

HERBAL PLANTS

TUMBUH-TUMBUHAN
HERBA
Tradisional
di Malaysia

Dual Language / Dwi Bahasa

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PREFACE



In the name of Allah, most benevolent, ever merciful

SEGALA puji-pujian bagi ALLAH S.W.T serta selawat dan salam kepada junjungan besar Rasulullah S.A.W berserta keluarga dan para sahabatnya.

Alhamdullilah... thanks to Allah S.W.T for the sake of His abundant gifts, I have successfully completed the Traditional Herbal Plants of Malaysia book, bilingually published for the convenience of the readers.

The applications of herbs or medicinal plants used in traditional treatment and general well-being has been practised in recent years. An extremely dramatic increase in the number of phytotherapeutical products can be observed from various traditional medicine systems around the world. The awareness in marketing such products has substantially increase and begin to enter the commercial markets particularly in developing countries.. The World Health Organization estimates that 80% of the population of some Asian and African countries are currently using herbal medicine in some aspect as primary health care. Due to the extension of scientific evidences about the effectiveness of herbal medicines, the usage in clinical settings are lessened, based on studies conducted/reported in United States and Europe. Malaysia is one of the countries that have been blessed with massive living heritage of various herbal species. Out of this diversity, many have been scientifically proven to contain medicinal and healing properties. The practice of traditional medicine is common among various ethnic groups such as the Malays, Chinese, Indians and aborigines with the knowledge being inherited through the generations.

Plants have the ability to synthesize a wide variety of chemical compounds. These compounds, also known as phytochemicals are used to perform important biological functions, and act as repellent to deter attacks from insects, fungi and herbivorous mammals that

can cause further fatal allergic reactions. It is estimated that about 20% (3,000 species) of angiosperma and gymnosperma plant species in Malaysia have medicinal properties and have been used in traditional medicine preparation for a considerable time. In peninsular Malaysia alone, there are about 550 genera of tropical plants, containing over 1,300 species possessing medicinal values. At least 12,000 of such compounds have been isolated to date; estimated to be less than 10% of the overall number of compounds to be isolated in the future. Many of these phytochemicals have beneficial effects on long-term health when consumed by humans. It can also be used to effectively treat human diseases. In 1999, sales of herbal products worldwide had aggregated to US\$80 billion. The Malaysian market for herbal products, medicinal plants and aromatic plants was estimated at RM4.6 billion for the same year, with an annual growth projection of 15-20%. In 2001, researchers have identified 122 compounds used in modern medicine which were derived from plant sources. 80% of these compounds have the ethnomedical use identical to the current use of the active elements of the plants. Plant extracts contribute substantially in four major areas to human health and welfare as (i) foodstuffs, (ii) flavouring agents and spices, (iii) perfumes and cosmetics and (iv) pharmaceutical and biological agents.

This book comprehensively explains on how the active compounds of the traditional herbal plants in Malaysia were extracted and its applications. This book is suitable as a reference to all ages (primary, secondary, college, university) as it supplies and discusses on the latest studies held on the traditional herbs in Malaysia while covering all aspects of herbs.

I wish to express my unlimited appreciation to my beloved wife Dr Azilah Ajit, my kids Aqilah Batrisyia, Aqil Zaid Zaidan, Aqilah Zahirah Sofea and my family for their irreplaceable encouragement, undying love and prayers.

Above all, I thank God the almighty for his grace, mercy and guidance which enabled the successful completion of this book.



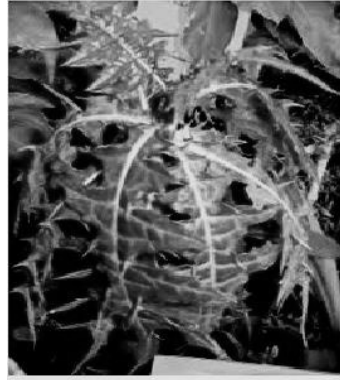
Dr Ahmad Ziad Sulaiman

1. **Local name**
Jeruju, Daruju

Nama
Jeruju, Daruju

2. **Botanical name**
Acanthus ilicifolius (Acanthaceae)

Nama saintifik
Acanthus ilicifolius (Acanthaceae)



3. **Origin**
Malaysia, Indonesia, Thailand, Australia

Asal
Malaysia, Indonesia, Thailand, Australia

4. **Part of plant used**
Leaves, Stem and roots

Bahagian tumbuhan yang digunakan
Daun, batang dan akar

5. **Nutraceutical and Pharmaceuticals Properties**
The dwellers of coastal areas use this plant traditionally to treat various inflammatory conditions including infected wounds, abscesses and rheumatism. The leaves are used in most cases whether in the form of a poultice or fomentation and at times in decoction. Fruit pulp is considered as a blood purifier and for the treatment of abscesses [1].

Fomentation of the leaves is used in the treatment of rheumatism and neuralgia as well as allied pain due to poisoned arrow. The fruit pulp, shoots or roots has been used to treat snakebites. The young leaves are boiled with the bark of

Cinnamomum culilawan as a remedy for flatulence. The juice of the leaves is used as hair preserver [2].

Ciri-ciri

Penduduk di kawasan pesisiran pantai menggunakan tumbuhan ini secara tradisional untuk merawat pelbagai jenis keradangan seperti luka, bisul dan rematik. Daunnya digunakan untuk tujuan yang sama dalam bentuk tuaman dan dalam rebusan. Pulpa buah boleh dianggap sebagai pembersih darah dan untuk merawat bisul [1].

Tuaman daunnya digunakan untuk rawatan rematik dan gangguan saraf serta sakit disebabkan sengatan binatang beracun. Pulpa buah, tunas atau akar digunakan untuk merawat patukan ular. Daun-daun muda direbus dengan kulit kayu manis sebagai penawar untuk kembung perut. Jus bagi daun tersebut juga digunakan sebagai perapi rambut [2].

6. Current research

A study on anti-carcinogenic activity of extracts of A. ilicifolius reported that the alcoholic extract of A. ilicifolius was effective in controlling tumor progression and inhibiting carcinogenesis of induced papilloma formation in mice. [3]. The methanolic fraction of A. ilicifolius leaf was found to significant for anti-inflammatory activity. It was found that the alcoholic extract of A. ilicifolius have strong antioxidant property. It inhibited the formation of oxygen derived free radicals (ODFR) in vitro. The methanolic fraction of A. ilicifolius leaf extract was found to have significant free radical scavenging activity (DPPH, ABTS, superoxide and hydroxyl radical) [5].

Kajian terkini

Satu kajian tentang aktiviti anti-karsinogen daripada ekstrak jeruju melaporkan bahawa ekstrak alkohol jeruju berkesan dalam mengawal tumbesaran tumor dan menghalang karsinogenesis akibat pembentukan papilloma pada tikus [3]. Kandungan metanol dalam jeruju didapati berguna untuk aktiviti anti-keradangan. Didapati bahawa ekstrak alkohol jeruju mempunyai sifat anti-keradangan yang kuat. Ia dapat menghalang pembentukan radikal bebas oksigen (ODFR) yang