

ABSTRACT

FOOD SAFETY ANALYSIS OF FRESH GOAT MILK BASED ON THE DETECTION OF *Staphylococcus aureus* IN GOAT FARMS IN SLEMAN REGENCY, SPECIAL REGION OF YOGYAKARTA

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Fresh goat milk is a highly nutritious food product that is susceptible to contamination by pathogenic bacteria, one of which is *Staphylococcus aureus*. This bacterium can cause food poisoning (*staphylococcal food poisoning*/SFP) through the production of heat-stable enterotoxins, and has the potential to spread antibiotic resistance via Methicillin-Resistant *Staphylococcus aureus* (MRSA) strains. This study aimed to identify the presence of *Staphylococcus aureus* contamination in fresh goat milk and to assess the potential food safety risks posed. The study was conducted from October to December 2025, with laboratory testing carried out at the Veterinary Public Health Laboratory of the Wates Veterinary Center. A total of 120 fresh goat milk samples were collected from 7 farms in Sleman Regency, Special Region of Yogyakarta. Bacterial identification was performed through enumeration using Millipore MC-Media Pad, isolation on *Baird Parker Agar* (BPA) medium, coagulase testing, Gram staining, and species confirmation using the *Gram-Positive Identification* (GPID) biochemical test. The results showed that 1 out of 120 samples (code SS85), originating from Tolak Miskin Farm (BUMKal Purwobinangun), was confirmed to contain *Staphylococcus aureus* at a count of 30,000 CFU/g. This value exceeded the maximum limit stipulated by SNI 9159:2023 on Microbiological Criteria for Animal-Origin Food, which is 1×10^4 CFU/g. GPID biochemical identification confirmed the presence of *Staphylococcus aureus* with 100% probability. The presence of this contamination highlights the need for improved milking hygiene, equipment and barn sanitation, as well as regular quality monitoring of fresh goat milk to safeguard consumer food safety.

Key words: *fresh goat milk, Staphylococcus aureus, food safety*

BAB I

PENDAHULUAN

Latar Belakang

Kambing perah menjadi salah satu sektor ternak yang marak di Indonesia. Budidaya kambing perah banyak diminati karena merupakan ternak dwiguna yang dapat dimanfaatkan susu dan dagingnya. Salah satu kambing perah di Indonesia adalah kambing Sapera, yaitu persilangan dari kambing Saanen dan kambing Peranakan Etawah (PE). Persilangan ini mampu menghasilkan kambing yang dapat memproduksi susu 4-5 liter/hari dengan kualitas yang baik dan mampu beradaptasi dengan iklim Indonesia (Deviandini dkk., 2023).

Susu memiliki peran penting dalam ketahanan pangan, selain menjadi sumber nutrisi juga berkontribusi pada rantai ekonomi dan sosial bagi masyarakat. Susu kambing banyak dimanfaatkan sebagai alternatif susu sapi. Alergenitas yang lebih rendah dan mudah dicerna membuat susu kambing lebih banyak dipilih sebagai penunjang sumber protein harian masyarakat Indonesia (Wanniatie dkk., 2021). Namun, susu kambing segar dapat menjadi media yang mendukung pertumbuhan berbagai mikroorganisme apabila proses pemerahan, penanganan, penyimpanan, dan distribusinya tidak memenuhi prinsip higiene dan sanitasi.

Sebagian masyarakat mengonsumsi susu kambing segar tanpa pasteurisasi atau mengonsumsi susu secara mentah karena percaya akan khasiatnya jika dibandingkan mengonsumsi susu yang telah diolah. Konsumsi susu kambing segar tanpa pengolahan berkaitan dengan risiko kontaminasi bakteri. Salah satu patogen