

BIOHERBISIDA POTENTIAL TEST OF MAHONI (*Swietenia mahagoni* (L.) Jacq) AND KETAPANG (*Terminalia Catappa*) LEAVES EXTRACTS ON THE GROWTH OF JAJAGOAN (*Echinochloa crus-galli* (L.) P Beauv L.) Weeds

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ABSTRACT

Jajagoan weed (*E. crus-galli*) is a weed that is highly competitive with paddy rice cultivation. The presence of jajagoan weed (*E. crus-galli*) results in productivity losses for paddy rice. An alternative to the use of chemical herbicides is to use plant-based herbicides. Plants that can be utilized as bioherbicides are mahogany and ketapang plants because they can inhibit weed growth. The purpose of this study was to determine the potential use of mahogany leaves and ketapang leaves in suppressing the growth of jajagoan weed (*E. crus-galli*) and determining the most appropriate concentration of extracts. The research was conducted at the Plant Protection Laboratory, Faculty of Agriculture, National Development University "Veteran" Yogyakarta. The study used a complete randomized design (CRD) consisting of 8 treatments with 3 replications, namely control (distilled water), 50% ketapang leaf extract, 75% ketapang leaf extract, 50% mahogany leaf extract, 75% mahogany leaf extract, 50% ketapang leaf extract + 25% mahogany leaf extract, 25% ketapang leaf extract + 50% mahogany leaf extract, 25% ketapang leaf extract + 25% mahogany leaf extract. Data were analyzed with variance analysis and Scott-Knott further test. The application of ketapang and mahogany leaf extracts has an effect in inhibiting weed growth. Concentrations of 50% and 75% provide the best control compared to other treatments.

Keywords: *Jajagoan weed, mahogany leaf extract, ketapang leaf extract, bioherbicide.*