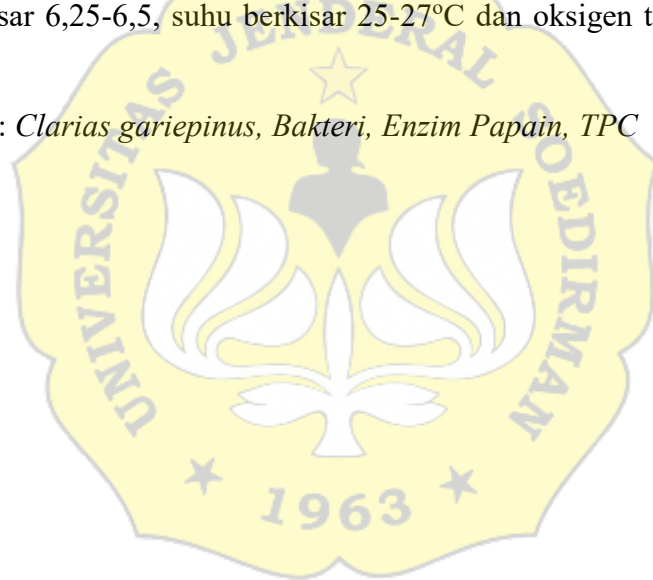


## ABSTRAK

Mikroflora alami saluran pencernaan mempunyai hubungan mutualisme dengan inangnya. Keberadaan mikroflora dipengaruhi oleh lingkungan dan pakan. Enzim papain dalam pakan dapat membantu dan mempercepat proses pencernaan untuk pertumbuhan dan kelangsungan hidup kultivar. Tujuan penelitian ini untuk mengetahui jumlah total bakteri pada saluran pencernaan ikan lele (*Clarias gariepinus*) yang diberi pakan dengan penambahan enzim papain. Penelitian ini menggunakan metode eksperimental dengan 4 perlakuan dan 3 ulangan individu yaitu (K) pakan tanpa penambahan enzim papain, (P1) pakan dengan kandungan enzim papain 1,5%, (P2) pakan dengan kandungan enzim papain 2,0% dan (P3) pakan dengan kandungan enzim papain 2,5%. Sampel saluran pencernaan yang diambil yaitu usus bagian atas, tengah dan bawah. Jumlah bakteri saluran pencernaan dihitung menggunakan metode *total plate count* (TPC). Jumlah bakteri saluran pencernaan ikan lele (*Clarias gariepinus*) relatif sama pada semua perlakuan ( $P > 0,05$ ) yaitu pada kontrol adalah  $44,31 \times 10^5$  CFU/mL/g, perlakuan 1 yaitu  $255,04 \times 10^5$  CFU/mL/g, perlakuan 2 yaitu  $151,78 \times 10^5$  CFU/mL/g dan perlakuan 3 yaitu  $52,99 \times 10^5$  CFU/mL/g. Kualitas air selama penelitian masih sesuai untuk pemeliharaan yaitu pH berkisar 6,25-6,5, suhu berkisar 25-27°C dan oksigen terlarut berkisar antara 5,2-6,2 mg/L.

*Kata kunci* : *Clarias gariepinus*, Bakteri, Enzim Papain, TPC



## ABSTRACT

The microflora of digestive tract has mutual relationship with its host. The availabilities of microflora is influenced by environment and diets. Papain enzyme in the diet can help the acceleration of digestion process for growth and the survival of cultivar. The purpose of the study is to investigate the amount of bacteria available in the digestive tract of catfish (*Clarias gariepinus*) fed by diets containing papain enzyme. The method used in the study was experimental method with four treatments and three individual tests. They were (K) feeds without papain enzyme, (P1) feeds with 1,5% papain enzyme, (P2) feeds with 2% papain enzyme and (P3) feeds with 2,5% papain enzyme. The sample of digestive tract for the study, was the upper, the middle and the lower intestines. The amount of bacteria inside the digestive tract was calculated by using *Total Plate Count* (TPC). The amount of bacteria in the digestive tract of catfish (*Clarias gariepinus*) was relatively the same in all treatments ( $P>0,05$ ) control was  $44,31 \times 10^5$  CFU/mL/g, treatment 1 was  $255,04 \times 10^5$  CFU/mL/g, treatment 2 was  $151,78 \times 10^5$  CFU/mL/g and treatment 3 was  $52,99 \times 10^5$  CFU/mL/g. Water quality during the study is still suitable for maintenance pH was 6,25-6,5, the temperature was 25-27°C, the dissolved oxygen was between 5,2-6,2 mg/L during the rearing time.

**Keywords** : *Clarias gariepinus*, bacteria, papain enzyme, TPC

