

**TOTAL PLATE AND TOTAL *Staphylococcus aureus* COUNT OF BEEF  
SOLD AT WET MARKETS IN MULYOREJO  
SUB-DISTRICT SURABAYA**

Nonie Olivia Adia Mutiarasari

**ABSTRACT**

The aim of this study is to know whether the Total Plate Count and total *Staphylococcus aureus* count of beef sold in wet markets in Mulyorejo sub-district below the National Standard Indonesia (SNI 7388:2009) about maximum limit of microbial contamination in food or not. Total of twenty four samples of beef purchased from traditional markets of Tempurejo, Krempyeng Yamuri, Pacar Keling, and Menur in Mulyorejo sub-district Surabaya were examined by Total Plate Count using pour plate method. The sample was also cultured in Mannitol Salt Agar. The colony suspected to be *S. aureus* were taken for identification. The identification of *S. aureus* consists of isolation in Mannitol Salt Agar, Gram staining, catalase test, and coagulase test. Total plate count result showed that four samples were exceeding the National Standard of Indonesia SNI 7388:2009 or  $1 \times 10^6$  CFU/g and the rest were below the maximum Total Plate Count in SNI. The highest Total Plate Count result was  $1,9 \times 10^6$  CFU/g and the lowest was  $7,8 \times 10^4$  CFU/g. The result of identification showed that 100% samples examined were contaminated by *S. aureus* with the highest result was  $1,6 \times 10^4$  CFU/g and the lowest result was  $4,3 \times 10^2$  CFU/g or exceeding the SNI 7388:2009.

**Key words:** Total plate count, *Staphylococcus aureus*, fresh beef