

ABSTRACT

Mung beans (*Vigna radiata* L.) are a family of legumes that are widely cultivated in Indonesia. The purpose of the study was to determine the effect of *Ageratum conyzoides* weed extract bioherbicide and application time on weed growth in mung bean plants. This research was conducted in Paya Gaboh Village, Sawang District, North Aceh Regency, from December 2024 to January 2025. The materials used in this study were mung bean seeds of vima 1 variety, cow manure, Mutiara NPK fertilizer, top soil, 35 cm x 40 cm polybags, distilled water and *Ageratum conyzoides* weeds. Randomized Group Design (RGD) was used in this study with two factors and three replications. The first factor was the concentration of bioherbicide, namely (K₁) 100 g/L concentration, (K₂) 200 g/L concentration and (K₃) 300 g/L concentration. The second factor was the time of bioherbicide application (A₁): application 7 days before planting and (A₂): application 14 days after planting. The parameters observed were plant height, number of leaves, number of pods, seed wet weight, seed dry weight, plant wet weight, plant dry weight, number of weeds, weed wet weight and weed dry weight. The results showed that bioherbicide concentration treatment affected the number of leaves, number of pods, wet weight of seeds, dry weight of seeds, dry weight of plants, number of weeds and dry weight of weeds. The best treatment was obtained at a concentration of 300 g/L *Ageratum conyzoides* bioherbicide. The time of application affects plant height, plant dry weight, number of weeds, weed wet weight and weed dry weight. The best treatment was obtained at the time of bioherbicide application 14 days after planting. There was no interaction between bioherbicide concentration treatment and bioherbicide application time of babandotan on all observed variables.

Keywords: bioherbisida, concentrations, legumes and weeds