B-82: Comparative study of composition and eating quality characters of beef and buffalo meat

Y C Peiris, H W Cyril, V P Jayawardena
(Dept of Animal Science, Faculty of Agric, Univ of Peradeniya)

The composition and some eating quality characters of beef and buffalo meat were studied. Both meats were analysed for chemical composition (protein, fat, water and ash), water holding capacity, colour and tenderness.

The pH values of buffalo meat and beef were 5.25 ± 0.21 and 5.45 ± 0.28 respectively. There was a significant difference between water, protein, and fat contents of buffalo meat and beef, average values were 76.09 ± 2.32, 16.54 ± 1.20, 7.63 ± 1.97 for the former and 70.38 ± 1.28, 19.23 ± 1.23, 9.43 ± 0.09, for the latter. However, ash content of beef and buffalo meet were not significantly different.

There was no significant difference between shear value and water holding capacity of buffalo meat and beef, the average values were 7.95 ± 0.81, 63.31 ± 2.80 for buffalo meat whereas 7.90 ± 1.20, 64.32 ± 3.23, respectively for beef. Buffalo meat was darker in colour than that of beef and average values (Aus meat colour scores) obtained were 8.26 ± 2.10 and 4.32 ± 1.20, respectively.

There was a significant effect of age and carcass weight on composition and some of the eating quality characters of beef and buffalo meat. Protein, fat, shear value and meat colour increased with increasing animal age and carcass weight. However, water holding capacity and water content decreased with increasing animal age and carcass weight in both beef and buffalo meat.