

Food safety and Hygiene

September 06-08, 2018 | Edinburgh, Scotland

Evaluation of microbial load of beef of arsi cattle in Adama town, Oromia, Ethiopia

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The study was conducted in Adama city, on carcass samples collected from the Ethiopian breed called Arsi breed cattle with the objective of evaluating beef microbiological qualities with standard procedures. Carcass samples were randomly chosen at abattoir using systematic random sampling techniques. On the night of carcass sampling about 125 cattle were slaughtered and the carcass samples were chosen on every 10 counting. Beef samples were aseptically excised and collected from all parts of the exposed body of carcasses. The methods described by the Nordic Committee on Food Analysis (NMKL) were adopted to analyse each of the parameters considered. Aerobic plate (AP) count, total coliform (TC) count and faecal coliform (FC) counts were significantly different among different sampling days and batches of samples ($P < 0.05$). The mean AP, TC, FC, E. coli and staphylococci counts

were 1.62×10^5 , 5.29×10^1 , 9.05×10^1 , 8.97×10^1 and 5.54×10^5 , respectively. Salmonella and Shigella bacteria were not isolated per 25 g samples. In Adama, carcasses are normally transported to the butchers' shop either in vans, minibus, taxi, three-wheel motor cycle and horse-cart. This exposes the meat to a number of pathogens some of which may be pathogenic.

Speaker Biography

Arse Gebeyehu Wode was born on September 12, 1982 and studied my elementary and high school at Ethiopian Adventist Academy. After successful completion of high school he joined Mekelle University in 2002 to study animal science and got his BSc degree. During his postgraduate study he studied animal production and collected his MSc degree in 2012 from Haramaya University. He is a senior researcher at Adami Tulu Agricultural Research Center with over 10 years of experience in meat and dairy animal research. In his recent research he studied the microbial load of beef of Arsi Cattle (bos indicus Ethiopian breed).

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