

OPTIMASI PAKAN PADA BUDI DAYA ULAT SUTRA ERI *Samia cynthia* (Drury, 1773) (LEPIDOPTERA: SATURNIIDAE)

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INTISARI

Budi daya ulat sutra adalah salah satu prospek komoditas alam di Indonesia yang memiliki potensi tinggi. *Samia cynthia* (Drury, 1773) atau ulat sutra eri merupakan jenis ulat sutra murbei yang dapat menghasilkan sutra alam dengan daun jarak kepyar *Ricinus communis* (Linn.) sebagai pakan primer, sedangkan daun singkong *Manihot esculenta* (Crantz.) merupakan pakan sekunder. Kelompok Usaha JAMTRA merupakan kelompok budi daya sutra *Samia cynthia* di Kulon Progo, Yogyakarta. Penelitian ini bertujuan untuk memahami optimasi pakan yang paling tepat pada *S. cynthia* di JAMTRA. Penelitian dilaksanakan menggunakan metode Rancangan Acak Lengkap dengan 4 jenis perlakuan pakan dan 5 kali pengulangan, yaitu P1=pemberian pakan daun jarak kepyar (instar I-V); P2=pemberian pakan daun jarak kepyar (instar I-III) dan daun singkong (instar IV-V); P3=pemberian pakan daun singkong (instar I-V); P4=pemberian pakan daun singkong (instar I-III) dan daun jarak kepyar (instar IV-V). Selain itu, dilakukan uji hemolimfe larva untuk mengetahui kandungan nutrisi pakan. Hasil menunjukkan bahwa kebutuhan pakan total dalam satu siklus terbesar terdapat pada perlakuan P1 ($15,49 \pm 0,89$ g) atau senilai ± 2 helai daun. Kebutuhan pakan fase awal larva berpengaruh secara signifikan yang terlihat pada perlakuan P4 memiliki nilai paling besar pada berat kokon segar ($1,98 \pm 0,45$ g) dan kokon bersih ($0,3 \pm 0,07$ g), serta paling kecil pada persentase kokon cacat (16,67%). Sementara signifikansi fase dewasa larva terlihat pada perlakuan P2 yang memiliki nilai paling besar pada kemunculan imago (65,63%), *Effective Rate of Rearing* (ERR) (92,75%), dan fekunditas telur ($106,75 \pm 5,91$ g). Kadar protein hemolimfe larva yang mengonsumsi daun jarak kepyar atau P1 memiliki nilai paling besar ($27,26 \mu\text{g/mL}$).

Kata kunci: budi daya, jarak kepyar, pakan, singkong, ulat sutra eri

FEED OPTIMIZATION OF ERI SILKWORM *Samia cynthia* (Drury, 1773) (LEPIDOPTERA: SATURNIIDAE) CULTIVATION

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ABSTRACT

Silkworm cultivation is one of the natural commodity prospects in Indonesia that has high potential. *Samia cynthia* (Drury, 1773) or eri silkworm is a type of mulberry silkworm that can produce natural silk with castor bean leaves *Ricinus communis* (Linn.) as primary food, while cassava leaves *Manihot esculenta* (Crantz.) is secondary food. The JAMTRA Business Group is a *Samia cynthia* silk cultivation group in Kulon Progo, Yogyakarta. This research aims to understand the most appropriate feed optimization analysis for *S. cynthia*. The study was conducted using a Completely Randomized Design (CRD) method with 4 treatments and 5 repetitions each, namely P1 = feeding castor leaves (instars I-V); P2 = feeding castor bean leaves (instars I-III) and cassava leaves (instars IV-V); P3=feeding cassava leaves (instars I-V); P4 = feeding cassava leaves (instars I-III) and cassava leaves (instars IV-V). In addition, a hemolymph larvae test was carried out to determine the nutritional content of the feed. The results showed that the largest total feed consumption in one cycle was in treatment P1 (15.49 ± 0.89 g) or a value of ± 2 leaves. The food requirements of the early larval phase had a significant effect, which was seen in treatment P4, which had the greatest value in the weight of fresh cocoons (1.98 ± 0.45 g) and clean cocoons (0.3 ± 0.07 g), and the smallest in the percentage defective cocoons (16.67%). Meanwhile, the significance of the adult larval phase was seen in treatment P2 which had the greatest values for imago emergence (65.63%), *Effective Rate of Rearing* (ERR) (92.75%), and egg fecundity (106.75 ± 5.91 g). The protein content of hemolymph larvae that consumed castor leaves or P1 leaves had the greatest value ($27.26 \mu\text{g/mL}$).

Keyword: cassava, castor, cultivation, eri silkworm, feed