

V. CONCLUSION AND SUGGESTION

A. Conclusion

These conclusions can be drawn from the results of this study's research, among the mixture or single nanoemulsion derived from *Tephrosia vogelii* leaf and *Piper aduncum* fruit extract, only the mixed ratio of 1:5 nanoformulation was classified as a nanoparticle 97 nm and was the most effective formulation to manage the population of *S. frugiperda* indicated by the highest mortality, the longest larval development at a concentration of 0.56%, which were 84.12% and 6.43 days, respectively but no interaction between formulation and concentration. The relative LC25, LC50, and LC95 values were 0.098, 0.214, and 1.410%. The results showed that the combined index of nanoemulsion extracts was not only additive at LC50 values of 0.92% lower than at LC95 values of 0.68%, indicating a weak synergistic impact, but also had a negative influence on the growth rate, the efficiency of conversion of ingested and digested food.

B. Suggestion

To optimize advantages, it is important to study more the combined nanoemulsion's efficiency against other pests, natural enemies in the field, and high concentrations or other synergistic nanoformulations to achieve more effective management.

