

**DEVELOPMENT OF CAVENDISH BANANA JAM WITH HIBISCUS
FLOWER EXTRACT AND BUTTERFLY PEA BLUE FLOWER PIECES**



BY

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ABSTRACT

This research study was conducted to develop Cavendish banana -*Musa* (Musaceae) jam with the extracts of hibiscus flower (*malvaceae*) and butterfly pea blue flowers (*clitoria ternatea*) pieces. Four treatments used for this study in different proportions of extracts of hibiscus flowers and butterfly blue pea flower pieces were T₀ -control sample (Banana pulp alone), T₁- Cavendish banana pulp 300g+butterfly pea blue flower pieces 1g+ hibiscus flower extract 2ml, T₂- Cavendish banana pulp 300g+ butterfly blue pea flower pieces 2g+ hibiscus flower extract 4ml, T₃- Cavendish banana pulp 300g+ butterfly blue pea flower pieces 3g+ hibiscus flower extract 6ml. Physicochemical Analyses for moisture contents, - pH, Acidity, Total soluble solids, and Sensory Analysis for color, texture, aroma, flavor, appearance and overall acceptability using a Nine- point hedonic scale were conducted to every samples of the treatments.

The pH, titratable acidity, total soluble solid, different among the treatments. The pH value of the jam ranged from 4.40 – 3.96. T₁ (Cavendish banana 300g+ 1g X + 2ml Y)) had the higher value of pH, due to higher pH value and microbial contamination is prevented and no need to add the artificial preservatives. The results of this study revealed that, the pH was significantly decreased with the decreasing with added hibiscus flower extraction and butterfly pea blue flower pieces. in sensory analysis colour, aroma, flavor, texture, appearance and overall acceptability are highest in the T₂ sample (Cavendish banana 300g +2g X +4ml Y)) and which has light red colour. We can use the T₂ for the commercial production which has pH 4.36, TSS 60.47, and it doesn't exceed the EPFO, FAO minimum parameters. Therefore, T₂ jam formulation having 300g Cavendish banana pulp, 2g butterfly pea blue flower pieces and 4ml hibiscus flower extract is highly recommended.

The results of this research study confirmed that there is a great potentiality for jam production from Cavendish banana with the butterfly pea blue flowers pieces and hibiscus flower extract. Hibiscus flowers' extract can improve the jam colour. Food industries may therefore consider the adoption of Cavendish banana pulp and extracts of hibiscus flowers and butterfly pea blue flower pieces for jam production. T₂ sample is suitable for commercial production as it contained minimum jam parameter recommended by the EPFO, FAO.

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