

**Application of *Imperata cylindrica* (L.) Beauv., *Cyperus rotundus* L., and
Ageratum conyzoides L. Extracts for Weed Control and Their Effects on Baby
Corn (*Zea mays* L.) Yield**

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ABSTRACT

Baby corn production in Indonesia continues to decline due to weed competition with corn plants. Weeds are the main competitors in the process of absorbing nutrients, water, light and space to grow. This competition can disrupt plant growth and result in reduced corn yields. Weed control using synthetic herbicides can be reduced by using weed extracts as botanical herbicides. This research aims to determine the effect of extracts from reed weed (*Imperata cylindrica* L. Beauv), nutgrass (*Cyperus rotundus* L.), and whiteweed (*Ageratum conyzoides* L.) in controlling weeds and determining their effect on baby corn crop yields. The research has been carried out in fields on Brengosan, Sumberdadi, Mlati District, Sleman Regency, Special Region of Yogyakarta in March - May 2025. The research used a Randomized Complete Block Design with 10 treatments and 3 replications, namely without bioherbicides, 20% reeds extract, 40% reeds extract, 60% reeds extract, 20% nutgrass extract, 40% nutgrass extract, 60% nutgrass extract, 20% whiteweed extract, 40% whiteweed extract, and 60% whiteweed extract. The resulting data were analyzed using 5% ANOVA and further tested using 5% LSD. The results showed that the application of reeds extract, nutgrass extract and whiteweed extracts had an effect on controlling weeds. The treatment of 40% nutgrass extract had the highest weed control effectiveness, which was 77.97%.

Key words: baby corn, weed, bioherbicide