

## **ABSTRACT**

*This research aims to obtain the most effective concentration of leaf extract of “alang-alang” weed, “babandotan” weed, and rhizomes of kirinyuh weed to control the growth of spinach thorns weed, and to know the effect of on mustard plants. This research was conducted in plant protection Laboratory and green house faculty of Agriculture, Universitas Muhammadiyah Yogyakarta on May until July 2017. This research was designed using single factor and arranged in a Completely Randomized Design with three replications. The treatments were leaf extract of “alang-alang” weed, “babandotan” weed, and rhizomes of kirinyuh weed, with each concentration of 25 % and 50 %, and 2 treatments as control i.e herbicide active compound of Methyl metsulfuron and water. The result of this research showed that leaf extract of “alang-alang” weed, “babandotan” weed, and rhizomes of kirinyuh weed with concentration of 25 % and 50% can inhibit the growth of spinach thorns weed. Extract of 50 % “kirinyuh” weed was most effective concentration to inhibit the growth and germination rate of spiny pigweed. Leaf extract of “alang-alang” weed, “babandotan” weed, and rhizomes of kirinyuh weed had no effect on the growth of the green mustard.*

**Keyword:** *Spinac thorns weed, leaf extract of “alang-alang” weed, “babandotan” weed, rhizomes of kirinyuh weed*