

# Too much *kougoed* not so good, says SU researcher

If you want to chew the indigenous plant *kougoed* to calm you or make you feel less depressed, do so in moderation - don't indulge yourself indiscriminately.



Dr Carine Smith, Department of Physiological Sciences, Stellenbosch University says if you want to chew the indigenous plant *kougoed* do so in moderation. (Image courtesy: [www.plantzafrica.com](http://www.plantzafrica.com))

This is the advice of Dr Carine Smith, a researcher in, among other things, the effects of indigenous plants at the Department of Physiological Sciences at Stellenbosch University (SU). Dr Smith recently published research on the effect of *kougoed* in vivo on the psychological stress of rats in the *Journal of Ethnopharmacology*.

Her research shows, among other things, that too big an intake of *kougoed* can lead to diarrhoea and suppression of certain parts of the immune system.

## So-called benefits are untested

*Sceletium tortuosum* - traditionally also known as *kougoed* (literally, 'something to chew') or *kanna* - is a succulent-like ground cover that grows particularly in western and eastern South Africa, favouring quartzite soil. The Khoi, we are told, chewed or smoked *kougoed* or fermented it before use as a sedative with anxiety-alleviating properties and as a light anaesthetic for toothache.

"It's also traditionally used for constipation," Dr Smith adds. This effect may be due to the mesembrine alkaloid in the plant's leaves.

"So much of the information and so many claims about the benefits of *kougoed* that one finds on the internet and in books have never been tested scientifically with the appropriate controls - they're based simply on untested tales and anecdotes," she says.

"As in the case of any product with so-called healing properties, it's important to prove scientifically that people really benefit from it and that it's not just the placebo effect at play."

## Low daily dose has some benefits, but...

Dr Smith's studies show that dried *kougoed* has a limited positive effect on anxiety when taken in a low daily dose of approximately 5mg/kg body mass.

What concerns her, however, are the numerous negative effects that she has observed. When rats were given an increased dose of *kougoed* - 20 mg - they showed signs of, among other things, inflammation, diarrhoea and other forms of irritation of the alimentary canal. The immune system may also be suppressed by increased ingestion.

Dr Smith, who has already done considerable work on various indigenous plants, says that *kougoed* showed significantly more negative effects than did other natural substances, such as *Sutherlandia*, which she had tested before in the same way.

"It's absolutely essential that more research be done to determine the optimal therapeutic dose for *kougoed* and other indigenous products," she maintains. "There's a fine line between what's therapeutically good and what is, in fact, detrimental."

Dr Smith believes that too few scientific tests are generally done to determine suitable doses for natural herbal products.

"It can also be dangerous to use a product just preventively without your having a specific condition - in that case, the product could have a non-desirable effect," she warns. It is important to find out as much as possible about all the effects of a substance and of the effects of product preparation before starting to take it indiscriminately over a long period.

### Notes:

- This press release is based on the scientific article "The effects of *Sceletium tortuosum* in an *in vivo* model of psychological stress", published in the *Journal of Ethnopharmacology* 133 (2011) 31-36.
- Dr Smith did her research on rats; the results of studies done on rats generally compare well when used as a simulation of how it would apply to people.
- The research was done on dried plant material typically found in the veld, not on the processed, fermented products that can currently be bought over the counter in the USA, among other places.
- The website [www.plantzafrica.com](http://www.plantzafrica.com) describes the ground cover *Sceletium tortuosum* as a 'perennial succulent herb'. It bears small white, light-yellow, or salmon-coloured flowers with very thin petals between July and September. For more information on the plant and its uses, go to [www.plantzafrica.com/medmonographs/scelettort.pdf](http://www.plantzafrica.com/medmonographs/scelettort.pdf).

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