

TESTING CATAPPA LEAF EXTRACT (*Terminalia catappa* L.) ON THE GROWTH OF BABADOTAN WEED (*Ageratum conyzoides* L.)

By: Imam Sugiri Agung Saputra
Supervised by: Abdul Rizal AZ.

ABSTRACT

Catappa leaves (*T. catappa* L.) have allelochemical compounds that can inhibit the growth of other plants, so they have potential as a bioherbicide. This research aims to determine the concentration of catappa leaf extract (*T. catappa* L.) which is able to control the growth of babadotan weed (*A. conyzoides* L.). This research was carried out at the UPN Veteran Yogyakarta Plant Protection Laboratory and Greenhouse located on Jalan Raya Tajem, Depok District, Sleman Regency, Yogyakarta Special Region, from May 2024 to July 2024. The research used a Completely Randomized Design (CRD) with 9 treatments and 3 replications, namely P₀ = control, P₁ = concentration of catappa leaf extract 10%, P₂ = concentration of catappa leaf extract 20%, P₃ = concentration of catappa leaf extract 30%, P₄ = concentration of catappa leaf extract 40%, P₅ = concentration of catappa leaf extract 50%, P₆ = concentration of catappa leaf extract 60%, P₇ = concentration of catappa leaf extract 70%, P₈ = concentration of catappa leaf extract 80%. The parameters observed were weed height, growth rate, phytotoxicity, dry weight, percentage of death. Data analysis used variance calculations at a real level (α) of 5%. If it shows a real effect, then further testing is carried out using the cluster test (*Scott-Knott*). Treatment P₈ = 80% ketapang leaf extract had the best effect on weed height, growth rate, phytotoxicity, dry weight, death percentage.

Keywords: *Bioherbicide, Catappa Leaf Extract, Concentrate, Babadotan.*