ABSTRACT

Field weed (*Cyperus rotundus*) is one of the main weeds that can reduce the growth and yield of rice plants due to competition in the absorption of nutrients, water, light, and growing space. This study aims to determine the effect of paraquat and bispiribak sodium herbicides on the growth of field weeds. The research was carried out from October to December 2025 at the Greenhouse House, Faculty of Agriculture, Malikussaleh University using a randomized group design without factors, each herbicide consisted of five dose levels with five replicates. This study consisted of two experiments, namely the use of paraquat herbicides and bispyribak sodium herbicides. In the paraquat herbicide experiment, five dose levels were used, namely 0 L/ha as a control, 0.25 L/ha, 1 L/ha, 2 L/ha, and 3 L/ha. Meanwhile, in the bispiribak sodium herbicide experiment, five dose levels were used, namely 0 ml/ha as a control, 37.5 ml/ha, 150 ml/ha, 200 ml/ha, and 250 ml/ha. Each dose level was applied once to the field weed (*Cyperus rotundus*) one month after planting to evaluate the effect of the dose on weed growth and poisoning levels. The parameters observed included weed height, stem diameter, number of leaves, percentage of poisoning, and dry weight of weeds. The results showed that paraquat herbicides had a very significant effect on all observation parameters, where a dose of 1–3 L/ha was able to control field weeds in total with a toxicity percentage of 100% and a dry weight of 0.00 g. Meanwhile, bispiribak sodium herbicide also has a real to very real effect on weed growth, especially at a dose of 150 ml/ha which is effective in suppressing the high growth of weeds, the number of leaves, the percentage of poisoning, and the dry weight of weeds gradually. In conclusion, paraquat herbicides are effective for rapid weed control, while bispiribak sodium is effective for systemic control of weeds in fields.

Keywords: *Cyperus rotundus*, Herbicide dosage, Paraquat, Sodium bispyribac, Weeds of field weeds