PENGARUH ASAP CAIR TEMPURUNG KELAPA DAN SEKAM PADI TERHADAP KOMPONEN BIOLOGIS *Plutella xylostella* L.

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ABSTRAK

Tanaman kubis merupakan salah satu komoditas yang mempunyai nilai ekonomis tinggi di Indonesia. Hama *Plutella xylostella* menjadi salah satu kendala dalam produksi tanaman. Asap cair merupakan salah satu alternatif pengendalian hama pada tanaman. Tujuan penelitian ini untuk mengetahui efektivitas asap cair tempurung kelapa dan sekam padi dalam mempengaruhi komponen biologi *P.xylostella*. Pelaksanaan penelitian dimulai pada bulan Januari-Mei 2021 di Kasongan Bangunjiwo, Kasihan Bantul. Penelitian menggunakan Rancangan Acak Lengkap (RAL) satu faktor yakni insektisida kimia berbahan aktif klorpirifos 500g/L + sipermetrin 50g/L, berbagai konsentrasi (5%, 10%, 15%, 20%) asap cair tempurung kelapa dan berbagai konsentrasi asap cair sekam padi (5%, 10%, 15%, 20%) dengan jumlah seluruhnya sebanyak 9 perlakuan diulang sebanyak 3 kali dan masing-masing unit percobaan terdapat 3 sampel yang terdiri atas 10 larva. Data yang diperoleh dalam penelitian diolah dengan *Analysis of Variance* (ANOVA) pada taraf 5%, untuk membandingkan antar perlakuan dilanjutkan dengan uji Kontras Orthogonal Satu Faktor pada taraf uji 5%. Hasil penelitian memperlihatkan bahwa konsentrasi 20% asap cair tempurung kelapa maupun konsentrasi 20% asap cair sekam padi mampu menekan kemunculan imago. Asap cair tempurung kelapa dan sekam padi sampai konsentrasi 20% kurang efektif dalam menimbulkan kematian larva *P.xylostella* dibanding insektisida klorpirifos 500 g/L + sipermetrin 50 g/L.

Kata kunci: *Brassicaceae*, *Plutella xylostella*, Asap Cair Tempurung Kelapa, Asap Cair Sekam Padi.

***The Effects of Coconut Shell and Rice Husk Liquid Smoke on The Biological Component of Plutella xylostella* L.**

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ABSTRACT

Cabbage is one of commodity that has great economic value in Indonesia. Plutella xylostella infestation reduce plants productivity. Liquid smoke can be used as an alternative to control pests on plants. This research aimed to know the effectivity of coconut shell and rice husks liquid smoke to affect biological components of P. xylostella. The research was carried out in January-May 2021 in Kasongan, Bangunjiwo, Kasihan Bantul. This experiment was arranged in a Completely Randomized Design (CRD), the treatment were chemical insecticides with active ingredients of 500g/L chlorpyrifos + 50g/L cypermethrin (control), various concentration of coconut shell liquid smoke (5%, 10%, 15%, 20%) and rice husk liquid smoke (5%, 10%, 15%, 20%), so there were 9 treatments with 3 replications and there are 3 sample of each experimental units, which consisted of 10 larvae. The data obtained were analyzed using Analysis of Variance (ANOVA) α=5%, then analyzed further with Orthogonal Contrast (α=5%) to compare the treatment. *The results showed that 20% coconut shell liquid smoke or 20% rice husk liquid smoke was effective in reducing the emergence of P. xylostella imago. However, both liquid smoke until concentration of 20% was less effective in causing mortality of P. xylostella then insecticide chlorpyrifos 500g/L + cypermethrin 50g/L.*

Keywords: Brassicaceae, *Plutella xylostella*, *Coconut Shell Liquid Smoke, Rice Husk Liquid Smoke.*