

**ANTIMICROBIAL RESISTANCE PROFILES OF
SALMONELLA SPP. OBTAINED FROM PACKAGED
CHICKEN MEAT PRODUCTS IN ANKARA, TURKEY**

S. Cengiz, Z. Aktaş, E. Bulut, E. Kyere, S. Acar Yavaş, Y. Soyer*

Middle East Technical University,
Dept of Food Engineering, Ankara, Turkey

Technological and safety advances in food industry positively affect the hygienic conditions in factories, thus, lower the risk of food-borne outbreaks. However, the recent studies showed that pathogens could survive even under these precautions. *Salmonella*, which is a food-borne pathogen that causes salmonellosis in humans upon digestion of contaminated food products, is one of these persistent organisms. For this reason, surveillance studies, phenotypic and genotypic characterization studies of *Salmonella* spp. from various resources are a necessity in Turkey. In this study, surveillance of *Salmonella* spp. was carried out by following ISO 6579:2002 protocols and isolates were further characterized by Kaufmann-White scheme, pulsed field gel electrophoresis (PFGE), and phenotypic antimicrobial susceptibility testing (i.e., disk diffusion). Within the scope of this study, package chicken meats were collected from seven different brands with five different chicken meat parts. Surveillance study carried out in three replicates. *Salmonella* prevalence was 44 out of 101 (43.5%). It is found that relationship of brands with *Salmonella* is significantly important. The most prevalent serovar was found to be Infantis (40 out of 44, 90.9%). Other serovars found in poultry samples were S. Newport, and S.Kentucky. PFGE revealed that Infantis isolates were genetically conserved. Using disk diffusion method with eighteen different antimicrobials, we determined all Infantis isolates were resistant to one or more antimicrobials, however Newport isolate was susceptible to all antimicrobials used in this study but nalidixic acid. In this study, it is concluded that authorities should be concerned about the relatively high prevalence of *Salmonella* in packaged chicken meat and multi drug resistance of these isolates.

Keywords: Antimicrobial resistance profile, *Salmonella* spp., packaged chicken meat, Ankara, Turkey

* Corresponding author: ysoyer@metu.edu.tr