ABSTRAK

Desa Sekaran merupakan desa padat penduduk yang menghasilkan kuantitas sampah yang tinggi. Sampah yang dihasilkan berupa sampah organik dan sampah anorganik. Pada penelitian ini berfokus terhadap pengolahan sampah organik menggunakan maggot *black soldier fly* (BSF). Tujuan penelitian ini adalah untuk mengetahui seberapa besar tingkat degradasi sampah organik menggunakan maggot BSF. Metode eksperimen dilakukan dengan melakukan pengukuran massa sampah 1 kg dan ada 7 jenis sampah organik yang digunakan untuk eksperimen ini, antara lain sampah tulang, daun basah, daun kering, buah, nasi, dan daging. Kemudian ketujuh jenis sampah tersebut dicampurkan dengan 100 gram, 300 gram, 500 gram, 700 gram, 1000 gram, 1300 gram maggot BSF. Hasil dari observasi ini adalah rata-rata tingkat efektifitas *baby* maggot mendegradasi sampah organik per hari dapat dideskripsikan sebagai berikut: tulang = 6%, daun kering = 7%, daun basah = 7%, daging = 9%, sayur = 10%, buah = 24%, nasi = 9%. Sedangkan Rata-rata tingkat degradasi setiap jenis sampah oleh maggot dewasa yaitu: tulang = 40%, daun kering = 13%, daun basah = 24%, daging = 48%, sayur = 22%, buah = 34%, nasi = 69%. Dapat disimpulkan bahwa jenis sampah yang mudah terdegradasi adalah jenis sampah nasi dan buah, sedangkan yang sulit terdegradasi adalah sampah daun kering. Selain itu, potensi maggot dewasa dalam mendegrasi sampah organik lebih efektif dari pada *baby maggot.*

Kata Kunci: *maggot BSF, sampah organik, tingkat degradasi sampah, TPS 3R SekarManfaat.*

ABSTRACT

Sekaran Village is a densely populated village that produces a high quantity of waste. The waste generated is in the form of organic waste and inorganic waste. In this study, the focus was on processing organic waste using maggot black soldier fly (BSF). The purpose of this study was to find out how big the degradation rate of organic waste was using BSF maggot. The experimental method was carried out by measuring the mass of 1 kg of waste and there were 7 types of organic waste used for this experiment, including bone waste, wet leaves, dry leaves, fruit, rice, and meat. Then the seven types of waste are mixed with 100 grams, 300 grams, 500 grams, 700 grams, 1000 grams, 1300 grams of BSF maggot. The result of this observation is that the average level of effectiveness of baby maggot in degrading organic waste per day can be described as follows: bones = 6%, dry leaves = 7%, wet leaves = 7%, meat = 9%, vegetables = 10%, fruit = 24%, rice = 9%. While the average level of degradation of each type of waste by adult maggots is: bone = 40%, dry leaves = 13%, wet leaves = 24%, meat = 48%, vegetables = 22%, fruit = 34%, rice = 69%. It can be concluded that the types of waste that are easily degraded are rice and fruit waste, while those that are difficult to degrade are dry leaf waste. In addition, the potential for adult maggots to degrade organic waste is more effective than baby maggots.

Keywords: *BSF maggot, organic waste, waste degradation rate, TPS 3R Sekar Manfaat*