PENGARUH LEVEL PROTEIN MEDIA BIAKAN BERBEDA TERHADAP KANDUNGAN KITIN, PROTEIN KASAR, DAN RETENSI NITROGEN ULAT KANDANG (*Alphitobius diaperinus*)

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ABSTRAK

Penelitian ini bertujuan untuk mempelajari pengaruh level protein media biakan berbeda terhadap kandungan kitin, protein kasar, dan retensi nitrogen ulat kandang (*Alphitobius diaperinus*). Metode penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 5 kali ulangan. Perlakuan adalah pemberian level protein media biakan berbeda dengan perlakuan A (13%), B (15%), C (17%), dan D (19%). Peubah yang diamati adalah kandungan kitin (%), kandungan protein kasar (%BK), dan retensi nitrogen (%) ulat kandang. Hasil penelitian menunjukkan bahwa perbedaan level protein media biakan berpengaruh sangat nyata ($P<0,01$) terhadap kandungan kitin, kandungan protein kasar, dan retensi nitrogen ulat kandang. Kesimpulan penelitian ini adalah protein media biakan 19% merupakan perlakuan terpilih untuk budidaya ulat kandang dan diperoleh kandungan kitin 21,17%, kandungan protein kasar 46,77%, dan retensi nitrogen 78,72%.

Kata kunci: Ulat Kandang, Protein Media Biakan, Kitin, Protein Kasar, Retensi Nitrogen.

THE EFFECT OF DIFFERENT LEVELS OF PROTEIN IN CULTURE MEDIA ON CHITIN CONTENT, CRUDE PROTEIN, AND NITROGEN RETENTION IN LESSER MEALWORMS (*Alphitobius diaperinus*)

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ABSTRACT

This study aims to investigate the effect of different protein levels in culture media on the chitin content, crude protein, and nitrogen retention of lesser mealworms (*Alphitobius diaperinus*). The research method used was a Completely Randomized Design (CRD) with 4 treatments and 5 replicates. The treatments involved varying protein levels in the culture medium: Treatment A (13%), B (15%), C (17%), and D (19%). The variables observed were chitin content (%), crude protein content (%CP), and nitrogen retention (%) in lesser mealworms. The results showed that differences in protein levels in the culture medium had a highly significant effect ($P<0.01$) on chitin content, crude protein content, and nitrogen retention in lesser mealworms. This study concluded that 19% culture medium protein was the preferred treatment for lesser mealworms cultivation, yielding a chitin content of 21,17%, crude protein content of 46,77%, and nitrogen retention of 78.72%.

Keywords: Lesser Mealworms, Culture Medium's Protein, Chitin, Crude Protein, Nitrogen Retention.