

Accepted Manuscript

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PII: S0924-2244(17)30519-8

DOI: [10.1016/j.tifs.2018.05.003](https://doi.org/10.1016/j.tifs.2018.05.003)

Reference: TIFS 2217

To appear in: *Trends in Food Science & Technology*

Received Date: 4 August 2017

Revised Date: 27 April 2018

Accepted Date: 1 May 2018

Please cite this article as: Nirmala, C., Bisht, M.S., Bajwa, H.K., Santosh, O., Bamboo: A rich source of natural antioxidants and its applications in the food and pharmaceutical industry, *Trends in Food Science & Technology* (2018), doi: 10.1016/j.tifs.2018.05.003.

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Bamboo: A Rich Source of Natural Antioxidants and its Applications in the Food and Pharmaceutical Industry

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Running head: Bamboo antioxidants

Highlights:

- Bamboo is a rich source of nutrients, bioactive compounds and antioxidants.
- Phenols, flavonoids, vitamin C and E are the dominant antioxidants in bamboo shoots.
- Selenium, zinc, copper, iron and manganese are important trace elements in bamboo shoots that mediate vital biochemical reactions by acting as cofactors for antioxidant enzymes.
- Antioxidant compounds in bamboo shoots and leaves can be a natural alternative for the development of functional food and nutraceuticals.

Abstract

Background

Bamboo is a multipurpose plant known mostly for its industrial uses but is now being recognized as a potential source of bioactive compounds and natural antioxidants. All the parts of the bamboo plant such as rhizome, culm shaving, leaves, roots, shoots and seeds have clinical applications. Studies have revealed that bamboo is a rich source of antioxidants and regular consumption of bamboo-based products may reduce the risk of age-related chronic diseases including cardiovascular diseases, Alzheimer's disease, Parkinson's disease, cancer and diabetes.

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