

## **ABSTRACT**

# ***EFFECTIVENESS OF ECO-ENZYME FROM ORGANIC WASTE OF PAPAYA PEEL (*Carica papaya* L.) IN SPRAY AS A PRESERVATIVE TOMATOES (*Solanum Lycopersicum*)***

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*Papaya skin (*Carica papaya* L.) contains Alkaloid, Flavonoid, Saponin compounds. Papaya skin contains propionic acid which can prevent microbial growth. In this research, eco-enzyme from papaya skin (*Carica papaya* L.) was used as a preservative for tomatoes (*Solanum Lycopersicum*) with a concentration of 50% and a concentration of 100%. The physical properties of eco-enzyme preparations include organoleptic tests including color, odor, volume, Ph test. The results of the research showed that the physical characteristics of the color of the eco-enzyme results from papaya skin (*Carica papaya* L.) met the 2 test parameters of the eco-enzyme preparation, namely, the organoleptic test which included a cloudy brown color, a distinctive sour aroma, the volume was reduced to 390 ml from total water 500 ml due to the fermentation process in the form of gas and pH testing. Based on the pH test, it shows an average value of 3.49. Based on the results of research on eco-enzyme preparations from papaya fruit peel (*Carica papaya* L.) in organoleptic tests and pH tests that meet the library parameters. Meanwhile, testing the effectiveness of the papaya peel (*Carica papaya* L.) eco-enzyme solution as a tomato preservative at a concentration of 100% proved to be more effective for preserving tomatoes(*Solanum Lycopersicum*) compared to 50% concentration.*

**Keywords:** *Papaya skin (*Carica papaya* L.), eco-enzyme, tomato fruit preservative*