

ABSTRAK

AGNES AYU PUTRI SANTOSO, 2025, ANALISIS CEMARAN MIKROBIOLOGIS PADA PRODUK LATIAO YANG BEREDAR DI ONLINE SHOP BERDASARKAN UJI ALT, AKK, MPN, *Salmonella*, DAN *Bacillus cereus*, KARYA TULIS ILMIAH, PROGRAM STUDI D-III ANALIS FARMASI DAN MAKANAN, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA. Dibimbing oleh Dr. Ana Indrayati, S.Si., M.Si

Produk Latiao merupakan makanan olahan tepung asal Tiongkok yang saat ini banyak beredar di Indonesia melalui online shop. Popularitas produk ini meningkat, namun potensi cemaran mikroba akibat sanitasi yang buruk selama proses produksi dan distribusi menjadi perhatian serius. Penelitian ini bertujuan untuk menganalisis tingkat cemaran mikrobiologi pada produk Latiao berdasarkan parameter Angka Lempeng Total (ALT), Angka Kapang Khamir (AKK), *Escherichia coli*, *Salmonella* sp., dan *Bacillus cereus* sesuai Peraturan BPOM No. 13 Tahun 2019.

Sampel terdiri dari enam produk, terdiri atas tiga sampel yang telah ditarik peredarannya oleh BPOM dan tiga sampel yang masih memiliki izin edar. Pengujian dilakukan menggunakan metode total plate count, metode *Most Probable Number* (MPN), dan isolasi selektif dengan pewarnaan Gram serta uji biokimia. Hasil penelitian menunjukkan bahwa seluruh sampel melebihi batas maksimal ALT dan positif *E. coli* dengan nilai APM 1100/100g, yang berarti tidak memenuhi syarat keamanan pangan. Sementara itu, semua sampel negatif terhadap cemaran *Salmonella* sp., *Bacillus cereus*, serta kapang dan khamir.

Hasil penelitian menunjukkan bahwa tiga sampel yang telah ditarik peredarannya oleh BPOM dan tiga sampel yang masih memiliki izin edar memiliki nilai ALT yang tidak sesuai dengan standar BPOM. Sampel juga mengandung bakteri *E. coli*. Berdasarkan hasil tersebut, dapat disimpulkan bahwa, semua sampel menunjukkan kualitas mikrobiologi yang tidak sesuai standar BPOM sehingga berpotensi membahayakan kesehatan konsumen.

Kata kunci: Latiao, cemaran mikroba, *Escherichia coli*, *Bacillus cereus*, ALT, AKK, *Sakmonella*, BPOM

ABSTRACT

AGNES AYU PUTRI SANTOSO, 2025, ANALYSIS OF MICROBIOLOGICAL CONTAMINATION IN LATIAO PRODUCTS CIRCULATING IN ONLINE SHOPS BASED ON ALT, AKK, MPN, *Salmonella*, AND *Bacillus cereus* TESTS, ACCORDING TO THE REGULATIONS OF THE AUTHORITY, KARYA TULIS ILMIAH, D-III STUDY PROGRAM OF PHARMACY AND FOOD ANALYST, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY OF SURAKARTA. Supervised by Dr. Ana Indrayati, S.Si., M.Si

Latiao is a processed flour food product from China that is currently widely sold in Indonesia through online shops. The product's popularity is increasing, but the potential for microbial contamination due to poor sanitation during production and distribution is a serious concern. This study aimed to analyze the level of microbiological contamination in Latiao products based on the Total Plate Count (TLC), Yeast Mold Count (YLC), *Escherichia coli*, *Salmonella* sp., and *Bacillus cereus* parameters, as stipulated by BPOM Regulation No. 13 of 2019.

The samples consisted of six products: three that had been withdrawn from circulation by BPOM and three that still had distribution permits. Testing was conducted using the total plate count method, the Most Probable Number (MPN) method, selective isolation using Gram staining, and biochemical tests. The results showed that all samples exceeded the maximum TLC limit and tested positive for *E. coli* with a NER value of 1100/100g, indicating they did not meet food safety requirements. Meanwhile, all samples tested negative for *Salmonella* sp., *Bacillus cereus*, mold, and yeast contamination.

The study results showed that three samples that had been withdrawn from circulation by the BPOM and three samples that still had distribution permits had ALT values that did not comply with BPOM standards. The samples also contained *E. coli* bacteria. Based on these results, it can be concluded that all samples exhibited microbiological quality that did not meet BPOM standards, potentially endangering consumer health..

Keywords: Latiao, microbial contamination, *Escherichia coli*, *Bacillus cereus*, ALT, AKK, *Salmonella*, BPOM