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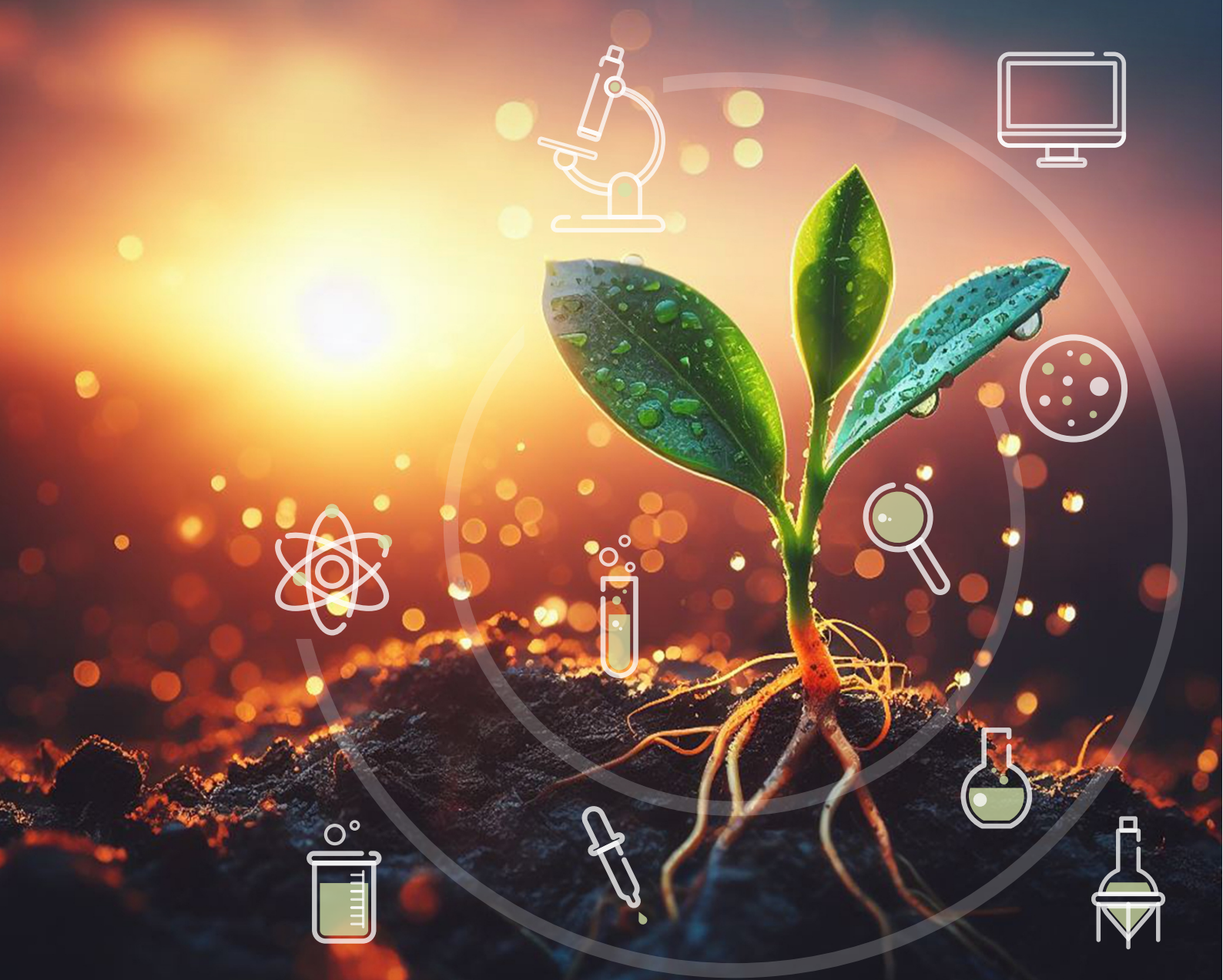

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Isolation of microorganisms from Brazilian green propolis

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Abstract

Brazilian green propolis is a mixture of resinous substances, composed mainly of resins of unexpanded cauline apexes of *Baccharis dracunculifolia*. The biological activity of this propolis has already been well reported, such as antimicrobial activity, but there are no studies on the associated microbiota. Therefore, the objective of this work was to isolate microorganisms from Brazilian green propolis and resin of botanical origin. The collection of propolis and stem tips of *B. dracunculifolia* was carried out in Minas Gerais. The propolis was stored in a falcon tube and the shoot apexes in an eppendorf tube in saline solution. Then, the samples were homogenized and, with an aliquot of 1 mL, serial dilutions were made up to 10^{-6} for bacteria and 10^{-4} for fungi and actinobacteria, followed by plating in culture medium. The plates were incubated at 28 °C and inspected daily, as the microorganisms were visible, and transferred to new plates until total purification of isolates. After 24 hours of incubation, it was possible to observe the growth of bacteria, while fungi and actinobacteria began to grow one week after plating. A total of 44 microorganisms from propolis and 24 from *B. dracunculifolia* buds were isolated. Of these, only one and two filamentous fungi were isolated from propolis and buttons, respectively. The identified morphotypes are brown, yellow, white and gray. With this, we realize that there are microorganisms associated with propolis that require further investigation to understand this complex system.

Keywords: *Baccharis dracunculifolia*; Resins; Morphotype; Biological Properties

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