrate to erect stems, leaves compound pinnate with leaflets oblong to linear-elliptic, slightly to densely hairy, the latter silvery in appearance. *S. frutescens* flowers between July and December; the flowers are bright scarlet; fruits are inflated leathery pods, bearing a persistent upturned style and seeds are black and flattened. *S. frutescens* is widespread in the drier areas of the South Western and Northern Cape Provinces. The plant is also found in Botswana, Zimbabwe and Namibia².

S. frutescens

Geographical distribution (orange) of *Sutherlandia frutescens* in South Africa

Sutherlandia frutescens

Part 3: *Sutherlandia frutescens* (Cancer bush/‘Kankerbos’)

SA Pharmaceutical Journal – August 2007

49