

**Effectiveness of Lemongrass Stem Extract(*Cymbopogon nardus L.*) As  
Pesticide for Aphids (*Aphis gossypii*) on Red Chili (*Capsicum frutescens L.*)**

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*Indonesia is a country known as a megabiodiversity country that is undoubtedly a natural wealth and biodiversity because there are 100 to 150 families of plants, and more than 239 types of food plants and 2,039 types of medicinal plants, ranging from food plants to medicinal plants, of which types of plants can mostly be used and used as spice plants, Drugs and pesticides. The problem that is often experienced by chili farmers is the aphid pest (*Aphis gossypii*) which results in a decrease in the quality and quantity of crop yields. With control efforts to overcome pests *Aphis gossypii* is a natural pesticide from lemongrass stem extract. This study aims to find out the effectiveness of lemongrass stem extract (*Cymbopogon nardus L.*) in controlling aphid pests (*Aphis gossypii*) as a natural pesticide on red chili plants (*Capsicum frutescens L.*). Thus, it is expected to obtain an effective concentration of lemongrass stem extract to kill aphid pests on chili plants. This research method used experimental method with Completely Randomized Design (RAL) and analyzed using variance (ANOVA) with extract concentration in this study using 5 concentration treatments, namely 25%, 20%, 15%, 10% and 0% (control) with 4 repetitions each. Observations were made for 7 days. The results showed that the concentration (0%) in the control was none (0), while the concentration of 10% lemongrass stem extract was 25%, then the concentration of 15% lemongrass extract was 35%, followed by a concentration of 20% lemongrass extract, which was 60 % and at a concentration of 25% lemongrass stem extract with 75%. With the conclusion that lemongrass stem extract has effectiveness in killing aphids at a concentration of 20% which can be used as a natural pesticide because it is close to 50% mortality at LC50 but by testing the analysis of variance there is no significant difference.*

***Keywords:*** *Cymbopogon nardus L., Aphis gossypii, effectiveness, natural pesticides, mortality*