

## Intisari

Larva *Hermetia illucens* (*maggot*) adalah agen biokonversi limbah agroindustri yang mengandung protein tinggi sehingga berpotensi sebagai pakan ikan. Penelitian ini bertujuan untuk mengetahui pertumbuhan, biomassa dan nutrisi terbaik larva *H. illucens* yang tumbuh di media berbeda serta pengaruhnya terhadap sintasan dan pertumbuhan lele dumbo (*Clarias sp.*). Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap dengan empat perlakuan yaitu: *Palm Kernel Meal* (PKM) (P0); limbah buah-buahan (P1); limbah sayuran (P2) dan seresah daun (P3). Penelitian dilanjutkan dengan menguji larva *H. illucens* yang diberikan untuk lele dumbo, perlakuan yang diberikan yaitu M0: pemberian larva *H. illucens* dari media tumbuh PKM; M1: pemberian larva *H. illucens* dari media tumbuh limbah buah-buahan; M2: pemberian larva *H. illucens* dari media tumbuh limbah sayuran dan M3: pemberian larva *H. illucens* dari media tumbuh seresah daun. Data dianalisis menggunakan *One way ANOVA* dengan tingkat signifikansi  $\alpha = 5\%$ . Uji DMRT (*Duncan's Multiple Range Test*) dilakukan jika terdapat hasil yang beda nyata. Hasil penelitian menunjukkan bahwa larva *H. illucens* di media PKM memiliki pertumbuhan tertinggi hingga hari ke-14, namun pertumbuhan tertinggi dihasilkan larva *H. illucens* dari media limbah buah-buahan pada hari ke-21. Media limbah buah-buahan menghasilkan biomassa larva *H. illucens* tertinggi. Media limbah sayuran menghasilkan larva *H. illucens* dengan nutrisi terbaik, yaitu protein sebesar 41,83%, lemak sebesar 9,57%, abu sebesar 12,90% dan serat kasar sebesar 17,17%. Sintasan pada semua perlakuan bernilai 100% dan pertumbuhan terbaik lele dumbo diperoleh pada perlakuan pemberian larva *H. illucens* dari media tumbuh limbah sayuran.

Kata Kunci: *Clarias sp.*, *Hermetia illucens*, limbah buah-buahan, limbah sayuran, seresah daun

### *Abstract*

*Hermetia illucens* larvae (maggot) were bioconversion agents from agroindustry waste containing high protein therefore it was potential to be fish food. This study aims to know the best growth, biomass and nutrients from *H. illucens* larvae growing in different media and their effects on survival and growth of catfish (*Clarias sp.*). This study used a Completely Randomized Design which consist of four treatments: *Palm Kernel Meal* (PKM) (P0); fruit waste (P1); vegetables waste (P2) and whithered leaves (P3). This study was continued by testing *H. illucens* larvae given to catfish which consist of four treatments: M0: giving *H. illucens* larvae obtained from PKM media; M1: giving *H. illucens* larvae obtained from fruit waste media; M2: giving *H. illucens* larvae obtained from vegetables waste media and M3: giving *H. illucens* larvae obtained from whithered leaves media. The data were analyzed used One way ANOVA with  $\alpha=5\%$ . Duncan's Multiple Range Test (DMRT) was used when significant differences were detected. The results showed that *H. illucens* larvae in the PKM media has the highest growth until day 14<sup>th</sup>, however the highest growth produces of *H. illucens* from the fruit waste media in day 21<sup>th</sup>. The result of fruit waste media produce highest biomass of larvae *H. illucens*. Vegetables waste media provides the best *H. illucens* nutrients containing 41,83% proteins, 9,57% fat, 12,90% ash and 17,17% fiber. The survival of catfish in all treatments were 100% and the best growth was found in catfish which given *H. illucens* larvae from vegetables waste media.

Keywords: *Clarias sp.*, *Hermetia illucens*, fruit waste, vegetables waste, whithered leaves