

BRUISING COMPARISON OF THREE METHODS OF SELLING BEEF CATTLE

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Various sectors of the beef industry are opposed to selling cattle at sale-yards, believing these animals have more bruising than those sent direct to an abattoir. Criticism intensified with the introduction of liveweight selling, due to the additional handling for weighing. We compared the bruising of steers sold at a saleyard with those sent direct to an abattoir in southern Queensland.

The 72 hornless, yearling Hereford steers were allocated at random to three groups for sale by carcass weight direct to an abattoir (CW), open auction on a per head basis (OA) or on a kg liveweight basis (LW) at a saleyard. They were transported 530 km to Brisbane. On arrival, the CW group went direct to the abattoir, rested for 8 h and were slaughtered. At the saleyard, the OA and LW groups were penned for sale next day. The LW steers were redrafted after sale and then weighed. These groups were slaughtered at the same abattoir on the day after the sale. All cattle were subjected to normal commercial handling and no attempt was made to minimize bruising. We used the Australian Carcass Bruise Scoring System (Anderson and Horder 1979) to assess bruising. Carcass weights were recorded. Bruise scores were subjected to analysis of variance.

Mean bruise score did not differ significantly ($P < 0.05$) between treatments, with the CW, OA and LW groups averaging 2.8, 3.9 and 4.3 ± 0.61 SE points. Table 1 gives the distribution of bruising. Mean carcass weight was 233.5 ± 4.0 kg.

TABLE 1 Effect of method of sale on distribution of bruising on the carcass

Method of sale	Proportion of bruising at each carcass site (%)				
	Butt and pin	Rump, loin and hip	Ribs	Forequarter	Back
CW	4	15		34	40
OA	6	22	10	43	19
LW	9	22	12	42	15

Although mean bruise score did not vary significantly between groups, the trend reflected the degree of handling necessary to sell cattle by the three methods. While the light level of bruising was encouraging for cattle sold at a saleyard, this may have resulted from stockmen taking additional care or the quiet temperament of our animals. Despite the smallness of our sample, our results agree with that of an observation in South Australia (Hattiwell pers. comm.) and a survey of 35,000 cattle in southern Queensland (Wythes pers. comm.). The extra handling of cattle through gateways at saleyards may explain the greater proportion of forequarter, rump, loin and hip bruising for the OA and LW groups. We are unable to explain the higher proportion of back bruising for the CW group.

In conclusion, method of sale did not significantly affect mean bruise score, although it had some influence on the distribution of bruising in our study.

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