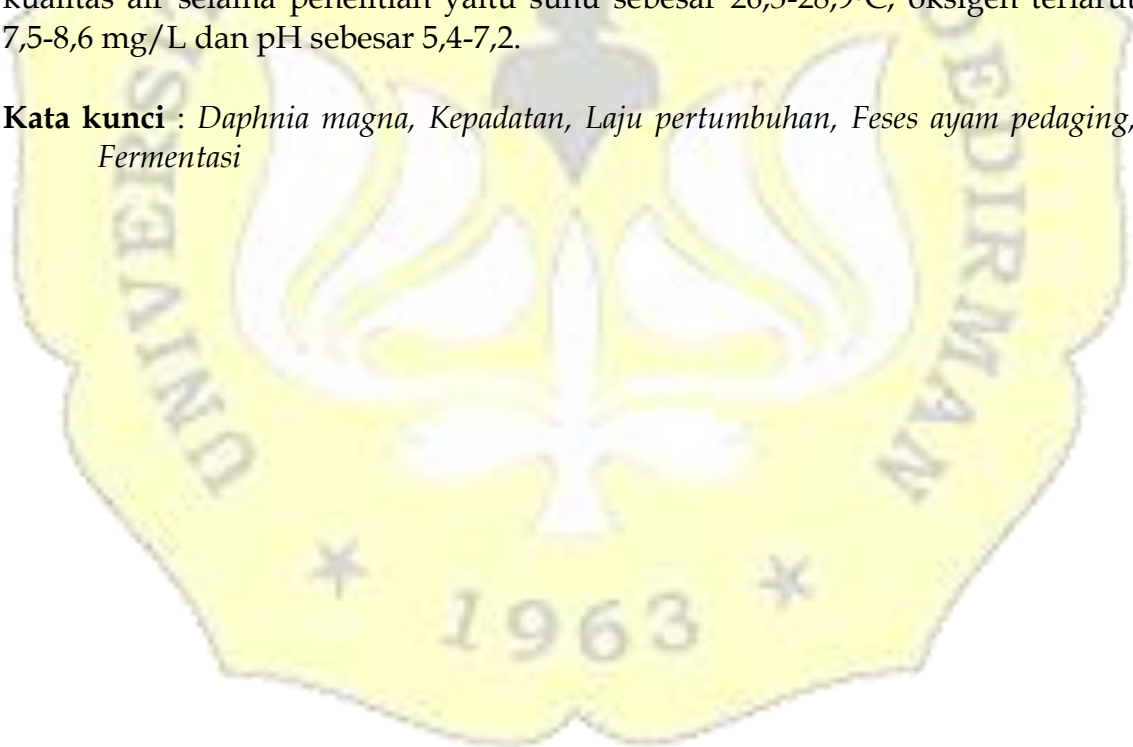


ABSTRAK

Penelitian berjudul pupuk organik cair dari feses ayam pedaging terfermentasi dalam kultur *Daphnia magna*. Tujuan penelitian adalah mengetahui pengaruh penambahan pupuk organik cair dari feses ayam pedaging terfermentasi terhadap kepadatan, laju pertumbuhan dan dosis yang optimum dalam kultur *Daphnia magna*. Metode penelitian adalah Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan ulangan 3 kali, yaitu K : Kontrol (tanpa pupuk), P1 : Pupuk organik cair dari feses ayam pedaging terfermentasi dengan dosis 2 ml/L, P2 : dosis 2,5 ml/L, P3 : dosis 3 ml/L dan P4 : dosis 3,5 ml/L. *Daphnia magna* dikultur selama 12 hari dalam wadah dengan volume 3 liter. Parameter yang diamati adalah kepadatan, laju pertumbuhan *Daphnia magna* dan kualitas air. Hasil penelitian menunjukkan bahwa penambahan pupuk organik cair dari feses ayam pedaging terfermentasi dalam kultur *Daphnia magna* berpengaruh nyata terhadap kepadatan berkisar $140,25 \pm 28,95$ Ind/L sampai $614,75 \pm 213,69$ Ind/L dan laju pertumbuhan berkisar $0,13 \pm 0,018$ ind/hari sampai $0,25 \pm 0,030$ Ind/hari. Dosis yang menghasilkan kepadatan dan laju pertumbuhan tertinggi adalah 2-2,5 ml/L dalam kultur *Daphnia magna*. kualitas air selama penelitian yaitu suhu sebesar $26,3-28,90^{\circ}\text{C}$, oksigen terlarut 7,5-8,6 mg/L dan pH sebesar 5,4-7,2.

Kata kunci : *Daphnia magna*, Kepadatan, Laju pertumbuhan, Feses ayam pedaging, Fermentasi



ABSTRACT

The research entitled liquid organic fertilizer from fermented broiler feces in *Daphnia magna* culture. The research objective was to determine the effect of adding liquid organic fertilizer from fermented broiler feces to the optimum density, growth rate and dose in *Daphnia magna* culture. The research method was a completely randomized design (CRD) with 5 treatments and 3 replications, namely K: Control (without fertilizer), P1: Liquid organic fertilizer from fermented broiler feces with a dose of 2 ml/L, P2: a dose of 2.5 ml/L, P3: dose 3 ml/L and P4: dose 3.5 ml/L. *Daphnia magna* was cultured for 12 days in a container with a volume of 3 liters. The parameters observed were density, growth rate of *Daphnia magna* and water quality. The results showed that the addition of liquid organic fertilizer from fermented broiler feces in *Daphnia magna* culture significantly affected densities ranging from 140.25 ± 28.95 Ind/L to 614.75 ± 213.69 Ind/L and growth rates ranging from 0.13 ± 0.018 ind/L days to 0.25 ± 0.030 Ind/day. The dose that produced the highest density and growth rate was 2-2.5 ml/L in *Daphnia magna* culture. The quality of water during the study was a temperature of 26.3-28.90C, dissolved oxygen 7.5-8.6 mg/L and a pH of 5.4-7.2.

Key words: *Daphnia magna*, density, growth rate, broiler feces, fermentation

