

# Spotlight on Agriculture

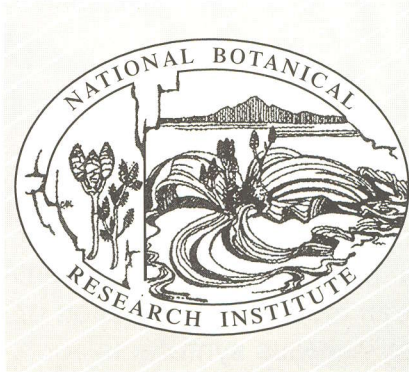
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## HELICHRYSUM

### A MULTIPURPOSE PLANT OF MAJOR ECONOMIC IMPORTANCE IN NAMIBIA



#### INTRODUCTION

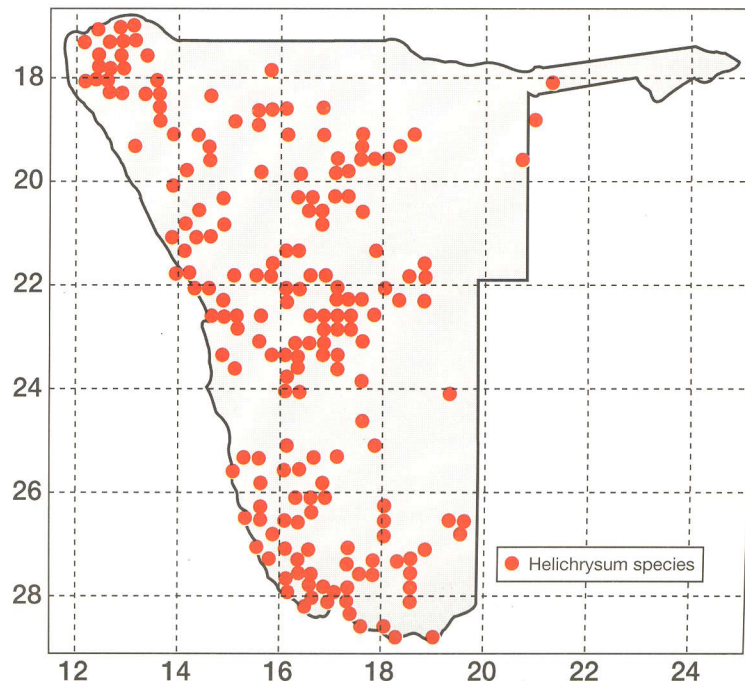
The National Botanical Research Institute actively undertakes research to promote the development and sustainable use of our indigenous flora to the benefit of the Namibian people. A comprehensive research programme has been initiated to identify plant taxa displaying properties which merit further investigation and development. A multipurpose taxon, like the genus *Helichrysum*, is an obvious candidate for further research activity.

#### THE GENUS HELICHRYSUM

*Helichrysum* Mill. is a large group of plants that includes annuals, herbaceous perennials and shrubs. The generic name *Helichrysum* is a description of the golden-yellow flowers (*helios* = sun and *chrysos* = gold in Greek), which are arranged in homo- or heterogamous flowers. Plants of the genus are widely distributed. While over 500 have been described for Africa, the latest assessment undertaken by the National Herbarium indicates that 27 species occur in Namibia. The local people in Namibia possess a wealth of information regarding its domestic and medicinal uses, and the toxicity of *Helichrysum* is well documented.

#### HABITAT AND PHENOLOGY

*Helichrysum* species are widely distributed throughout Namibia (see map). The plants prefer hot, dry and sandy habitats, but often grow in stony and even sometimes moist places. They are commonly found on disturbed grounds such as roadsides and cultivated land or along railway lines. Whenever an area is heavily overgrazed, *Helichrysum* species may become abundant. This composite (member of the daisy family - *Asteraceae*) flowers throughout the year, but mostly from July to November.



Distribution of Namibia's *Helichrysum* species

## HELICHRYSUM SPECIES WITH MEDICINAL PROPERTIES

In Namibia *Helichrysum tomentosulum* (Klatt) Merxm. subsp. *tomentosulum* is best known for its medicinal properties. The entire plant is placed onto glowing coals by the Kwanyama people to then be waved over sore body parts. Indigenous people also use this composite against tooth ache. Twigs are ground into a fine powder, mixed with water and the resulting solution is used as a mouthwash. The substances causing these healing effects are not yet known and have still to be identified. In other parts of the world *Helichrysum hydrosol*



*Helichrysum tomentosulum* (Klatt) Merxm.

is one of the most powerful anti-inflammatory essential oils, and an essential component in roseacea and bruise blends. This oil is sold in homeopathic gift shops. Other species are recorded to cure a multitude of ailments ranging from asthma to depressions in Africa. Similar curative properties may be discovered in the Namibian species following extensive surveying and screening.

## TOXIC EFFECTS

To date only one specie in Namibia has tested positive for toxicity, namely *H. argyrosphaerum* DC. The plant, commonly known as "Wild everlasting" or "Sewejaartjie", is often responsible for the poisoning of cattle, sheep and goats, causing significant financial losses for the Namibian livestock producers. Although this plant can be excellent fodder for antelope, cattle and especially sheep, blindness can result from ingestion of large quantities. The blindness is sometimes accompanied by nervous symptoms such as ataxia, circling, chorea of the head and neck muscles, stargazing, nystagmus, paresis and paralysis (P.A. Basson *et al.*, 1988). The toxin has not yet been identified, but the plant appears to reach the highest toxic levels during flowering (July - November). It appears that outbreaks of the disease have been restricted to Namibia, although the plant is widely distributed in southern Africa.

## DOMESTIC PROPERTIES

*Helichrysum* species in general are very well known for their **horticultural potential**, with the annuals being the most popular. The cutting and drying of their flowers for winter decoration is a lucrative business elsewhere in southern Africa. Namibia has several attractive species which can be used for that purpose, e.g. *H. roseo-niveum* Marloth & O.Hoffm. Prostrate species could also be promoted as attractive ground covers for waterwise gardens in Windhoek and other centres threatened by possible water shortages in the future.

The **agricultural potential** of *Helichrysum* can also not be underestimated, and various species have been observed to be grazed by stock animals without any toxic effects and can be subsequently advocated as fodder plants, e.g. *H. zeyheri* Less. and *H. herniarioides* DC. The potential to cultivate these species on a large scale still needs to be investigated.

## CONCLUSION

*Helichrysum* species are a typical example of plants that are often overlooked as insignificant or alternatively regarded as troublesome weeds. Surveys, however, reveal that this group represents an unexploited potential for economic benefit for Namibia which could be harnessed following appropriate development and marketing research.

### Bibliography

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