

## **Red delicious or wolf apple? Brazilian** savanna fruits high in antioxidants

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Native Brazilian fruits grown in arid climates and poor soil have similar antioxidant activity to conventionally grown Red Delicious apples, according to research published August 21 in the open access journal *PLOS ONE* by Sandra Fernandes Arruda from the University of Brazil and colleagues from other institutions.

Twelve fruit species grown on the Cerrado, a savanna with <u>acidic soils</u>, were compared to conventional Red Delicious apples purchased at local markets; the researchers found that several of these native species had higher proportions of bioactive compounds and pigments than the apples. The proportion of these compounds correlated with antioxidant properties of the fruit extracts when experimentally tested. Based on these results, the authors conclude that native fruits grown in sub-optimal conditions can confer similar nutritional benefits to apples, which are considered among the most antioxidant-rich foods.

The fruits studied here include indigenous species such as lobeira, also called 'wolf apple', tucum, a variety of palm, and other fruits which grow in the <u>arid climate</u> and poor soil of the Cerrado. Though commonly consumed fruits like apples or strawberries have been extensively studied for their chemical constituents, the nutritional benefits of fruits grown in such conditions are not well-known. The authors conclude, "Such fruits can provide a source of new <u>bioactive compounds</u> with functional properties beneficial to health, which should stimulate the pharmaceutical and food industries for the development of new products, promoting the sustainable development of regions with the



characteristics of the Cerrado."

**More information:** Siqueira EMdA, Rosa FR, Fustinoni AM, de Sant'Ana LP, Arruda SF (2013) Brazilian Savanna Fruits Contain Higher Bioactive Compounds Content and Higher Antioxidant Activity Relative to the Conventional Red Delicious Apple. PLoS ONE 8(8): e72826. DOI: 10.1371/journal.pone.0072826

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