

The *Hoodia gordonii* project

Ralph Peckover

A brief item in the CactusTalk section of the March 2012 issue of *CactusWorld* on the fat-fighting properties of *Hoodia* has elicited a very interesting response together with some pictures. I have decided to reproduce the text as received, in the form of a personal correspondence and hope that this will encourage similar contributions on a variety of topics, from other members. Photography by the author.

Dear Al,

I read with fond memories the short snippet about the demise of the *Hoodia gordonii* project and decided to reply with some photos and info. I was approached at the end of 1996 by the CSIR (Council for Scientific and Industrial Research of South Africa) to determine if I was willing to cultivate hoodias on a large scale (we have a small nursery and I was already cultivating a few species for collectors at that time) as the plants first had to be shown to be able to be grown easily and farmed before they could sell on the licence to a prospective client, namely Pfizer, for pharmaceutical use as an appetite suppressant. The CSIR first performed trials on



Fig. 1 Komsberg farm, Namibia



Fig. 2 Seedling house at Klein Pella

rats, and these were positive for suppression of appetite (maybe due to the bitter taste!) The licence was initially sold to Phytopharm in Godmanchester, UK, where they also did trials, this time with dogs, and a very good appetite suppression was noticed (I heard later that trials for dogs had to be stopped as the double dose caused the dogs to stop eating completely).

Getting back to the growing of hoodias; I travelled the length of South Africa and Namibia obtaining samples of different species of *Hoodia* during 1997 and onwards, in order to test for the active ingredient, called P57 (Phytopharm project No. 57). I entered into an agreement with



Fig. 3 Flowering plants in the Northern Cape



Fig. 4 Part of a planting of thousands at Kakamas

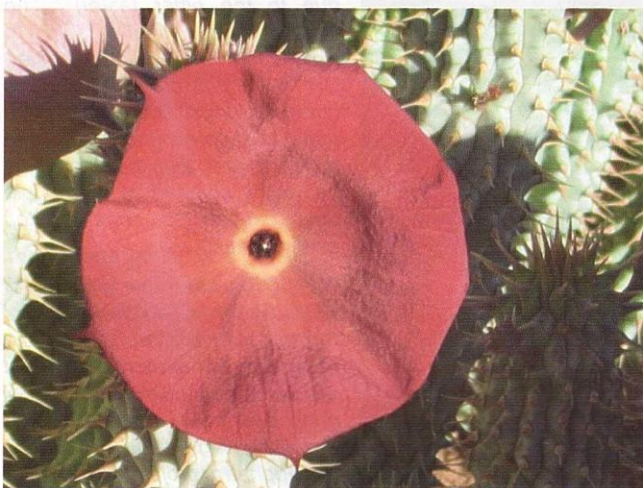


Fig. 5 A beautiful red flower from the planting at Onseepkans

the CSIR and produced a hothouse full of healthy hoodia plants. Once the Research and Development person from Pfizer arrived, the licence was signed and I was on the permanent staff of the CSIR for seven years researching Hoodia species. We performed trials looking at spacing, irrigation, herbicide, fertiliser, pesticide and fungicide as this plant had never been grown commercially like any of our other crops. Trials were performed to measure growth rates, the active ingredient content and look at regrowth after pruning back to the crown. Experiments were also undertaken to see how the plants could be stressed in order to maximise the active ingredient.

After the initial trials at my plot outside Pretoria we then needed to expand; this was still at the time of Pfizer, and I (representing CSIR) went to the Northern Cape Province to look for potential farmers. These were identified and the larger trials and plantings got under way. Around seven years ago Pfizer merged with another pharmaceutical company and a decision was made to discontinue the Phyto medicines and the project was handed back to Phytopharm. On tender, Unilever bought into this venture for what I heard was 20 million US dollars and again we (CSIR) started expanding with new farmers. At one stage it was determined that we would need around 4000ha of irrigated land growing Hoodia to satisfy the demand (mostly in America where obesity is very common), but at the end of August 2008 there was only around 250ha of planted area in South Africa and a project in Namibia of around 100ha. These plantings were all under drip irrigation. My work at that time was to visit the sites to check if the horticultural aspects of cultivation were satisfactory and to give advice why some plants were just withering up and dying.

During November 2008, the press release (salient part included below) put an instant stop to any further work and the projects were all wound down and closed. The Hoodia project as mentioned in the press release has not been taken any further (as detailed in *CactusWorld* 30(1): 53). Compensation was given to all farmers for any costs incurred so they did not lose anything. To be involved in probably the largest succulent experiment ever undertaken was a once in a lifetime experience which I do not think will come my way again.

Regards

Ralph Peckover

Phytopharm press release – 14 November 2008

Hoodia Extract

The Company is in discussions with Unilever, its partner for the development of *Hoodia* extract as a functional food targeting weight management, with a view to mutually terminating their agreements. Unilever and Phytopharm originally signed a licence and joint development agreement of the development and commercialisation of *Hoodia* extract in December 2004. *Hoodia* extract is a novel appetite suppressant that has been shown to reduce caloric intake in overweight subjects, as previously announced by Phytopharm.

Data from a recent clinical study using *Hoodia* extract in a drink-based product have led Unilever to conclude that it is unsuitable to be taken forward by Unilever. As a consequence, the parties are discussing the terms of termination. Phytopharm believes, however, that the pre-clinical and clinical data of *Hoodia* extract encourage further study of *Hoodia* for obesity, as well for pharmaceutical and veterinary applications.

Alistair Taylor, Chairman of Phytopharm, commented: "Over the past four years we have generated a considerable body of pre-clinical and clinical data on *Hoodia* with Unilever. Whilst *Hoodia* has not been found to be suited for a Unilever branded product, we have compiled a substantial dataset which will allow us to explore alternative product formats for the commercialisation of *Hoodia*. We will now take further steps to build on this foundation and seek other partners to further develop *Hoodia* and bring this exciting opportunity to market."

Footnote:

John Pilbeam referred in his book '*Stapeliads*' (page 7) to the use of *H. gordonii* by Bushmen as an appetite suppressant during lengthy hunts for prey. However he warned that few tests on its safety and effectiveness had been carried out on humans and that there might be side effects, including even liver damage.

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Fig. 6 Orange flower, Raap en Skraap

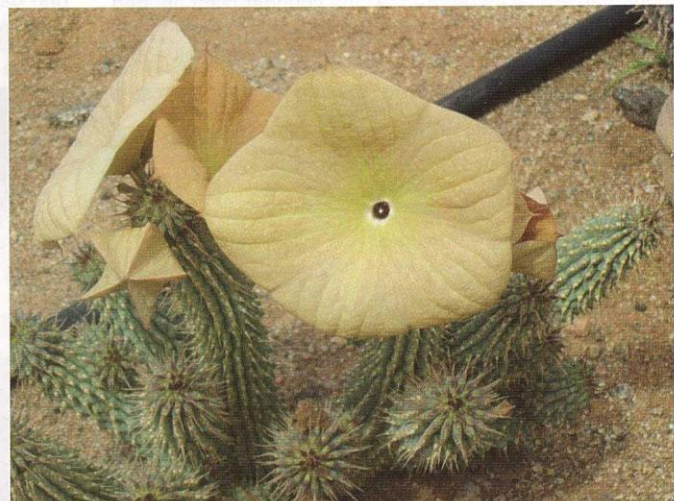


Fig. 7 Yellowish flower from Raap en Skraap



Fig. 8 Peachy coloured flower from Raap en Skraap plantings