

# Propagating Medicinal Plants to Conserve Natural Populations and Sustainable Supply for the Traditional Healing Community in South Africa<sup>®</sup>

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**What is a weed? A plant whose virtues have not yet been discovered.  
—Ralph Waldo Emerson (1803–1882)**

## INTRODUCTION

For thousands of years, before the advent of modern allopathic medicine, indigenous people on all the continents on earth practiced traditional medicine. Each ethnic grouping developed a system of healing in which they interwove the natural resources, plants, animals, and geology existing in their area with their cultures and belief systems.

Collectively we now refer to these historic systems of healing as “Traditional and Indigenous Medicine.”

For a while it seemed as if the genesis of modern, western medicine was leading to the demise of many of these systems of healing. The West with its commitment to scientific methodology, considered traditional healing simple superstition.

However, given the movement towards natural living that has been taking place in recent years, a new feverish interest in the art of traditional and alternative healing has developed. Traditional healing systems all over the globe are now being studied with great interest by western scientists.

During the nearly 100 years in which modern pharmaceutical development dominated the Western healthcare environment, 65% to 80% of the world's population continued relying on traditional medicine as their principal form of health care (The World Health Organization).

In South Africa, Africa as a whole, and many other developing countries of the world traditional healing is flourishing. It is financial, cultural, and geographical barriers to modern allopathic medicine that motivate people to visit traditional healers. Though it is clear that many of the traditional healing practices are not able to restore health according to any scientific understanding of healing, people's belief in these systems is what keeps them popular.

Many self-terminating diseases would heal naturally without medicine, traditional or otherwise. People, however, need the attention, caring environment, and rituals to lead them on their path to recovery.

In South Africa, as in most African countries, population numbers are rising steadily. As the number of people using indigenous medicine increases so does the pressure on the natural populations of plants from which the medicine is brewed. It has therefore become one of our national priorities to prevent the extinction of these species of medicinal plants. Saving these species is relevant from a conservation perspective, but it is also important that the plants will continue to be available for medicinal consumption.

## SOUTH AFRICAN MEDICINAL SPECIES

At Pico-Gro research is being done on the propagation of a range of medicinal species. Some of the taxa being researched are used in indigenous medicine and others are for the growing market in phyto-medicine in Western countries.

***Siphonochilus aethiopicus***. African ginger is a rhizomatous plant occurring on forest floors. Stock is currently being built via tissue culture techniques and vegetative division. The aromatic roots, smelling distinctly like ginger, have been used for a range of medicinal and traditional purposes by the native South African people. It is used by the Zulu people as a protection against lightning and snakes. The rhizomes and roots are chewed fresh to treat asthma, hysteria, colds, coughs, and flu.

***Helichrysum aureonitens* and *Helichrysum psilolepis***. *Helichrysum* was named for the sun (*Helios*) and can be found all over the globe, represented by more than 600 individual species; 245 of these occur in Southern Africa. Various species in this genus are used for medicinal purposes in Africa, Europe, and North America.

The work done at Pico-Gro focuses on a few species from Southern Africa, reported to have anti-viral and anti-bacterial activity. Mother plantations of different taxa are established by rooting of vegetative cuttings.

***Elephantorrhiza elephantina***. This plant with its corklike underground caudex is believed to cause visionary and prophetic dreams and help an individual to connect with ancestor spirits. Extracts of the rhizome are used as a treatment for general stomach ailments and for skin conditions and acne. Propagation of this plant is currently done with seed and tissue culture techniques are under investigation.

***Pelargonium sidoides***. This plant has a thickened root that is used for the treatment of respiratory bronchial and other upper airway problems. Indigenous populations have made use of this plant for many years. The market for Western alternative medicine is also interested in this plant since its efficacy in the treatment of upper airway infections had been verified by modern science. It has anti-viral, anti-microbial, and immune-boosting properties that helps reduce the symptoms of respiratory infections, colds, sore throats, and sinusitis and prevents secondary infections such as chronic bronchitis.

Great success is achieved with the propagation of this plant from seed, root cuttings, stem cuttings, and even leaf cuttings.

***Sceletium tortuosum***. *Sceletium* is a ground hugging succulent that have been in use by the Hottentot population in Southern Africa for hundreds of years. Its primary attribute is its ability to enhance the mood and help to relax a person chewing on its leaves. Propagation of this plant is mainly vegetative. Experimental work with seed propagation is also under way.

Many of the plant species in use by traditional healers has been proven by modern science to contain active ingredients that are able to lesson symptoms, shorten infection times, and sooth patients during treatment. Others have been found not to contain active ingredients and the healing that follows on its use can only be attributed to the placebo effect.

From a conservation perspective, however, it is irrelevant whether the plants used by traditional healers are effective or not. What matters is that these plants should not become extinct because of there use in healing. For this reason high intensity propagation needs to take place to augment natural populations and to

establish plantations where these plants can be grown for supply to healers for future consumption.

#### **ADDITIONAL READING**

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