

Isolation and identification of Salmonella spp. from some local food products

Abstract

A total of 248 local fresh, dried and intermediate moisture food products were sampled for detecting the presence of Salmonella sp. and further identifying the serotype of the isolated strains, using the International Standard Organisation (ISO) culture method. Samples were purchased from several local open markets and supermarkets. Fresh samples were individually packed in clean plastic bags or bottles (for milk), placed in an ice box and immediately brought to laboratory for analysis. Other samples were directly brought to the laboratory as they were in well packed containers or wrapped. Total plate count was highest for most fresh food samples (103 - 106 per ml rinse water), followed by the intermediate moisture products with count between 10³ - 10⁶ cfu/g. All dried food samples were uncontaminated except for the chicken feed pellets. Approximately 13.3% of the local food products were contaminated by 18 serotype of Salmonella. Chicken carcass was the major source (64.3%) for the different serotype isolated and S. bradford was the most frequent serotype isolated followed by S. weltevreden, S. anatum and S. agona.