

Yuhan Pratama Putra 180311100047 Efektivitas Ekstrak Daun Pepaya (*Carica papaya* L.) dan Umbi Bawang Putih (*Allium sativum* L.) Terhadap Ulat Grayak (*Spodoptera litura*). Pembimbing **Ir. Amin Zuchri, M.P.**

ABSTRAK

Ulat grayak (*Spodoptera litura*) merupakan salah satu hama yang menyerang berbagai tanaman pertanian sehingga diperlukan tindakan pengendalian untuk mengurangi penyebaran dan tingkat serangan. Salah satunya dengan menggunakan bahan alami atau berasal dari tumbuhan yang bersifat mudah terurai dan ramah lingkungan. Tujuan penelitian ini yaitu untuk mengetahui efektivitas ekstrak daun pepaya (*Carica papaya* L.) dan umbi bawang putih (*Allium sativum* L.) terhadap ulat grayak (*Spodoptera litura*). Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan perlakuan DP 1 (60 mL ekstrak daun pepaya/100 mL), DP 2 (80 mL ekstrak daun pepaya/100 mL), BP 1 (60 mL ekstrak umbi bawang putih/100 mL), BP 2 (80 mL ekstrak umbi bawang putih/100 mL), K1 (20 mL ekstrak daun pepaya + 20 mL ekstrak umbi bawang putih/100 mL) dan K2 (40 mL ekstrak daun pepaya + 40 mL ekstrak umbi bawang putih/100 mL). Data yang diperoleh dianalisis menggunakan *Analysis of Variance* (ANOVA) 5% dan apabila berpengaruh dilakukan Uji Beda Rataan menurut Duncan atau DMRT (*Duncan multiple Range Test*) 5%. Hasil penelitian menunjukkan pemberian ekstrak dari umbi bawang putih terhadap pengendalian hama ulat grayak (*Spodoptera litura*) terbukti efektif yaitu pada perlakuan BP 2 (80 mL ekstrak umbi bawang putih/100 mL) memperoleh persentase larva berhenti makan sebesar 72,5%, nilai mortalitas larva diperoleh yaitu 100%, dan rata-rata awal waktu kematian larva yaitu 8 jam.

Kata Kunci: Ulat grayak (*Spodoptera litura*), ekstrak daun pepaya, dan ekstrak umbi bawang putih.

Yuhan Pratama Putra 180311100047 Effectiveness of Papaya Leaves Extract (*Carica papaya* L.) and Garlic Bulbs (*Allium sativum* L.) Against Armiworms (*Spodoptera litura*). Supervised **Ir. Amin Zuchri, M.P.**

ABSTRACT

Armyworms (*Spodoptera litura*) is one of the pest that attack various agricultural crops so that control measures are needed to reduce the spread and level of attack. One of them by using natural ingredients or derived from plants that are easily biodegradable and environmentally friendly. The purpose of this study was determine the effectiveness of papaya leaf extract (*Carica papaya* L.) and garlic bulb (*Allium sativum* L.) against armyworm (*Spodoptera litura*). This study used a completely randomized design (CRD) with DP 1 (60 mL papaya leaf extract/100 mL), DP 2 (80 mL papaya leaf extract/100 mL), BP 1 (60 mL garlic bulb extract/100 mL), BP 2 (80 mL garlic bulb extract/100 mL), K 1 (20 mL papaya leaf extract + 20 mL garlic bulb extract/100 mL), and K 2 (40 mL papaya leaf extract + 40 mL garlic bulb extract/100 mL). The data obtained were analyzed using an *Analysis of Variance* (ANOVA) 5% and if it had an effect, the Duncan's Average Difference Test or DMRT (*Duncan Multiple Range Test*) 5% was performed. The results showed that the administration of extracts from garlic bulbs for the control of armyworm (*Spodoptera litura*) proved to be effective, namely in the BP 2 (80 mL garlic bulbs extract/100 mL) the percentage of larvae stopped eating was 72,5%, the mortality value of larvae obtained is 100%, and the average early larvae death time is 8 hours.

Keywords: Armyworm (*Spodoptera litura*), Papaya leaf extract, and Garlic bulbs extract.