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## Medicinal Plant Images

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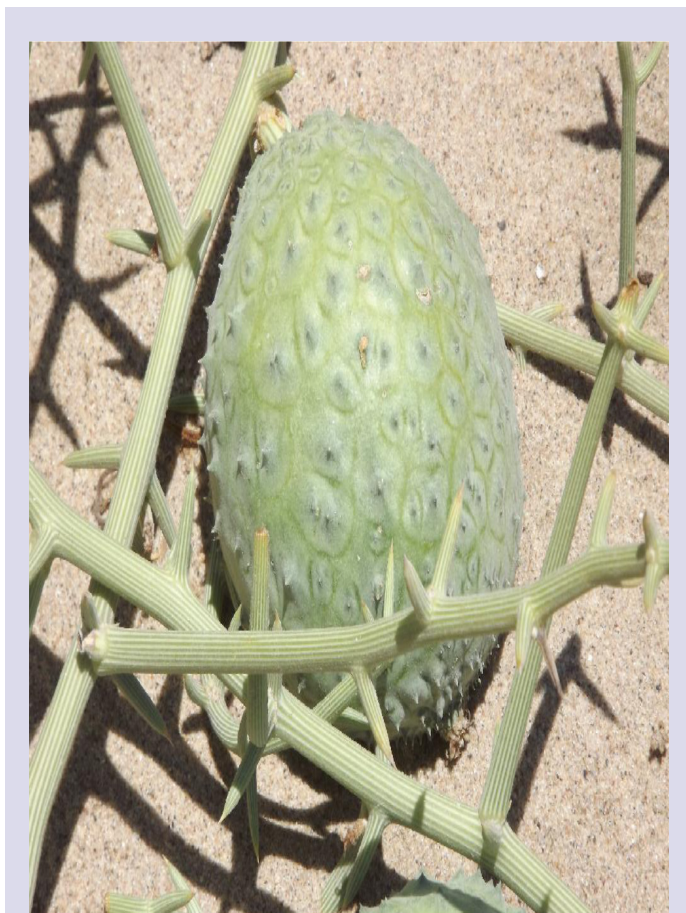
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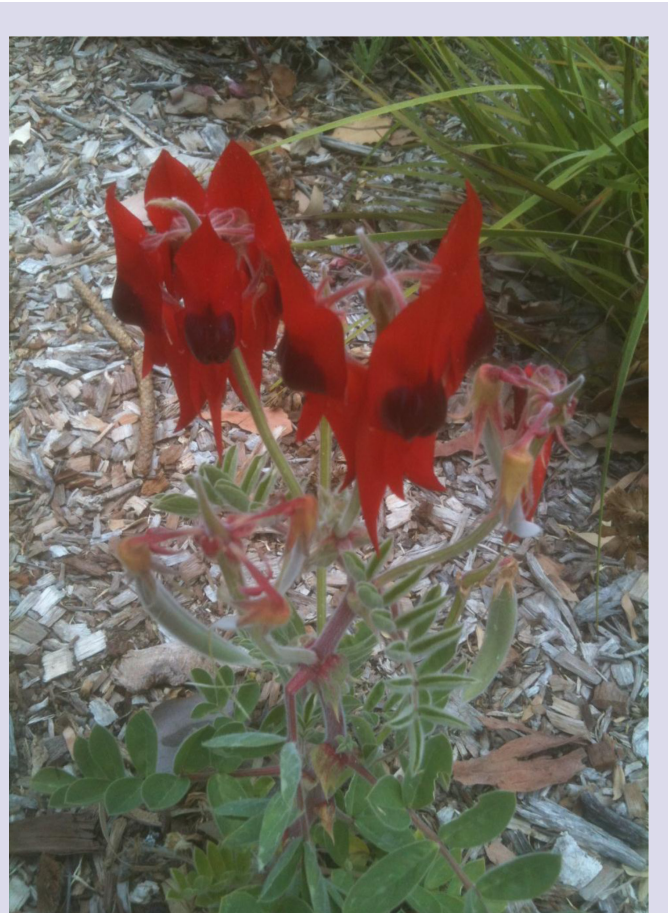
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**Figure 1:** *Acanthosicyos horridus* (commonly known as nara melon)

*Acanthosicyos horridus* (commonly known as nara melon) is a member of the watermelon family that grows most prevalently in the coastal regions of the Namib desert, Namibia. It also occurs as far south as Northern Cape province in South Africa and as far north as southern Angola. The fruit can be eaten raw although it contains cucurbitacins (which irritate the mouth) and was traditionally eaten dried. The nuts inside the fruit have been a staple diet of the Topnaar people of the Namib Desert for millennia.<sup>1,2</sup> Nara also has uses in traditional medicine. The fresh fruit is used to relieve stomach pains, oils from the seeds are used to protect from sunburn and as a moisturiser, and a decoction of the roots is used in the treatment of a wide variety of ailments including nausea, stomach disorders, STI's, kidney disorders, arteriosclerosis, wounds and chest pains.<sup>1</sup> This photograph was taken in the Namib Desert near Walvis Bay, Namibia in December 2012 by Dr Ian Cock.



**Figure 2:** *Swainsona formosa* (G.Don) Joy Thomps.

*Swainsona formosa* (G.Don) Joy Thomps. (family Fabaceae; synonyms *Clianthus formosus* (G.Don) Ford & Vickery, *Clianthus dampieri* Lindl., *Clianthus oxleyi* A.Cunn. ex Lindl.; commonly known as Sturt's desert pea) is a low growing or prostrate legume which is endemic to arid inland regions of the Australian continent. Several *Swainsona* spp. were used by Australian Aborigines as traditional medicines.<sup>3-4</sup> *Swainsona galegifolia* (Andrews) R.Br. and *Swainsona pterostylis* (DC.) Bakh. f. were considered particularly useful as antiseptics and as bactericide chemotherapies against a broad spectrum of bacterial pathogens.<sup>3-4</sup> A recent study has also reported bacterial growth inhibitory activity for *S. formosa* leaf extracts against wide range of gram positive and gram negative bacteria.<sup>5</sup> A defining phytochemical characteristic of many *Swainsona* spp. is the presence of the indolizidine alkaloid phytotoxin swainsonine.<sup>6</sup> Swainsonine has been associated with livestock intoxication via inhibition of

the enzymes  $\alpha$ -mannosidase and mannosidase II, which are required for processing and maturation of N-linked oligosaccharides of newly synthesised glycoproteins. To date, most interest in the therapeutic properties of swainsonine have focussed on its potential as a cancer chemotherapeutic drug via a reduction of tumour cell metastasis, decreased proliferation and enhanced cellular immune responses.<sup>7</sup>

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