

IDENTIFIKASI BAKTERI *Staphylococcus aureus* PADA SUSU SEGAR KAMBING SAPERA DI DUA PETERNAKAN WILAYAH KALASAN, SLEMAN, YOGYAKARTA

Oleh:

Grace Adventnia Sabath Ningtyas
21/474871/SV/19055

INTISARI

Staphylococcus aureus (*S. aureus*) merupakan salah satu bakteri patogen dalam susu segar yang berpotensi menyebabkan penyakit pada manusia maupun hewan. Informasi mengenai cemaran *S. aureus* pada susu segar kambing persilangan Saanen dengan Peranakan Etawa (Sapera) masih terbatas. Penelitian ini bertujuan untuk mengidentifikasi keberadaan bakteri tersebut pada sampel susu segar yang dikoleksi dari dua peternakan di Kalasan, Sleman, Yogyakarta. Metode penelitian yang digunakan adalah *convenience sampling*. Sebanyak 25 sampel susu segar dikoleksi secara aseptis langsung dari kedua puting kambing Sapera kemudian diidentifikasi secara mikrobiologi dan molekuler. Pendekatan mikrobiologi dilakukan dengan isolasi bakteri pada media *Mannitol Salt Agar* (MSA), pewarnaan Gram, uji katalase, dan uji koagulase. Metode molekuler *Polymerase Chain Reaction* (PCR) dilakukan dengan amplifikasi DNA pada gen target 23S rRNA spesifik *S. aureus*. Hasil penelitian menunjukkan bahwa 8% (2/25) sampel positif terkontaminasi *S. aureus*. Hasil penelitian ini menunjukkan perlunya pengendalian mutu susu segar untuk meminimalkan resiko kesehatan akibat kontaminasi bakteri patogen.

Kata Kunci: kambing Sapera, PCR, *Staphylococcus aureus*, susu segar

IDENTIFICATION OF *Staphylococcus aureus* BACTERIA IN RAW MILK OF SAPERA GOATS AT TWO FARMS IN KALASAN, SLEMAN, YOGYAKARTA

By:

Grace Adventnia Sabath Ningtyas
21/474871/SV/19055

ABSTRACT

Staphylococcus aureus (*S. aureus*) is one of the pathogenic bacteria in raw milk which has potential to cause disease for human and animal. The information about the contamination of *S. aureus* in raw milk of goats crossed between Saanen and Peranakan Etawa (Sapera) is still limited. This research aimed to identify the presence of bacteria in raw milk samples that were collected from two farms in Kalasan, Sleman, Yogyakarta. The method that used was convenience sampling. There were twenty-five samples of raw milk collected through direct aseptic method from two Sapera goat teats then identified microbiologically and molecularly. The microbiology approach was carried out by isolating bacteria on Mannitol Salt Agar (MSA), Gram staining, catalase test, and coagulase test. The molecular method Polymerase Chain Reaction (PCR) was carried out by DNA amplification of *S. aureus*-specific 23S rRNA target gene. The results showed that 8% (2/25) of samples were positive for *S. aureus* contamination. These results showed the importance of quality control for raw milk to prevent health risks due to contamination of pathogen bacteria.

Keyword: Sapera goats, PCR, Staphylococcus aureus, raw milk