

## Turning folklore into an ethnomedicinal catalogue

*Medicinal Plants of South Africa* (2nd edition). By B-E. van Wyk, B. van Oudtshoorn and N. Gericke. Pp. 366. Briza Publications, Pretoria, South Africa, R329.00. Hardcover, ISBN 978-1-875093-37-3. 2009.

Medicinal plants in South Africa contribute to both the health and livelihood of many indigenous populations. The study of ethnobotany in the country is important not only as a means to preserve indigenous plant knowledge, but also to serve the natural products economic sector. The significance of *materia medica* in South African society remains an inherent part of many cultures, with an estimated 70% of the population using plants for medicinal purposes.

It is a mammoth undertaking to attempt to summarise medically used plants in South Africa, as reports indicate that over 4 000 species are ethnobotanically significant, with some 3 000 plants being medicinally useful. The culture of plant use is not driven only by the incredible biodiversity which exists in southern Africa where three of the world's 'biodiversity hotspots' (the Cape Floristic Region, the Succulent Karoo, and the Albany-Maputaland corridor), are found, but also by the coexistence of diverse ethnic groups, their associated beliefs and practices. To attempt to deal with this colossal undertaking, the authors have included only key species which are used by different South African cultural groups. The introductory sections cover the importance of medicinal plants and associated aspects of cultural healing in the South African context. Methods relating to collection; parts of the plant used; dosage and storage, administration of plants and extracts and the active ingredients are similar to the first edition of this book, which appeared in 1997.

The authors have added 18 new plant monographs so that 150 species are now covered in detail. Some of these plants deserve special mention, such as *Pelargonium sidoides*. Apart from extensive chemical analysis of its properties, current studies focus on the socioeconomics and poverty alleviation strategies associated with trade of this species; the development of cultivation regimes to establish it as a crop; the ecological and conservation-driven assessment of wild populations; and clinical trials. Commercial extracts of this plant have now been prepared, resulting in it being listed in the *European Pharmacopeia*.

The inclusion of distribution maps in the new book is important, both for those intending to locate these plants; and to highlight the regions where they may

have greater use to the local people. The book also now includes some of the commercialised plants which have led to a vibrant and growing formal herbal industry (for example *Aspalathus linearis* and *Cyclopia genistoides*). These are welcome additions, as the trade of *A. linearis* (otherwise known as 'rooibos') is an important contributor to the South African natural products economy. Another improvement is the highlighting of the conservation status of medicinally important plants, for example *Warburgia salutaris*. Other changes relate to updates in taxonomy and name changes, such as *Sutherlandia frutescens* is now regarded as *Lessertia frutescens*; *Merwillia* which was previously classified as *Scilla*; and *Aptenia cordifolia*, now known as *Mesembryanthemum cordifolium*. In some cases, where plants have been commercialised, examples of commercial products are reflected in the accompanying figures. In many instances, floral parts which assist with species identification and underground parts (corms; bulbs; tubers which are often used for preparation of medicines) are shown. Especially with trees, their significance is not limited to medicinal use but their role in other industries, such as for woodwork (for example *Ptaeroxylon obliquum*), is also outlined. The authors in such cases show a photograph displaying the type of wood which may be prepared from the bark.

The format of the previous edition is maintained, with each plant monograph laid out on a single page, which includes a botanical description and distribution map; and summaries of plant parts generally used, their medicinal uses and preparation, as well as their active ingredients and pharmacological actions (where appropriate). This book is written in an engaging style and is illustrated by colour photographs that are of excellent quality. Finding a species of interest is made easy through the use of both scientific and vernacular names. The book has a wide-spread appeal, providing lay persons with a taste of the traditions associated with medicinal plant use within the country. Ethnobotany has become fashionable in South Africa and at this stage there are no indications of its popularity beginning to wane. This is partly evidenced by an ever-growing collection of literature which has been published since the mid- to late 1990s. Many of the research papers

emanating after publication of the first edition of this book cite it as a reference.

Recently, increased ethno-pharmacological endeavours have led to the isolation and subsequent identification of chemical constituents in many South African medicinal plants. Incorporation of this information is one of the features which make this edition superior to its predecessor. The authors have thus drawn on new knowledge which has been acquired through scientific efforts directed at validating traditional uses through providing pharmacological evidence for the efficacy of plants as medicines. In general, this has led to a better understanding of medically significant plants in South Africa, although our current understanding is by no means complete. The book offers a comprehensive insight into a wide flora which is intimately linked with physical wellbeing and psycho-spiritual rituals in this country. This will surely be a platform for new work, both on the species already covered and on those that have been excluded from the collection. Such revisions are essential to maintain and stimulate research activities. Linked to this, the documentation of plant use in South Africa is crucial, as indigenous knowledge on medical plants is historically maintained orally from one generation to another. This knowledge is at risk of being lost as a result of continued urbanisation and acculturation, which began over 300 years ago with the arrival of European settlers. Many acknowledge that there is still a paucity of detailed documentation of ethnobotanical knowledge and the extent to which modernisation, particularly increased migration into urban centres by rural dwellers, is leading to its erosion. Other factors influencing the way in which medicinal plants are used, are linked to lifestyle diseases such as diabetes, hypertension and HIV/AIDS (to a name a few) which have become more prevalent in contemporary South Africa.

The first edition was a well-loved and a salient reference, but, a revised edition was overdue after more than ten years since its publication. The second edition will continue to fulfil this function for a wide range of users of medicinal plants, from patients and *sangomas* to scientific researchers. It can be used as a field guide, and is written in a style that is accessible to a wide audience that may not be scientifically inclined.

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