***TESTING THE EXTRACT OF BABADOTAN, KIRINYUH, AND TEMBELEKAN ON WEED GROWTH AND THE YIELD OF BEAN PLANTS (Phaseolus vulgaris* L.)**

By: Syahdani Izzudin

Supervised by: Siwi Hardiastuti EK.

ABSTRACT

Weeds are plants whose growth is not desired by cultivators. Weed control can be carried out using chemical herbicides and natural herbicides. This research aims to determine the effectiveness of the extracts of babadotan, kirinyuh, and tembelekan in suppressing weeds and their impact on the yield of bean plants. The research conducted in the Bugisan hamlet, Bugisan village, Prambanan district, Klaten regency, Central Java, from June to August, used a Completely Randomized Design with a single factor consisting of 10 treatments and 3 replications, namely P1 20% babadotan extract, P2 25% babadotan extract, P3 30% babadotan extract, P4 30% kirinyuh extract, P5 40% kirinyuh extract, P6 50% kirinyuh extract, P7 15% tembelekan extract, P8 30% tembelekan extract, P9 45% tembelekan extract, and P10 without control (control). The data obtained were analyzed using Analysis of Variance (ANOVA) at a 5% level and further tested using the BNT test at a 5% level. The results showed that kirinyuh extract provided the best results compared to babadotan extract and tembelekan extract, with 50% kirinyuh extract effectively suppressing weed growth in bean crops, achieving a weed control efficiency value of 76,38%. Weed control using kirinyuh extract increased the yield of bean plants.

Keywords: *babadotan extract, kirinyuh, tembelekan, green beans*