

**EFFECTIVENESS OF *Andrographis paniculata* Nees LIQUID SMOKE TO
CONTROLLING ARMYWORMS (*Spodoptera litura*. L) IN SOYBEAN
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ABSTRACT

Armyworm *Spodoptera litura*. L is one of the main pests in soybean cultivation which can significantly reduce soybean production. One way to control pests is with botanical pesticides. The purpose of this study was to examine the mortality of armyworms, to obtain an effective concentration for controlling armyworms on soybeans and the effect of the application of bitter liquid smoke on the production of the number of pods planted. This study used an experimental method with a completely randomized design (CRD) non-factorial 5 treatments 4 replications. The treatment of bitter liquid smoke with a concentration of P0 (control), P1 4%, P2 8%, P3 12%, P4 16%. Observational data were analyzed using a variance test with a 5% F test and continued with a 5% DMRT test. The results showed that the administration of a liquid smoked vegetable pesticide with a concentration of 16% had a significant effect on the mortality of *Spodoptera litura*. L. with a mortality rate of 80%. The concentration of bitter liquid smoke at 12% and 16% was effective in reducing the intensity of armyworm attack compared to synthetic pesticide treatment with an average attack intensity of 3.09% to 1.85% on soybeans. The yield of the number of pods planted with the application of liquid smoke showed a significantly different effect with an average of 34.00.

Keywords: *Andrographis paniculata*, Liquid smoke, Soybean Plants, *Spodoptera litura*