

**PRODUCTION AND YIELD ANALYSIS OF LIQUID SMOKE
BIOPESTICIDE FROM EMPTY BUNCHES OF PALM OIL
(*Elaeis guineensis* Jacq.)**

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ABSTRACT

Empty palm oil bunches (EFB) are waste that until now has not been utilized properly, of the total palm oil production 25-26% are empty bunches. From several research results that have been carried out previously, liquid smoke from one of the uses of EFB is liquid smoke biopesticides. Liquid smoke is a mixture of solutions from the expression of wood smoke in water made by condensing smoke from wood pyrolysis. Biopesticides are defined as pesticides of natural origin composed of animals, plants, bacteria, and minerals. Biopesticides also include living organisms that can control agricultural pests. This activity aims to determine the production and yield analysis of liquid smoke biopesticide from empty bunches of oil palm *elaeis guineensis jacq*. This research was conducted from June to August 2022 in Karang Melok Village, Bondowoso, East Java. This study used a pyrolysis tool consisting of 3 treatments with 6 tests, which includes 2 hours, 3 hours and 4 hours time treatment. Research data are analyzed using formulas. The result showed that the production of liquid smoke biopesticides from empty bunches of palm oil was 9.770 ml, 9.995 ml and 11.685 ml with the pyrolysis time for 2 hour, 3 hour and 4 hour with yield of 32,56%, 33,30% and 38,93%.

Keywords : Empty Bunches of Palm Oil, Biopesticides and Liquid Smoke