# V. CONCLUSION AND RECOMMENDATION

## 5.1. Conclusion

The conclusions of this study are as follows:

1. Secondary metabolites of endophytic bacteria *Bacillus* sp. Bth-22 at a 30% concentration were able to suppress the infection level of *Colletotrichum* sp. on chili seeds by 47.6% in the blotter test method and 91.6% in the growing on test method.
2. Secondary metabolites of endophytic bacteria *Bacillus* sp. Bth-22 at a 30% concentration were able to increase the germination percentage to 64% in the blotter test and 94.3% in the growing on test. At the same concentration, *Bacillus* sp. Bth-22 metabolites also enhanced plant height growth by 133% compared to the negative control and 7% compared to the positive control. Moreover, the 30% concentration increased root length growth by 140%.
3. A 30% concentration of *Bacillus* sp. Bth-22 secondary metabolites was effective in suppressing *Colletotrichum* sp. infection in chili seeds using both the blotter test and growing on test methods.

## 5.2. Recommendation

Further research is needed regarding the soaking interval of chili seeds and higher concentrations of *Bacillus* sp. Bth-22 secondary metabolites to suppress *Colletotrichum* sp. infection more effectively. In addition, more detailed studies are recommended on the analysis of *Bacillus* sp. Bth-22 secondary metabolites, particularly compounds such as fengycin, bacillomycin, and iturin A, for the control of *Colletotrichum* sp. and other fungal pathogens.