

A MINI REVIEW ON THE NUTRITIONAL COMPOSITIONS AND PHARMACOLOGICAL PROPERTIES OF *Litsea garciae*

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ABSTRACT

Litsea garciae is an underutilized plant found in certain parts of South East Asia. The plant part has been traditionally used to treat, among others, skin infections, boil, rectal bleeding, muscular pain, and sprains. Besides its medicinal properties, its seasonal fruit is consumed for its avocado-like flavor. This article aims to provide information on what is known so far about the nutritional composition and pharmacological properties of *Litsea garciae*.

Key words: Antioxidant, *Litsea garciae*, pharmacological, phytochemical, underutilized fruit

INTRODUCTION

The Lauraceae or the laurel family contains 50 genera which include the genus *Litsea*. There are more than 400 species in the genus *Litsea*, and it is predominant in Asia, Australasia, and America (Sampson & Berry, 2019) with 50 species can be found in Malaysia (Mehat, 2008; Poli & Assim, 2019). The ethnopharmacological properties and medicinal uses of the genus *Litsea* have attracted much attention in researches (Wang & Liu, 2010; Kamle *et al.*, 2019). A few species of *Litsea*, for example, *L. cubeba*, *L. japonica* and *L. salicifolia*, have been extensively studied and are shown to be sources of secondary metabolites with important chemical structures including alkaloids, lactones, sesquiterpenes, flavonoids, lignans, and essential oils. Extracts from different plant parts of *Litsea* such as bark, leaf, and root show significant pharmacological activities including anticancer, anti-inflammatory, antimicrobial, antioxidant, antidiabetic, anti-HIV, and insecticidal (Wang & Liu, 2010; Wang *et al.*, 2016; Kamle *et al.*, 2019).

This article is the first review paper that gathers the relevant literature to congregate the chemical and pharmacological properties of *Litsea garciae*. The common name of *L. garciae* is bagnolo/wuru lilin. In the Sarawak state of Malaysia, the common name differs according to the local languages: engkala as

in Malay language, enkala/pedar as in Iban language, and ta'ang as in Bidayuh language (Poli & Assim, 2019). *Litsea garciae* originated from Borneo (Sabah and Sarawak in Malaysia, Indonesian Kalimantan, and Brunei), Indonesia (Java and Bangka), Taiwan, and the Philippines. It grows wild from seed and can be found in the inland riparian forest, secondary forest, and rarely in mixed dipterocarp. *Litsea garciae* is a sub-canopy, broadleaved evergreen tree that maintains its green leaves throughout the year and bears fruit once a year (Figure 1).

The edible part of *L. garciae* fruit includes the fleshy part and the thin peel (Figure 2). It has a flavor that is comparable to the Lauracea, *Persea americana* (common name, avocado), and has a nickname of "Borneo avocado". The literature search revealed only a few publications on *L. garciae*. Since there is a lack of findings and information on *L. garciae*, this literature review aims to reveal what is known so far on its nutritional compositions, medicinal uses, and other applications.

Nutritional compositions of *Litsea garciae*

Proximate and mineral compositions of Litsea garciae

The proximate and mineral composition data are obtained from Voon and Kueh (1999) and Husen (2015). There are different results obtained from both studies which are probably due to the different analyses used and sites of plant collection (Demir &

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