

INTISARI

PENGARUH SUPLEMENTASI ASAM AMINO TRIPTOFAN DALAM PAKAN BUATAN TERHADAP PERKEMBANGAN, PERTUMBUHAN, DAN SINTASAN LARVA UDANG GALAH (*Macrobrachium rosenbergii*, de Man 1879) STRAIN SIJAWA

Penelitian ini bertujuan untuk mengevaluasi pengaruh suplementasi asam amino triptofan dalam pakan terhadap perkembangan, pertumbuhan, dan sintasan larva udang galah (*Macrobrachium rosenbergii*) strain SiJawa. Penelitian dilakukan di UKBAP Samas menggunakan Rancangan Acak Kelompok Lengkap dengan perlakuan empat dosis triptofan (0; 5; 7,5; dan 10 g/kg pakan buatan) dan tiga ulangan. Larva dipelihara di dalam bak bervolume 100 L dengan padat tebar 1.000 ekor/bak. Pakan alami *Artemia* sp. diberikan selama DOC 1 hingga DOC 36 dan pakan buatan *egg custard* diberikan selama DOC 11 hingga DOC 36. Parameter yang diamati meliputi perkembangan stadia (*Larval Stage Index*), laju perkembangan, waktu pencapaian post-larva, pertumbuhan bobot mutlak, laju pertumbuhan bobot spesifik, sintasan, dan kualitas air. Hasil penelitian menunjukkan bahwa suplementasi triptofan tidak berpengaruh nyata ($P > 0,05$) terhadap perkembangan dan pertumbuhan bobot larva. Namun demikian, triptofan berpengaruh signifikan ($P > 0,05$) terhadap sintasan, dengan dosis 10 g/kg pakan menghasilkan nilai terbaik sebesar 42,83%.

Kata kunci: larva, perkembangan, pertumbuhan, sintasan, triptofan, udang galah

ABSTRACT

THE EFFECT OF TRYPTOPHAN AMINO ACID SUPPLEMENTATION IN THE DIET ON THE DEVELOPMENT, GROWTH, AND SURVIVAL RATES OF LARVAE OF GIANT FRESHWATER PRAWN (*Macrobrachium rosenbergii*, de Man 1879) SIJAWA STRAIN

This study aimed to evaluate the effect of dietary tryptophan supplementation on development, growth, and survival larvae of the giant freshwater prawn (*Macrobrachium rosenbergii*) SiJawa strain. The research was conducted at the UKBAP Samas facility using a Completely Randomized Block Design (RCBD) with four tryptophan dosage treatments (0; 0.5; 0.75; and 10 g per kg of formulation feed) and three replications. Larvae were reared in 100-liter tanks at a stocking density of 1,000 individuals per tank. Live feed *Artemia* sp. was provided from day 1 to day 36 (DOC 1–36), while formulated egg custard feed was administered from DOC 11 to DOC 36. Observed parameters included larval stage development (Larval Stage Index), developmental rate, time to reach *post-larva* stage, absolute weight growth, specific weight growth rate, survival rate, and water quality. The results indicated that tryptophan supplementation had no significant effect ($P > 0.05$) on larval development and weight growth. However, tryptophan significantly affected ($P < 0.05$) larval survival, with a dose of 10 g/kg of formulation feed yielding the bestest value of 42.83%.

Keywords: development, giant freshwater prawn, growth, larvae, survival rate, tryptophan