

INTISARI

Effective Microorganisms 4 (EM 4) merupakan suatu campuran mikroorganisme yang mengandung *Actinomyces* yang dapat menghasilkan enzim untuk menghidrolisis selulosa dan hemiselulosa.

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan EM 4 terhadap hasil maserasi daun mimba (*Azadirachta indica* A.Juss) dengan mengukur kadar senyawa turunan fenol.

Kadar senyawa turunan fenol diukur dengan menggunakan metode Kromatografi Lapis Tipis (KLT) dilanjutkan dengan densitometri menggunakan fase diam silika gel GF₂₅₄ dan fase gerak kloroform-metanol-asam formiat 10% (90:10:0,5).

Hasil penelitian menunjukkan bahwa EM 4 dengan konsentrasi 5%-25% dapat menaikkan kadar senyawa turunan fenol. Tetapi, pada kadar 35%-45% mampu menurunkan kadar senyawa turunan fenol.

ABSTRACT

Effective Microorganisms 4 (EM 4) is a mixture of microorganisms containing *Actinomycetes* capable of producing enzymes to hydrolyze cellulose and hemicellulose.

This research was aimed to identify the influence of EM 4 addition to the maceration of neem (*Azadirachta indica* A.Juss) leaf by measuring the concentration of phenol derivatives.

The concentration of phenol derivatives was determined by Thin Layer Chromatography (TLC) followed by densitometry using silica gel GF₂₅₄ as stationary phase and chloroform-methanol-formic acid 10% (90:10:0,5) as mobile phase.

Result showed that EM 4 at the concentration of 5%-25% increased the phenol derivatives but at the concentration of 35%-45%.