

ABSTRAK

Penelitian berjudul Kepadatan dan Laju Pertumbuhan *Daphnia magna* Yang Diberi Pakan Tepung Jagung Terfermentasi Dengan Ragi Tape. Tujuan penelitian adalah untuk mengetahui pengaruh tepung jagung terfermentasi sebagai pakan terhadap kepadatan dan laju pertumbuhan *Daphnia magna*. *Daphnia magna* yang digunakan ukuran 1-2 mm berasal dari penjual pakan alami di daerah Purwokerto. Pemeliharaan dilakukan di Laboratorium Fakultas Perikanan dan Ilmu Kelautan, Universitas Jenderal Soedirman pada bulan Juli-Agustus 2019. Penelitian menggunakan metode eksperimental, rancangan yang dipakai RAL dengan 4 perlakuan 4 ulangan. Perlakuan terdiri dari P0 Kontrol (kotoran ayam 0,25 g/L), P1 50 g/500 ml tepung jagung terfermentasi, P2 75 g/500 ml tepung jagung terfermentasi, dan P3 100 g/500 ml tepung jagung terfermentasi. Variabel adalah kepadatan, laju pertumbuhan populasi, pertumbuhan panjang dan kualitas air. Hasil penelitian menunjukkan bahwa kepadatan rata-rata harian *Daphnia magna* pada P2 tepung jagung terfermentasi dosis 75 g/500 ml dan kotoran ayam (0,25 g/L) memiliki puncak kepadatan rata-rata harian yang cenderung sama, namun hari puncak kepadatan pada kotoran ayam (0,25 g/L) lebih cepat dibandingkan dengan tepung jagung terfermentasi dosis 75 g/500 ml dengan puncak kotoran ayam (0,25 g/L) hari ke-6 dan tepung jagung terfermentasi dosis 75 g/500 ml hari ke-8. Hasil laju pertumbuhan populasi *Daphnia magna* pada perlakuan kontrol (kotoran ayam 0,25 g/L), P1 (tepung jagung terfermentasi 50 g/500 ml) dan P2 (tepung jagung terfermentasi 75 g/500 ml) menunjukkan hasil yang sama. Pertumbuhan panjang *Daphnia magna* 2,57 - 2,6 mm. Kualitas air meliputi suhu 22 - 25, DO 2,31 - 7,24 mg.L⁻¹ dan pH 6.

Kata Kunci : *Daphnia magna*; fermentasi; tepung jagung; ragi tape.

ABSTRACT

A study entitled Destiny and Growth Rate of *Daphnia magna* are Fed Fermented Cornflour Using Tape Yeast. The aim of the research are to knowing that fermented cornflour affect the density and growth rate of *Daphnia magna*. The object is *Daphnia magna* that be used in size 1-2 mm from natural farmer fed in Purwokerto. Culture held in Labratory Faculty of Fisheries and Marine Sciences, Jenderal Soedirman University at July until August 2019. The experiment was arranged in completely randomized design by 4 treatments and 4 replications. The treatments was giving of difference fertilizer in *Daphnia magna* culture, namely: P0 as control (chicken manures 0,25 g/L), P1 50 g/500 ml corn flour fermented, P2 75 g/500 ml corn flour fermented, and P3 100 g/500 ml corn flour fermented. Observed variables were density, growth rate, leght of *Daphnia magna* and water quality. The result of this research show that *Daphnia magna* average densities in fermented cornflour 75 g/500 ml and chicken manures (0,25 g/L) has the same height of densities. Height of densities of chicken manures (0,25 g/L) more quickly than fermented cornflour 75 g/500 ml, chicken manures (0,25 g/L) chicken manures (0,25 g/L) at day 6th and fermented cornflour 75 g/500 ml at day 8th. The growth rate of *Daphnia magna* at control (chicken manures 0,25 g/L), P1 (50 g/500 ml corn flour fermented, P2 75 g/500 ml corn flour fermented shown the same result. The leght of *Daphnia magna* were 2,57 - 2,6 mm. The water quality were temperature 22 - 25, DO 2,31 - 7,24 mg.L⁻¹ and pH 6.

Keywords : *Daphnia magna*; fermented; cornflour; and tape yeast.