

## ABSTRAK

Nutrient Agar merupakan jenis media umum yang sering digunakan pada laboratorium, harga media ini relatif mahal. Nutrient agar berbentuk padat, terdiri atas campuran ekstrak daging, pepton serta agar. Ikan teri jengki dan ikan layang deles jumlahnya melimpah di Indonesia. Ikan teri jengki (*Stolephorus indicus*) mengandung protein 51,54%, sementara ikan layang deles (*Decapterus macrosoma*) mengandung protein sebesar 57,89%. *Escherichia coli* digunakan sebab bakteri ini merupakan salah satu jenis mikroorganisme kontrol positif yang direkomendasikan berdasarkan *Data Sheet* Nutrient Agar Oxoid.

Penelitian ini bersifat eksperimental dengan tiga perlakuan pada masing-masing bahan yaitu variasi massa 3 gram, 4 gram dan 5 gram yang dilakukan di Laboratorium Bakteriologi Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Surabaya.

Hasil penelitian menunjukkan jumlah koloni rata-rata *Escherichia coli* yang tumbuh pada kontrol positif sebanyak  $118 \times 10^{13}$ , sementara pada media ikan teri jengki variasi massa 3 gram adalah  $72 \times 10^{13}$  CFU/mL, 4 gram sebanyak  $85 \times 10^{13}$  CFU/mL, 5 gram sebanyak  $94 \times 10^{13}$  CFU/mL. Pada media ikan layang deles variasi 3 gram sebanyak  $88 \times 10^{13}$  CFU/mL, 4 gram sebanyak  $96 \times 10^{13}$  CFU/mL, 5 gram  $108 \times 10^{13}$  CFU/mL. Variasi massa yang paling baik dan mendekati hasil kontrol positif (NA) pada ikan teri jengki dan ikan layang deles adalah variasi massa 5 gram.

**Kata kunci:** Ikan teri jengki, Ikan layang deles, *Escherichia coli*, Nutrient agar

## ABSTRACT

Nutrient agar is a common type of medium that is often used in the laboratory and the price is relatively high. The nutrient agar medium is solid and consists of a mixture of meat extract, peptone and agar. Indian anchovy and shortfin scad are abundant in Indonesia. Indian anchovy (*Stolephorus indicus*) contains 51.54% protein and shortfin scad (*Decapterus macrosoma*) contains 57.89% protein. *Escherichia coli* was used because this bacterium is one of the recommended positive control microorganisms based on the nutrient agar data sheet.

This study was conducted at the Bacteriology Laboratory, Medical Laboratory Technology, Institute of Health, Health Ministry of Surabaya, using three treatments of each material, namely mass changes of 3 grams, 4 grams, and 5 grams.

The results showed that the average number of *Escherichia coli* colonies growing on the positive control was  $118 \times 10^{13}$  CFU/mL, whereas in indian anchovy medium, the mass variation was 3 grams  $72 \times 10^{13}$  CFU/mL, 4 grams  $85 \times 10^{13}$  CFU/mL, 5 Shown that it was a gram.  $94 \times 10^{13}$  CFU/mL. ml. Shortfin scad variation medium from 3 grams to  $88 \times 10^{13}$  CFU / mL, from 4 grams to  $96 \times 10^{13}$  CFU/mL, and from 5 grams to  $108 \times 10^{13}$  CFU/mL. The closest result to the best mass variability and positive control (NA) is the Indian anchovy and shortfin scad, with a mass variability of 5 grams.

**Keywords:** Indian anchovy, Shortfin scad, *Escherichia coli*, Nutrient agar.