

# PHYSICAL APPEARANCE ANTIOXIDANT EFFECT ALPHA-AMYLASE INHIBITION AND ALPHA-GLUCOSIDASE OF CARISSA CARANDAS PRODUCTS

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## ARTICLE HISTORY

**Received:** 20 December 2022      **Revised:** 15 January 2023      **Accepted:** 28 January 2023

## ABSTRACT

The purpose of this research was to study the making of tea from the leaves of the Karanda (*Carissa carandas*) at different stages and the fruit of *Carissa carandas* at the maturity stage. The antioxidant activity was total phenolic content, antioxidant capacity DPPH (2,2-diphenyl-1-picrylhydrazyl), and ferric reducing capacity (FRAP) of *Carissa carandas* leaves Karanda Freeze-dried and spun into powder from the experimental results. The antioxidant properties of tea leaves from young leaves were higher. Antioxidant capacity DPPH and ferric reducing ability were higher than *Carissa carandas* powder from the extracted juice. Water extracted is higher. Tea blending experiment: Using *Carissa carandas* powder, the residue part was substituted for tea leaves at 0, 5, 10, 15, and 20 by weight. Color and total acid content were measured. And full anthocyanin content. The redness of the tea was higher. Substitution of the *Carissa carandas* with 20% of the fruit pulp showed the most heightened redness. And the highest total acid content, including the total amount of anthocyanin, Higher than all formulations. Therefore, *Carissa carandas* development should be mixed between the leaf parts to increase the total phenolic content. And they were *Carissa carandas* fruit to increase the amount of anthocyanin. Give the product the benefit of the *Carissa carandas* fruit. In sensory characteristics testing, it was found that the highest accepted substitution level from the 9-point Hedonic scale test was the 10% substitution level with scores on appearance, color, odor, taste, texture, and preference by a total was 8.56, 8.89, 8.43, 8.21, 8.76 and 8.38, different from other samples. Total anthocyanin content was equal to Antioxidant activity, DPPH was equal, FRAP was equal, alpha-amylase inhibition was comparable, and alpha-glucosidase was equal, moisture content and free water content Aw were similar.

**Keywords:** *Carissa Carandas*, Karanda, Antioxidant, Alpha-Amylase, Alpha-Glucosidase

**CITATION INFORMATION:** Srithongkerd, M., Owatworaki, A., & Siriwong, N. (2023). Physical Appearance Antioxidant Effect Alpha-Amylase Inhibition and Alpha-Glucosidase of *Carissa Carandas* Products. *Procedia of Multidisciplinary Research*, 1(1), 16.

**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**Conflicts of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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