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456

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Sixteen days' data from an on-going study at a Deer Slaughter Premises were analysed. The study aims to describe behavioural and meat quality variables and relationships between these and pre-slaughter factors such as farm of origin and conditions during transport. To date 1735 (mainly red and red x wapiti hybrid) deer, from 45 farms have been studied.

Fighting (mainly involving biting) in overnight lairage increased with time (mean=6 fights/hr) and differed between nights ($P<0.001$). The percentage of deer showing disturbed behaviours (rearing, jumping, or lying) immediately pre-slaughter ranged from 0-55% of animals within farm loads and varied between days, farms and carriers ($P<0.001$). The frequency of bruising was greatest on the hocks (31.4% of carcasses), followed by the hindquarters (26.4%). Bruising varied between farms ($P<0.001$), ranging from 0-78% of carcasses affected to some degree within farm loads. Mean pH values for leg, loin and shoulder muscles were 5.60 (s.d. 0.123), 5.63 (s.d. 0.155), and 5.72 (0.181) respectively. pH differed between farms and days ($P<0.001$) and was positively related to bruising ($P<0.01$). The incidence of $\text{pH}>5.8$ was 4.8, 9.6 and 22.0% for the leg, loin and shoulder respectively, and varied between days from 1.7% to 30.1%. Only 0.3% of carcasses had $\text{pH}>6.2$. The study has begun to define behavioural and meat quality variables and reveal factors affecting these variables. Because of the emerging importance of day and farm effects the amount and type of data being collected has increased so that contributing factors can be identified.