

CHAPTER

3

HERBAL FOODS AND NUTRACEUTICALS FOR WELLNESS

*Effaliza Misran, Fitrien Husin,
Harisun Ya'akob, and Nurulkhairiah Azyyati Khairulanuar*

3.1 HERBAL FOODS AND NUTRACEUTICALS

Herbal foods and nutraceuticals play an important role in promoting health and well-being through their nutritional benefits and therapeutic properties. Herbal foods consist of various plant-based ingredients, especially herbs, spices, fruits, and vegetables, which are commonly used in culinary dishes and functional food products. Nutraceuticals, on the other hand, are bioactive compounds sourced from plants or produced through biotechnological methods, specifically designed to improve health and prevent diseases when consumed as supplements or functional food additives. Nutraceuticals are rich in essential components such as vitamins, minerals, antioxidants, and phytochemicals, offering a wide range of health benefits, including immune modulation, inflammation reduction, antioxidant protection, and cardiovascular support. These products are formulated to provide health advantages without causing any adverse effects. Nutraceuticals are well-known for their ability to offer

therapeutic effects beyond basic nutrition, significantly contributing to the optimal health and well-being.

The term “nutraceutical” is commonly used to refer to food or food components that offer medical or health benefits, including disease prevention and treatment. The most common example is catechin which one of the polyphenols from tea, which has remarkable antioxidant and anti-inflammatory properties. Nutraceuticals have gained recognition for their potent nutritional properties, therapeutic effects, and relative safety. They could be valuable sources for functional foods to improve human well-being. They at least modify and maintain normal physiological functions to support overall health and quality of life.

The concept of wellness in contemporary society has shifted from a purely medical model focused on the absence of disease to a holistic approach encompassing physical, mental, emotional, social and spiritual well-being. Wellness encompasses four main categories; physical wellness, mental wellness, emotional wellness, and spiritual wellness. Physical wellness involves achieving optimal health through regular exercise, proper nutrition, sufficient rest, and preventive healthcare measures. Mental wellness focuses on developing mental resilience, emotional intelligence, stress management skills, and fostering healthy coping mechanisms to support psychological well-being. Emotional wellness entails fostering positive relationships, self-awareness, emotional resilience, and seeking support when needed to maintain emotional balance. Spiritual wellness involves exploring existential questions, finding purpose, engaging in practices that promote inner peace, and aligning with personal values and beliefs. Social wellness revolves around cultivating meaningful connections, a sense of belonging, contributing to the community, and nurturing supportive social networks. Therefore, wellness reflects how individuals perceive their life quality and their capacity to function efficiently. This holistic view of wellness emphasizes the importance of conscious choices and actions to enhance vitality, resilience, and fulfilment.

3.2 DIVERSE HERBAL RESOURCES FOR PRODUCT FORMULATION

The botanical wealth of Malaysia is renowned for its vast array of flora, ranging from the lush rainforests of Borneo to the highlands of the Peninsula. The rainforests of Borneo are among the oldest and most biodiverse ecosystems in the world, harbouring a plethora of botanical treasures with unique therapeutic properties. These include plants such as tongkat ali (*Eurycoma longifolia*), kacip fatimah (*Labisia pumila*), and misai kucing (*Orthosiphon stamineus*), which are valued for their medicinal benefits and are integral to traditional healing practices. The herbal resources in Malaysia encompass numerous plant species with significant potential for health and wellness benefits. Many of them have not been discovered for their medicinal properties.

The herbal wealth extends to plants like limau purut leaves (*Citrus hystrix*), butterfly pea (*Clitoria ternatea*), and lemongrass (*Cymbopogon citratus*) in the highlands of the Peninsula. They are not only used for their medicinal properties but also play a significant role in culinary traditions. Herbs and spices are known for their aromatic flavors, nutritional value, and potential health benefits, making them essential ingredients in Malaysian cuisine and traditional remedies. Essential oils extracted from aromatic plant species demonstrate extensive chemical diversity and antimicrobial activity. These plants primarily belong to families such as *Combretaceae*, *Connaraceae*, *Convolvulaceae*, *Fabaceae*, *Malpighiaceae*, *Moraceae*, *Piperaceae*, *Polygonaceae*, and *Salicaceae* (Suffredini et al., 2023). This indicates the potential of rainforest plants as sources of natural antimicrobial agents. The usage of herbal resources in Malaysia has also extended beyond traditional medicine to cosmetic applications. Plants such as pomegranate (*Punica granatum*) and mangosteen (*Garcinia mangostana*) are valued for their cosmetic properties in developing the beauty and skincare products (Othman et al., 2020).

Malaysia's diverse botanical heritage is deeply intertwined with centuries-old indigenous healing practices in the traditional medicine systems such as Malay jamu and Chinese traditional medicines. The country's rainforests are home to a variety of botanical treasures, including