

ABSTRACT

Andini Sifa Fadhillah. 2023. Effectiveness of Basil (Ocimum basilicum L.) Stem Extract on White Pest Mortality (Bemisia tabaci) on Ashoka Flower Ornamental Plants (Ixora coccinea L.). Advisor Dr. Cartonno, M.Pd., M.T. with Supervisor II Ida Yuyu Nurul Hizqiyah, S.Pd., M.Sc.

Basil (Ocimum basilicum L.) is a plant that contains essential oils and can be used as an antimicrobial. Basil plants have compounds that can kill white pests in large quantities. This study aims to determine the effectiveness of basil stem extract on white pest mortality on ashoka flower ornamental plants (Ixora coccinea L.). The ashoka plant (Ixora coccinea L.) is an ornamental plant that is quite popular among ornamental plant hobbyists, but many of these ashoka plants also have white pests. In this study, the experimental method was used in a completely randomized design (CRD) and analyzed using variance (ANOVA) which would be carried out at the Laboratory of the Faculty of Teaching and Education, Biology Education, Pasundan University. In the study the type of treatment concentration used was 10%, 20%, 30%, 40%, 50% and 0% (control) with 4 repetitions each. Repetition results were at a concentration of 50% with an average mortality rate of white pest (Bemisia tabaci) which was 93%, whereas to obtain a biological response of 50% mortality from the total number of samples required concentration of basil stem extract at a concentration of 30%. This shows that basil stem extract is effective in killing the white pest Bemisia tabaci.

Keyword: *effectiveness, basil stem extract, botanical pesticide, mortality, white pest*