

**COMPARATIVE EFFECTS OF ADDED HYDROCOLOIDS AS STABILIZER
ON THE PHYSICO-CHEMICAL PROPERTIES AND ACCEPTABILITY
OF DRAGON FRUIT (*Hylocereus undatus*) SPREAD**

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ABSTRACT

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A study was conducted to determine the effects of adding hydrocolloids as stabilizer in the production of white flesh dragon fruit (*Hylocereus undatus*) spread. Specifically, it aimed to formulate and characterize the produced spread in terms of physico-chemical, microbial, and sensory properties.

The study adopted the dragon fruit spread formulation and processing technology of Barcelon, et. al. (2015) with some modification and used three treatments; Treatment 0 as the control with no stabilizers, Treatment 1 (dragon fruit spread added with carboxymethyl cellulose), and Treatment 2 (dragon fruit spread added with xanthan gum). Amounts of added hydrocolloids were in accordance with the limit given by the Food and Drug Administration and Codex General Standard for Food Additives. Both dragon fruit flesh and peel were used as raw material in the study.

Produced dragon fruit spread added with hydrocolloids has higher total soluble solids and lower water activity compared to the spread with no additives. However, dragon fruit spread added with xanthan gum was found to be more viscous than the other spreads. Addition of carboxymethyl cellulose enhances the color of the produced spread to pinkish red. Addition of hydrocolloids has no effect on the aroma, off-odor, overall flavor, sweetness, dragon fruit flavor, general acceptability, and microbial load of the dragon fruit spread.

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