

ABSTRAK

Es teh jumbo merupakan minuman siap saji yang banyak dijual oleh pedagang kaki lima dan diminati masyarakat, khususnya di kawasan perkotaan, namun penyajiannya yang umumnya dilakukan secara terbuka berpotensi menimbulkan kontaminasi mikrobiologis, terutama bakteri coliform sebagai indikator pencemaran fekal. Penelitian dilaksanakan untuk mengetahui tingkat kontaminasi bakteri coliform serta mengidentifikasi keberadaan *Escherichia coli* pada es teh jumbo yang dijual di Jalan Ayahanda, Kota Medan, dengan menggunakan metode deskriptif kuantitatif berdesain potong lintang (cross-sectional). Lima sampel diambil secara purposive sampling dan diperiksa menggunakan metode Most Probable Number (MPN) melalui uji penduga Lactose Broth, uji penegasan Brilliant Green Lactose Bile Broth (BGLB), serta uji pelengkap Eosin Methylene Blue (EMB). Temuan penelitian memperlihatkan keseluruhan sampel positif terkandung bakteri coliform dengan nilai MPN sekitar 240 sampai lebih dari 1100 MPN/100 mL, sehingga tidak memenuhi standar kualitas mikrobiologis minuman siap konsumsi yang mensyaratkan 0 MPN/100 mL; selain itu, pada media EMB ditemukan koloni berwarna hijau metalik yang menandakan adanya *Escherichia coli*. Dengan demikian, seluruh sampel dinyatakan terkontaminasi bakteri coliform fekal dan tidak layak dikonsumsi, sehingga diperlukan peningkatan penerapan higiene dan sanitasi dalam proses pengolahan serta penyajian untuk mencegah risiko gangguan kesehatan masyarakat.

Kata Kunci : es teh jumbo, *Escherichia coli*, *Most Probable Number* (MPN), keamanan pangan

ABSTRACT

Jumbo iced tea is a ready-to-drink beverage widely sold by street vendors and favored by the public, particularly in urban areas; however, its commonly open preparation and serving methods increase the risk of microbiological contamination, especially by coliform bacteria as indicators of fecal pollution. This study aimed to determine the level of coliform contamination and to identify the presence of Escherichia coli in jumbo iced tea sold on Jalan Ayahanda, Medan City, using a descriptive quantitative approach with a cross-sectional design. Five samples were selected through purposive sampling and examined using the Most Probable Number (MPN) method, including presumptive testing with Lactose Broth, confirmatory testing with Brilliant Green Lactose Bile Broth (BGLB), and completed testing with Eosin Methylene Blue (EMB) agar. The results showed that all samples tested positive for coliform bacteria, with MPN values ranging from 240 to >1100 MPN/100 mL, indicating that none met the microbiological quality standard for ready-to-drink beverages, which requires 0 MPN/100 mL; moreover, metallic green colonies observed on EMB agar indicated the presence of Escherichia coli. In conclusion, all jumbo iced tea samples examined were contaminated with fecal coliform bacteria and were deemed unsafe for consumption, highlighting the need to improve hygiene and sanitation practices in beverage processing and serving to prevent potential public health risks.

Keyword : jumbo iced tea, coliform bacteria, Escherichia coli, Most Probable Number (MPN), food safety