

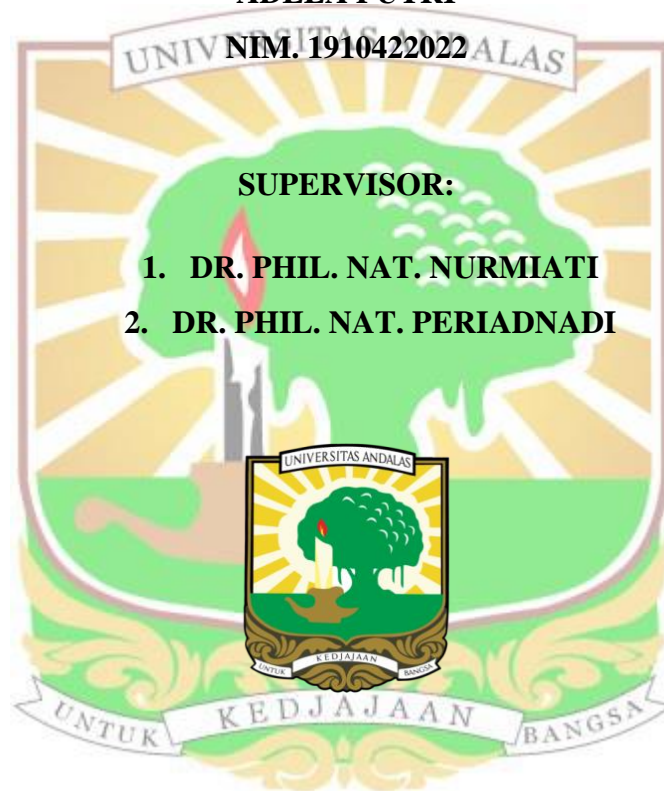
**EXPLORATION OF NATURAL MICROFLORA OF MEAT-BASED
TRADITIONAL CANGKUAK FERMENTATION PRODUCTS IN
KUANTAN MUDIK DISTRICT**

UNDERGRADUATE THESIS

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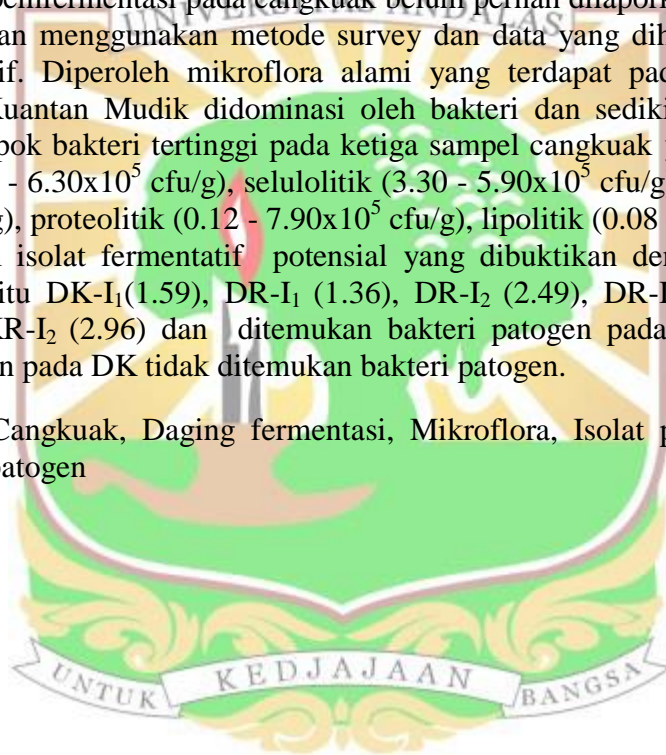
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ABSTRAK

Canguk (bahasa Lubuk Jambi: *canguak*) merupakan makanan fermentasi tradisional asal yang berbahan baku daging yang ditambah dengan rebung bambu betung, *semawuang*/kluwak, garam dan nasi. Proses fermentasi dilakukan tanpa penambahan kultur mikroba (spontan), selama satu sampai tiga minggu di dalam wadah tertutup rapat. Teknik pembuatan, formulasi bahan dan bahan penyusun Canguk memiliki keunikan masing-masing, sehingga dapat menghasilkan produk akhir dengan karakteristik yang berbeda-beda. Penelitian tentang keberadaan mikroba pada produk pangan fermentasi (ikan, susu, sayur) sudah banyak dilakukan, namun informasi mengenai eksplorasi keberadaan mikroflora alami dan potensi invitro bakteri pemfermentasi pada canguk belum pernah dilaporkan. Penelitian ini dilakukan dengan menggunakan metode survey dan data yang dihasilkan disajikan secara deskriptif. Diperoleh mikroflora alami yang terdapat pada ketiga sampel Canguk di Kuantan Mudik didominasi oleh bakteri dan sedikit khamir dengan proporsi kelompok bakteri tertinggi pada ketiga sampel canguk yaitu oleh bakteri fermentatif ($2.0 - 6.30 \times 10^5$ cfu/g), selulolitik ($3.30 - 5.90 \times 10^5$ cfu/g), amilolitik ($1.70 - 4.40 \times 10^5$ cfu/g), proteolitik ($0.12 - 7.90 \times 10^5$ cfu/g), lipolitik ($0.08 - 0.12 \times 10^5$ cfu/g), diperoleh enam isolat fermentatif potensial yang dibuktikan dengan perhitungan nilai indeks yaitu DK-I₁(1.59), DR-I₁ (1.36), DR-I₂ (2.49), DR-I₃ (1.19), DKR-I₁ (2.41), and DKR-I₂ (2.96) dan ditemukan bakteri patogen pada sampel DR dan DKR, sedangkan pada DK tidak ditemukan bakteri patogen.

Kata Kunci: Canguk, Daging fermentasi, Mikroflora, Isolat potensial, Bakteri patogen



ABSTRACT

Cangkuak (Lubuk Jambi language: *cangkuak*) is a fermented food made from meat with betung bamboo shoots or kluwak, salt and rice. The fermentation process is carried out without adding microbial cultures (spontaneous) for one to three weeks in a tightly closed container. Cangkuak's manufacturing technique, ingredient formulation and constituent ingredients are unique, resulting in a final product with different characteristics. Research on the presence of microbes in fermented food products (fish, milk, vegetables) has been widely conducted, but information on exploring the presence of natural microflora and the in vitro potential of fermenting bacteria in cangkuak has never been reported. This research was conducted using a survey method and the resulting data were presented descriptively. It was found that the natural microflora found in the three samples of Cangkuak in Kuantan Mudik was dominated by bacteria, with the highest proportion of bacterial groups in the three Cangkuak samples being fermentative bacteria ($2.0 - 6.30 \times 10^5$ cfu/g), cellulolytic bacteria ($3.30 - 5.90 \times 10^5$ cfu/g), amylolytic bacteria ($1.70 - 4.40 \times 10^5$ cfu/g), proteolytic bacteria ($0.12 - 7.90 \times 10^5$ cfu/g), lipolytic bacteria ($0.08 - 0.12 \times 10^5$ cfu/g). Six potential fermentative isolates were obtained as evidenced by the calculation of index values, namely DK-I₁ (1.59), DR-I₁ (1.36), DR-I₂ (2.49), DR-I₃ (1.19), DKR-I₁ (2.41), and DKR-I₂ (2.96) and pathogenic bacteria were found in DR and DKR samples, while no pathogenic bacteria were found in DK.

Keywords: Cangkuak, Fermented meat, Microflora, Potential isolates, Pathogenic bacteria

