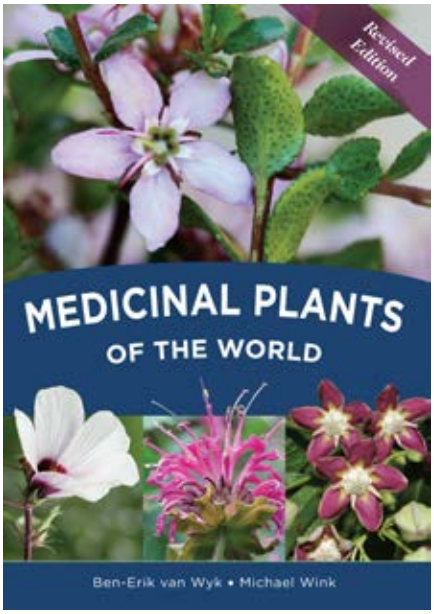
Medicinal Plants of the World
Revised Edition



Medicinal plants and plant-derived medicine are widely used in traditional cultures all over the world and they are becoming increasingly popular in modern society as natural alternatives to synthetic chemicals. As more and more natural remedies are being commercialised, there is a need for a user-friendly reference guide to the plants and their products.

The book gives the reader a bird's eye view of more than 350 of the best-known medicinal plants of the world and their uses, in a compact, colourful and scientifically accurate reference text. It provides quick answers to the most obvious questions: Where does this plant originate? What does it look like? In which culture is it traditionally used? What is it used for? Which chemical compounds does it contain? How safe is it? What is known about its pharmacological activity? What evidence is there that it is effective?

The authors also provide short overviews of the various health conditions for which medicinal plants are used and the active compounds (secondary metabolites) found in the plants and their modes of actions.

An illustrated, scientifically accurate guide to 350 of the most important medicinal plants – now updated with the latest regulatory information, additional species and new photographs

Hyoscyamus niger
henbane

Hyoscyamus niger Hyoscyamus muticus Hyoscyamus albus

Description Henbane is an annual or biennial herb of up to 0.5 m in height, with soft hairy stems bearing pale green, lobed and hairy leaves. The calyx is bell-like and toothed, and the petals are greenish yellow with dark purple veins towards their bases. Less commonly used are European henbane or white henbane (*H. albus*) and Egyptian henbane (*H. muticus*). The latter occurs from Egypt to Iran, has a relatively high alkaloid content of up to 1% or more and is therefore used as a commercial source of tropane alkaloids.
Origin Europe and Asia (*H. niger*). The plant is a common weed of disturbed places and is naturalised in North America.
Parts used Leaves (*Hyoscyami folium*). Seeds (*Hyoscyami semen*) or roots (*Hyoscyami radix*) are also used to some extent.
Therapeutic category Antispasmodic, narcotic.
Uses and properties Henbane leaf and the isolated hyoscyamine (and atropine, its racemate) are used in modern phytotherapy mainly to treat spasms of the gastrointestinal tract. It is sometimes included as a sedative in herbal mixtures and combination products. The leaves were formerly smoked to treat asthma (hyoscyamine has bronchodilatory effects), in the same way as *Atropa* leaf or Datura leaf. Henbane has a long and interesting history (as a narcotic, e.g. during surgery, and as hallucinogen in witchcraft). It has been used since ancient times to treat pain, toothache and nervous disorders such as mania and hysteria.
Preparation and dosage Standardised henbane powder (containing 0.5–0.7 mg total alkaloid) and pure hyoscyamine are used. Recommended daily dose: 3 g of powder (1.5–2.1 mg total alkaloid); maximum single dose: 1 g of powder (0.5–0.7 mg total alkaloid).
Active ingredients The active compounds are the tropane alkaloids hyoscyamine (the major component) and scopolamine (also in high yield). Alkaloids occur in concentrations of 0.04–0.13% of dry weight in the leaves and up to 0.3% in the seeds.
Pharmacological effects Tropane alkaloids are parasympatholytics and have a spasmolytic and sedative effect on the central nervous system (see details under *Atropa* and *Datura*). Cases of accidental or deliberate poisoning are rare.
Status Trad. medicine; modern medicine: atropine, scopolamine; Pharm.; clinical studies.

Hyoscyamus niger L. family: Solanaceae
jusquiame noire (French); Bilsenkraut (German); giusquiamo nero (Italian); solelo negro (Spanish)

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Devil's claw (*Harpagophytum procumbens*) in the Kalahari desert

Gum of mastic (*Pistacia lentiscus*) is used in dentistry

Sassafras (*Sassafras albidum*) is a traditional North America herbal tea

tobacco). Another system combining the best of Native American and European herbal medicine was Eclecticism, proposed by Wooster Beech around 1830. At the turn of the 19th century, several thousand health care professionals were following the eclectic approach. Between 1850 and 1900 a boom period developed, marked by the Physiomedicalists movement and the popularisation of now famous plants such as echinacea (*Echinacea purpurea*) and goldenseal (*Hydrastis canadensis*). The influence of this period is still evident in Britain, where many North American plants are popular to this day.

During most of the 20th century, herbs (or botanicals as they are referred to in the USA) have been regarded with scepticism and the practise of herbal medicine went into decline. Plants were viewed mainly as a potential source of pure chemical compounds for medicine development. In recent years, however, herbs and botanicals have become very popular in the USA and Canada but are still regarded by many as nutritional supplements rather than medicines in their own right.

Central and South American traditional medicine

In common with Africa, the rich but diverse healing cultures of this region are poorly recorded but will undoubtedly be a source of many new herbal remedies in the years to come. South and Central America is one of the most important cradles of agriculture and a large number of crop plants (including maize, potatoes, tomatoes, pumpkins, cassava, peanuts and sweet potato) originated here. Rural people in countries like Mexico, Cuba, Chile, Guyana, Peru, Ecuador, Bolivia, Venezuela, Brazil and Argentina still use traditional Indian herbal medicine but Spanish, European, Indian and African influences are evident. Examples of famous medicinal plants are *Cinchona pubescens* (Peruvian bark), *Erythroxylon coca* (coca), *Handroanthus impetiginosus* (lapacho), *Ilex paraguariensis* (maté), *Myroxylon balsamum* (Tolu balsam), *Paullinia cupana* (guaraná), *Peumus boldus* (boldo), *Psidium guajava* (guava), *Spilanthes acmella* (Brazilian cress) and *Uncaria tomentosa* (cat's claw).

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SALES POINTS

- A comprehensive, fully illustrated guide to medicinal plants that will appeal to a broad range of readers
- More than 800 full-colour photographs
- Superior quality text and photographs and excellent reproduction and printing
- Rights to the first edition were obtained by the USA, Canada, UK, Germany, Poland, Australia, New Zealand and Southeast Asia with translations into German, Korean and Polish

READERSHIP

Anyone interested in plants who may want to use the book as an illustrated encyclopaedia, students of botany and pharmacology, health care practitioners, pharmacists and doctors

FEATURES

- Wide coverage, with monographs of 350 well-known medicinal plants and a further 900 plants listed in a summary table of medicinal plants
- Includes an overview of the active ingredients in medicinal plants and the various health conditions that are treated with medicinal plants
- This new edition has an additional 30 plant species, many new and improved photographs and the text has been fully updated to reflect the latest regulatory status of each plant

SPECIFICATION

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E-mail: books@briza.co.za • **Website: www.briza.co.za** • Bookshop: 121 Soutpansberg Road, Riviera, Pretoria, RSA