

**EFFICACY OF BAMBOO VINEGAR APPLICATION ON
QUALITY AND NUTRIENT CONTENT OF HARUMANIS
MANGO (MA128), *Mangifera indica* L.**

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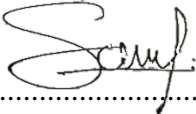
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DECLARATION

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ABSTRACT

EFFICACY OF BAMBOO VINEGAR APPLICATION ON QUALITY AND NUTRIENT CONTENT OF HARUMANIS MANGO (MA128), *Mangifera indica* L.

The extensive pesticide used in agriculture may lead to environmental pollution by harmful materials. Bamboo vinegar as an organic pesticide has been used to control pests in the Harumanis plant during the flowering phase. However, it is essential to identify if bamboo vinegar can continuously affect Harumanis fruits production other than controlling pests in Harumanis orchards. The main objective of this study is to determine the effect of bamboo vinegar application on the quality and nutrient content of Harumanis mango (MA128), *Mangifera indica* L. after being treated with bamboo vinegar. This experiment was conducted by Randomized Complete Block Design (RCBD), consisting of 3 treatments with 3 repetitions were T1 (3-days interval), T2 (5-days interval), and T3 (without bamboo vinegar). Time taken for this treatment started at the end of February until early May 2021. Matured fruits have been harvested to determine fruit quality and nutrient content. The Total Phenolic Content (TPC) for Harumanis fruits was determined using the Folin-Ciocalteau assay, and the Total Flavonoid Content (TFC) was measured using aluminum chloride colorimetric assay. The result shows no significant difference in the physical of fruits but offers a significant difference in phytochemical. The highest total phenolic content was observed from T1 (3-days interval of bamboo vinegar application). Total flavonoid content was increased with the application of bamboo vinegar. It also shows increasing in Vitamin C content and sugar content on Harumanis fruits after treatment with bamboo vinegar. In conclusion, the application of bamboo vinegar had a positive effect on the Harumanis tree, which is good in improving Harumanis fruits, especially on nutrient content.

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