

**ENTEROTOXIN PROPERTIES OF *STAPHYLOCOCCUS AUREUS*
ISOLATED FROM MEAT AND DAIRY PRODUCTS
FROM SMALL FOOD MANUFACTURING
PLANTS IN TRAKYA REGION OF TURKEY**

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The present study was conducted to determine the occurrence and enterotoxigenicity of *Staphylococcus aureus* isolated from meat and dairy products from different small food manufacturing plants in Trakya region of Turkey. A total of 178 meat product samples and dairy product samples were collected and investigated. Overall about 25 % of samples (n=19) were found to be contaminated with *S. aureus*; most common among meat product samples (22.4%), followed by milk product samples (3.6%). A total of 19 *S. aureus* isolates, each representing one isolate per sample were further characterized genotypically and analyzed for the determination of various enterotoxins. According to the cultural, coagulase tube test, clumping factor, staphaurex latex agglutination test and haemolytic properties as well as by PCR amplification of species specific parts of the gene encoding staphylococcal thermonuclease (nuc) the isolates could be identified as *S. aureus*. The ability to produce classical staphylococcal enterotoxins (SEAE) was determined in 8 of 19 isolates by using a commercial ELISA test. SEA was found in the 6 isolates from 4 meat products and 2 dairy products, SED was determined in the 2 isolates from meat products. By PCR amplification, of the 19 isolates, 8 were positive for one or more enterotoxin genes and by PFGE, 19 different genotypes were observed. The results of this study showed the occurrence of enterotoxigenic *S. aureus* in meat and dairy products from small food manufacturing plants in Trakya region of Turkey and highlighted their public health hazards and food safety.

Keywords: *Staphylococcus aureus*, enterotoxins, meat products, dairy products

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