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Review
Origin and Chemical Variation of Brazilian Propolis
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Abstract
Propolis is a hive product containing chiefly beeswax and plant-derived substances such as resin and volatile compounds. Propolis has been used as an antiseptic and wound healer since ancient times and interest for the product has increased recently. Probably few plant species contribute as major resin sources. Green propolis derives mainly from vegetative apices of Baccharis dracunculifolia (alecrim plants). However, wide variation detected in the chemical composition suggests contributions from alternative resin plant sources. Predominant components of the resin of green propolis are cinnamic acids, chiefly compounds bearing prenyl groups. Terpenoid compounds, such as sesqui, di and pentacyclic triterpenoids, have been detected in many, but not all, samples investigated. Propolis research has uncovered potentialities of substances previously isolated from plants and has detected constituents of plant origin that would hardly be known otherwise.
Brazilian propolis has been classified into 12 groups based on physicochemical characteristics: five in the southern Brazil group (group 3), one in the southeastern Brazil group (group 12), and six in the northeastern Brazil group (group 6). The plan.

It was concluded that the origins of propolis group 3, group 6, and group 12 are resins of the poplar tree, *Hyptis divaricata*, and *Baccharis dracunculifolia*, respectively. Authors: Yong K Park; Severino M Alencar; Claudio L Aguiar. The chemical composition of propolis depends on its botanical origin. The Brazilian propolis is classified into 13 distinct groups according to their chemical composition, which is directly related to the plants used to collect resins and exudates.

In this study we evaluated the variation of propolis group 13 (Dalbergia ecastophyllum), found in the mangrove swamps of Northeastern Brazil, collected in different seasons.

**2. OBJECTIVES.** It was demonstrated that the samples of Brazilian Red Propolis in different seasons have shown variations of the phenolic compounds content and biological activities. July was the month with the highest content of active compounds and the highest antimicrobial activity.

**6. REFERENCES.** Several chemical types of propolis are formulated, based on their plant source. Reliable criteria for chemical standardization of different propolis types are needed but such generally accepted criteria do not yet exist. The chemical profile of "poplar" propolis, typical for the temperate zone, can be characterized by the following parameters: total avone and avonol content, total avanone and dihydroavonol content, and total phenolics content. These parameters correlate better with the biological activity and are more informative than the quantification of individual components. There is still a l... Botanical origin and chemical composition of Brazilian propolis. Journal of Agricultural and Food Chemistry 50, 2502–2506.