



Intisari

KELANGSUNGAN HIDUP LARVA *Lepidiota stigma* PADA BEBERAPA SIFAT TANAH

MIRAWATI BR. SITEPU

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Penelitian ini bertujuan untuk mengetahui sifat fisika dan kimia tanah yang mendukung keberlangsungan hidup larva *Lepidiota stigma*. Keberlangsungan hidup larva *Lepidiota stigma* dilihat dari berat larva, lama stadia larva, kemampuan membuat sarang, kemampuan larva berubah menjadi pupa, lama stadia pupa, dan tingkat mortalitas larva dan pupa. Penelitian ini menggunakan sampel tanah diambil dari lima lokasi (Panjatan, Berbah, Kalasan, Semanu, Ngablak). Sampel tanah dianalisis sifat fisika (tekstur tanah dan daya hantar listrik) dan sifat kimia (pH tanah, kandungan bahan organik, dan kandungan NPK tersedia). Pengambilan data dilakukan dengan menimbang larva setiap 5 hari sekali. Hasil penelitian menunjukkan sifat fisika tanah (tekstur tanah) dan sifat kimia tanah (pH tanah) mempengaruhi keberlangsungan hidup larva *L. stigma*. Tekstur tanah mempengaruhi lama stadia larva dan pupa *L. stigma*. Tingginya fraksi pasir pada tanah mempercepat waktu perubahan stadia larva dan pupa *L. stigma*. Sifat kimia tanah berupa pH tanah menunjukkan pengaruh yang signifikan terhadap berat larva *Lepidiota stigma*. Peningkatan pH tanah akan menurunkan berat larva dan menekan perkembangan larva *Lepidiota stigma*. Tanah dari Kecamatan Berbah (tekstur tanah pasir dan pH tanah 5,11) dan Kalasan (tekstur tanah pasir geluhan dan pH tanah 4,15) paling sesuai untuk kelangsungan hidup larva *Lepidiota stigma*.

Kata kunci: larva *Lepidiota stigma*, tekstur tanah, pH tanah



abstract

***Lepidiota stigma*'s LARVAE SURVIVAL IN SEVERAL SOIL CHARACTERS**

MIRAWATI BR. SITEPU

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This research was aimed to know the survival of *Lepidiota stigma* larvae on both soil physical and chemical characteristics which are used to support *Lepidiota stigma*'s survival ability. *L. stigma*'s larvae survival ability was measured from its weight, life duration, cocoon creation ability to pupation ability, pupa life duration, and larval-pupal mortality. This research used soil samples taken from five locations (Panjatan, Berbah, Kalasan, Semanu, Ngablak). Samples were analyzed on its soil physical (soil texture and electrical conductivity) and chemical characteristics (soil pH, organic matter content and available NPK content). Data collection was conducted by weighing larvae once in 5 days. This research result showed that soil texture and chemistry influence *L. stigma* larvae survival ability. Soil texture showed significant influence to *L. stigma*'s life duration. The high fraction of sand in the soil accelerates time to change stadia larvae and pupae of *L. stigma*. Chemical characteristics described as pH showed significant influence to *L. stigma*'s weight. Increasing the pH of the soil would decrease weight and suppress the development of *Lepidiota stigma* larvae. Soil from Berbah (sandy soil texture and pH 5,11) and Kalasan (loamy soil texture and pH 4,15) are most suitable for *Lepidiota stigma*'s survival ability.

Key words : Larvae,*Lepidiota stigma*,Soil texture, soil pH.