

CHAPTER

5

HERBS FOR

PHYTOPHARMACEUTICALS

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5.1 INTRODUCTION TO PHYTOPHARMACEUTICALS

Phytopharmaceuticals have been integrated with traditional medicines across cultures for millennia. Traditional medicine has been practicing for centuries, mainly based on empirical observation. It continues to influence modern pharmaceutical research. It is believed that the integration of pharmaceuticals with phytochemicals would have better efficacy and lesser side effects. Furthermore, Malaysian herbs possess remarkable medicinal properties along with cultural significance. Therefore, there is potential to promote phytopharmaceuticals derived from Malaysian herbs. The market value of phytopharmaceuticals in Malaysia is also expected to grow gradually. There is a growing demand for safe, effective, and scientifically validated herbal phytopharmaceuticals, particularly those using advanced nanotechnologies to enhance product efficacy.

Phytopharmaceuticals encompass plant bioactive compounds such as alkaloids, flavonoids, terpenoids, and phenolics. The compounds exhibit significant pharmacological activities, ranging from analgesic, anti-inflammatory, antimicrobial to anticancer properties. The therapeutic potential is often attributed to their synergistic interactions

within the complex substances of plant extracts. Possibly, the herbal component of phytopharmaceuticals offers more holistic therapeutic effects with reduced side effects than the application of conventional drugs alone.

Malaysia supports the development of herbal products through several initiatives and policies including the National Herbal Policy. The National Pharmaceutical Regulatory Agency (NPRA) regulates herbal products and encourages research and innovation in traditional medicine. The current regulations are still evolving to address phytopharmaceutical technologies. Association of Southeast Asian Nations (ASEAN) harmonization has encouraged efforts to guide product standards and registration in facilitating market access within the region.

5.2 TRADITIONAL USES OF MALAYSIAN HERBS

Herbal medicine or sometimes called phytomedicine refers to the practical use of herbal plant material for medicinal purposes. The traditional use of Malaysian herbs encompasses practices and remedies passed down through generations within individual ethnic communities. Hence, herbal medicine composed of either raw or processed elements of one or more medical plants has always been applied as a healthy remedy for ailment treatment by local folks.

The World Health Organization (WHO) defines health as a complete physical, mental, and social well-being, rather than just the absence of illness or weakness. This definition aligns with traditional practitioners, who consider the holistic aspects of body-physical, mental, and spiritual. Approximately, 80% of the global population still relies on their traditional medical systems, despite the growing prevalence of allopathic medicine. Within this traditional system, illness is often attributed to stemming from social, spiritual, and psychological imbalances. The treatment typically involves natural and spiritual remedies that restore harmony in the individual systems. The herbal

medicine aims to restore the natural balance and facilitating self-healing using different herbs targeting at distinct body systems.

Malaysia is one of the countries from Southeast Asia known for its abundant flora and fauna, along with diverse cultures and practices influenced mainly by the traditions of Malay, Chinese, and Indian. Recently, the traditional knowledge and information for 64 herbal plants have been documented in Malaysian Herbal Monograph 2015. Some examples of Malaysian herbs and their traditional uses are listed in the Table 5.1.

Table 5.1 Traditional uses of Malaysian herbs

Herbs	Traditional Uses
Tongkat ali (<i>Eurycoma longifolia</i>)	Leaves are used to relieve itching, fruit are used in dysentery treatment, bark is commonly used as a vermifuge, the taproots are used to address high blood pressure, and the root bark is administered for diarrhoea and fever.
Kacip fatimah (<i>Labisia pumila</i>)	Aid in childbirth, alleviate post-partum, and regulate menstrual irregularities, paste made from the leaves and coconut oil is applied on baby's abdomen to relieve stomach discomfort, enhance reproductive health and sexual well-being.
Ginger (<i>Zingiber officinale</i>)	Use as a remedy for rheumatism, osteoporosis, asthma, and cough, effective in treating allergies, asthma, impotence, gout, dysentery, peptic ulcer, and diabetes.
Turmeric (<i>Curcuma longa</i>)	1) Treat asthma, gonorrhoea, helminthic diseases, and urinary tract disorders, 2) Turmeric tea helps in arthritis, diabetes, hepatitis, and irritable bowel syndrome, 3) Turmeric paste is a remedy for stabilizing blood sugar and cholesterol levels, and for detoxifying the liver.
Misai kucing (<i>Orthosiphon stamineus</i>)	Treat diuretic, renal stone, diabetes, abdominal pain, and hypertension.

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