

**PERHITUNGAN *TOTAL PLATE COUNT* DAN IDENTIFIKASI CEMARAN
BAKTERI *Escherichia coli* PADA DAGING KAMBING DI BEBERAPA
PASAR TRADISIONAL KOTA YOGYAKARTA DAN KABUPATEN
SLEMAN**

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INTISARI

Pangan merupakan salah satu kebutuhan paling mendasar bagi manusia. Kebutuhan protein hewani dipenuhi masyarakat salah satunya dari konsumsi daging kambing karena memiliki nilai gizi yang tinggi. Daging mudah terkontaminasi oleh mikroba dan berpotensi menyebabkan *foodborne disease*, sehingga perlu dilakukan pengawasan terhadap kontaminasi akibat cemarkan mikrobiologi. Tujuan dari penulisan Tugas Akhir ini adalah untuk mengetahui jumlah total mikroba dan cemarkan bakteri *Escherichia coli* (*E. coli*) pada daging kambing yang beredar di beberapa pasar tradisional Kota Yogyakarta dan Kabupaten Sleman. Total sebanyak 16 Sampel daging kambing diambil dari beberapa pasar tradisional Kota Yogyakarta dan Kabupaten Sleman. Metode pengambilan sampel dilakukan secara *purposive sampling*. Pengujian sampel meliputi pengujian *total plate count* (TPC), serta pengujian mikrobiologi *E. coli* dengan menggunakan media *MacConkey agar* (MCA) dan *eosin methylene blue agar* (EMBA). Analisis data dilakukan secara deskriptif dengan merujuk pada Standar Nasional Indonesia (SNI). Hasil pengujian menunjukkan pada uji TPC diketahui 11 sampel (69%) melebihi batas maksimum cemarkan mikroba (BMCM) dan 5 sampel (31%) memenuhi standar BMCM, sedangkan hasil uji mikrobiologi *E. coli* menghasilkan 14 sampel (87%) positif dan 2 sampel (13%) negatif *E. coli*.

Kata kunci : cemarkan, daging kambing, *Escherichia coli*, *foodborne disease*, mikroba

**TOTAL PLATE COUNT AND IDENTIFICATION OF *Escherichia coli*
BACTERIAL CONTAMINATION IN GOAT MEAT FROM SEVERAL
TRADITIONAL MARKETS IN YOGYAKARTA CITY AND SLEMAN
REGENCY**

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ABSTRACT

Food is one of the most fundamental human needs. The demand for animal protein is met by the community, in part through the consumption of goat meat, due to its high nutritional value. Meat is easily contaminated by microbes and has the potential to cause foodborne diseases, making it necessary requiring supervision for chemical, physical, and microbial contamination. The aim of this Final Project is to determine the total microbes and contamination of *Escherichia coli* (*E. coli*) bacteria in goat meat sold in several traditional markets in Yogyakarta City and Sleman Regency. A total of 16 goat meat samples were taken taken from various traditional markets in Yogyakarta City and Sleman Regency. Sample collection was conducted using purposive sampling. Sample testing included *Total Plate Count* (TPC) testing and microbiological testing of *E. coli* using *MacConkey Agar* (MCA) and *Eosin Methylene Blue Agar* (EMBA) media. Data analysis was performed descriptively by referring to the SNI standard. The test results showed that the TPC test found that 11 samples (69%) exceeded the BMCM standard, and 5 samples (31%) met the BMCM standard, while the results of *E. coli* microbiological test resulted in 14 samples (87%) positive and 2 samples (13%) negative for *E. coli*.

Keywords : contamination, *Escherichia coli*, *foodborne disease*, goat meat, *microbe*