Comparison of carcass and meat quality in goats subjected to pre-slaughter head-only electrical stunning or slaughtered without stunning

ABSTRACT

The effects of slaughter without stunning in comparison with head-only electrical stunning (HOES) on carcass hemorrhages and meat quality in goats were evaluated. Sixteen Boer crossbred bucks were subjected to either non-stun (NS) or HOES (1 A, for 3 s at 50 Hz). Meat quality traits such as pH, water holding capacity (WHC), color, tenderness, myofibril fragmentation index (MFI) and sarcomere length were assessed on semitendinosus (ST) muscle, while the incidences of hemorrhage were morphologically examined on shoulders and legs of each carcass. The results indicate no differences ($p > 0.05$) in meat quality traits between NS and HOES goats. However, carcasses obtained from the head-only electrically stunned goats had higher ($p < 0.05$) incidence of hemorrhages than those slaughtered without stunning. HOES prior slaughter increased carcass hemorrhages without adversely affecting meat quality traits in goats.

Keyword: Goat; Hemorrhages; Head-only electrical stunning; Meat quality