ABSTRACT

EFFECTIVENESS OF COMPARISON ECO-ENZYME ORANGE *(Citrus sinensis)* - GREEN APPLE *(Pyrus malus L.)* IN FLY INSECTICIDE SPRAY

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Green apple skin contains essential oils, phenols and tannins. Orange peel contains acetic acid, the essential oil of the two fruit peels functions as a vegetable insecticide. In this study, eco-enzymes from orange peels *(Citrus sinensis)* and green apple peels *(Pyrus malus L)* were used as disinfectants by adding eco-enzymes with concentrations of 5%, 10% and 15%. physical characteristics of eco-enzyme preparations including organoleptic tests including color, odor, volume, pH test and fly effectiveness. The results of the study of the physical characteristics of the eco-enzyme color results from orange peel *(Citrus sinensis)* and green apple peel *(Pyrus malus L)* fulfilled 2 parameter tests for eco-enzyme preparations namely, organoleptic tests which included a cloudy brown color, fresh smell of orange peel and slightly sour the sting, the volume reduced to 446ml from a total of 500ml water due to the gaseous fermentation process and pH test. pH test at the Pharmaceutical Laboratory of the Surabaya Pharmacy Academy showed an average value of 3.42. And in the observation test on flies the addition of 5%, 10% and 15% eco-enzyme could not repel flies. Based on the results of research on eco-enzyme preparations from orange peels *(Citrus sinensis)* and green apple peels *(Pyrus malus L)* in the organoleptic test and pH test met the literature parameters while the effectiveness test of the eco-enzyme orange peel *(Citrus sinensis)* and green apple peel *(Pyrus malus L)* in fly insecticide sprays cannot kill flies. And further research was carried out on eco-enzyme peels of oranges *(Citrus sinensis)* and peels of green apples *(Pyrus malus L)* that can repel house flies.

Keywords : *Orange peel and green apple peel, natural insecticide, house fly.*