INTISARI

Penelitian ini bertujuan untuk mengevaluasi pengaruh pakan alami daun bawang merah dan *Heliotropium indicum* terhadap pertumbuhan, perkembangan, serta mengetahui potensi *Heliotropium indicum* sebagai inang sementara. Penelitian dilakukan menggunakan uji pakan dan uji preferensi oviposisi no-choice dengan tiga perlakuan pakan, yaitu *Allium cepa*, *Heliotropium indicum* mulai instar 3, dan *Heliotropium indicum* mulai instar 4, masing-masing 20 ulangan. Parameter yang diamati meliputi preferensi oviposisi, penetasan telur, konsumsi pakan, durasi perkembangan tiap stadia, dan *survival rate*. Data dianalisis menggunakan uji normalitas, homogenitas, ANOVA, dan Kruskal-Wallis yang dilanjutkan uji Mann-Whitney U. Hasil penelitian menunjukkan bahwa *Allium cepa* merupakan inang yang lebih sesuai bagi *Spodoptera exigua*, ditunjukkan oleh oviposisi dan penetasan telur yang lebih tinggi, konsumsi pakan lebih besar, perkembangan lebih stabil, serta *survival rate* lebih tinggi hingga imago. Sebaliknya, *Heliotropium indicum* menurunkan konsumsi pakan, mempercepat durasi perkembangan, dan menurunkan kelangsungan hidup larva, yang diduga akibat kandungan metabolit sekunder bersifat antifeedant dan toksik. Meskipun demikian, *Spodoptera exigua* masih mampu berkembang hingga dewasa pada *Heliotropium indicum*, sehingga tanaman ini berpotensi sebagai inang sementara tetapi bukan inang optimal.

Kata kunci: *Allium cepa*, gulma, inang sementara, laju intrinsik

ABSTRACT

This study aimed to evaluate the effects of natural diets of shallot leaves and *Heliotropium indicum* on the growth and development of *Spodoptera exigua*, as well as to determine the potential of *Heliotropium indicum* as an alternative host. The experiment was conducted using feeding tests and no-choice oviposition tests with three dietary treatments, namely *Allium cepa*, *Heliotropium indicum* from instar 3, and *Heliotropium indicum* from instar 4, each with 20 replications. The observed parameters included oviposition preference, egg hatchability, food consumption, developmental duration at each stage, and survival rate. The data were analyzed using normality and homogeneity tests, followed by ANOVA or the Kruskal-Wallis test, and further analyzed using the Mann-Whitney U test. The results showed that *Allium cepa* was a more suitable host for *Spodoptera exigua*, as indicated by higher oviposition and egg hatch rates, greater food consumption, more stable development, and higher survival rates up to the adult stage. In contrast, *Heliotropium indicum* reduced food consumption, shortened developmental duration, and decreased larval survival, which was presumably due to the presence of secondary metabolites with antifeedant and toxic effects. Nevertheless, *Spodoptera exigua* was still able to develop to adulthood on *Heliotropium indicum*, indicating that this plant has the potential to serve as an alternative host, although it is not an optimal one.

Keywords: *Allium cepa*, weed, temporary host, intrinsic rate