Short Communication

Applied Food Science Journal

2021

Volume 5, Issue 3

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 analyze each of the parameters considered. Aerobic Plate (AP) count, Total Coliform (TC) count and Fecal 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 1.62×105, 5.29×101, 9.05×101, 8.97×101 and 5.54×105, 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 horsecart. This exposes the meat to a number of pathogens some of which may be pathogenic.

This work is partly presented at Joint Event on World Congress on Advanced Food Science and Technology October 15-16, 2018 Paris, France