ABSTRAK

Cacing Sutra merupakan cacing berwarna merah darah yang termasuk dalam kelas Oligochatea air tawar. Cacing Sutera memiliki kandungan gizi yang cukup baik yaitu protein (57 %), lemak (13,3 %), serat kasar (2,04 %) dan kadar abu (3,6 %). Keberadaan limbah merupakan salah satu alasan penurunan populasi cacing sutra di alam karena limbah dapat menurunkan kualitas air perairan, oleh sebab itu masyarakat mencoba untuk membudidayakan cacing sutra. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan serbuk gergaji kayu dan cocopeat dengan kualitas media yang tepat terhadap peningkatan biomasa, populasi dan pertumbuhan cacing sutra. Penelitian ini dilakukan pada tanggal 27 September sampai 13 November 2024, di Kembang Tani Farm Desa Lancang Barat Kecamatan Muara Batu dan Laboratorium Teknologi Hatchery dan Teknologi Budidaya Program Studi Akuakultur, Fakultas Pertanian Universitas Malikussaleh Aceh Utara. Kualitas media budidaya dilakukan di Laboratorium Balai Standardisasi dan Pelayanan Jasa Industri Medan. Metode penelitian yang digunakan pada penelitian ini adalah metode eksperimental laboratorium. Selanjutnya, rancangan penelitian yang digunakan dalam penelitian ini adalah Rancangan Acak Lengkap (RAL) Non Faktorial. Adapun perlakuan terdiri dari 4 perlakuan dan 3 ulangan perbedaan media fermentasi serbuk gergaji kayu dan cocopeat dalam pertumbuhan, puncak populasi dan biomassa cacing sutera yaitu A (Kontrol media lumpur 80% + Kotoran ayam 20%), B (Fermentasi serbuk kayu 80% + Kotoran ayam 20%), C (Fermentasi cocopeat 80% + Kotoran ayam 20%, D (Fermentasi serbuk kayu 40% + cocopeat 40% + Kotoran ayam 20%). Berdasarkan hasil uji F (ANOVA) menunjukkan bahwa perbedaan media fermentasi berpengaruh nyata terhadap pertumbuhan, puncak populasi dan biomassa cacing sutera. Hasil pengukuran pertumbuhan biomasa, populasi dan laju pertumbuhan tertinggi terdapat pada perlakuan B (Fermentasi serbuk kayu 80% + Kotoran ayam 20%) 13,32 gram/wadah, populasi tertinggi terdapat di hari ke 40 pada perlakuan B (Fermentasi serbuk kayu 80% + Kotoran ayam 20%) dengan nilai 120.111 individu/wadah dan laju pertumbuhan tertinggi terdapat pada perlakuan B (Fermentasi serbuk kayu 80% + Kotoran ayam 20%) yaitu 3,09%.

Kata Kunci: *Cacing Sutra, Cocopeat, Fermentasi, Serbuk Gergaji*

ABSTRACT

Silkworms are blood-red worms that belong to the freshwater Oligochatea class. Silkworms have quite good nutritional content, namely protein (57%), fat (13.3%), crude fiber (2.04%) and ash content (3.6%). The presence of waste is one of the reasons for the decline in the population of silkworms in nature because waste can reduce the quality of water, therefore people try to cultivate silkworms. This study aims to determine the effect of the use of sawdust and cocopeat with the right media quality on increasing biomass, population and growth of silkworms. This study was conducted from September 27 to November 13, 2024, at Kembang Tani Farm, Lancang Barat Village, Muara Batu District and the Hatchery Technology and Cultivation Technology Laboratory, Aquaculture Study Program, Faculty of Agriculture, Malikussaleh University, North Aceh. The quality of the cultivation media was carried out at the Medan Industrial Standardization and Service Center Laboratory. The research method used in this study was the laboratory experimental method. Furthermore, the research design used in this study was the Completely Randomized Design (CRD) Non-Factorial. The treatments consisted of 4 treatments and 3 replications of differences in sawdust and cocopeat fermentation media in growth, peak population and biomass of silk worms, namely A (Control media mud 80% + 20% chicken manure), B (Sawdust fermentation 80% + 20% chicken manure), C (Cocopeat fermentation 80% + 20% chicken manure, D (Sawdust fermentation 40% + cocopeat 40% + 20% chicken manure). Based on the results of the F test (ANOVA) showed that the difference in fermentation media had a significant effect on the growth, peak population and biomass of silk worms. The results of measurements of biomass growth, population and the highest growth rate were in treatment B (Sawdust fermentation 80% + 20% chicken manure) 13.32 grams/container, the highest population was on the 40th day in treatment B (Sawdust fermentation 80% + 20% chicken manure) with a value of 120,111 individuals/container and the highest growth rate was found in treatment B (Sawdust fermentation 80% + Chicken manure 20%) which was 3.09%.

Keywords: *Silk Worms, Cocopeat, Fermentation, Sawdust,*