

CHAPTER V

CONCLUSION

A. Conclusion

Based on the results of the study carried out after applying two active ingredient herbicides on the resistant *Eleusine indica* L., it concluded as follows:

- Application of herbicides with single active ingredients Sulfentrazone effectively controls resistant weeds in the 4 to 6-leaf stage, while in the 8-leaf stage, the resistant weed still survives. The treatment H2 uses Sulfentrazone at the dose of 500 ml/ha at the 4-leaf stage, and H3 uses Sulfentrazone at the dose of 750 mL/ha at the 4-leaf stage to perform the killing weed 100% in two weeks meanwhile other treatment in three weeks.
- Application of herbicides with single active ingredients Glyphosate effectively manages resistant weeds in the 4-leaf stage at the dose of 2L/ha, while in the 6 to 8-leaf stage, the resistant weed still survived.
- Application herbicides with mixtures of active ingredients Sulfentrazone + Glyphosate control effectively resistant weeds six and 8-leaf stage.
- Symptoms of death of *Eleusine indica* L. weeds showed the turn in the colour of weed leaf from yellow to brown, and the leaf will be dryness and necrosis (totally dead).
- Classification of resistance to herbicide of weed *Eleusine indica* L. is herbicide-resistant 22%, developing resistance 14%, and herbicide-susceptible 64%.

B. Suggestion

Despite the reality that such *Eleusine indica* L. populace is highly resistant to Glyphosate herbicide, the plantation management continues to use Glyphosate as a tool at higher rates and shorter intervals to control the weed. The integrated management strategies for the resistant weed are necessary to apply to manage the occurrence of resistance with a high level of resistance. Diversity in weed control

strategies is also the most crucial tactic for reducing and controlling the development of weed resistance.

