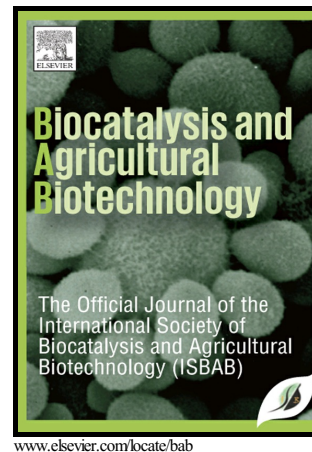


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Assessment of Antioxidant and Antibacterial Properties in Two Types of Yemeni Guava Cultivars

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Abstract

The antioxidant and antibacterial characters for two types of locally growing guava (*Psidium guajava* L.) cultivars from two cities, Taiz and Ibb Yemeni cultivars were evaluated. Antioxidant properties were conducted using ABTS, phosphomolybdenum complex and DPPH assays. The antibacterial activity was evaluated using agar diffusion method against seven human-pathogenic bacteria. The results indicated that methanol extracts of guava's peel and flesh exhibited excellent antioxidant activities. The concentration of antioxidant compounds in the guava fruit cultivars revealed antioxidant activity. High concentration of peroxidase and low polyphenol oxidase were observed in the guava extract as antioxidant enzymes. The antibacterial properties of guava extracts showed differences in killing kinetics compared to human-pathogenic bacteria. The antibacterial properties of the red (Aana) peel crude extracts against seven pathogenic bacteria indicated antibacterial activity. The obtained data indicated that red (Aana) has better total phenolic, scavenging, and antimicrobial activity than white (Aldabab) cultivar.

Keywords: Antioxidants; Guava; Flavonoids; Enzymes, Antimicrobial.

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