

## BRUISING AND METHOD OF MARKETING CATTLE

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McCausland and Millar (1982) have shown that although most bruising occurs at the abattoir, considerable variation occurs between similar lines of cattle. This suggests that pre-slaughter management can effect the susceptibility of cattle to bruise at the abattoir. This experiment examined the susceptibility of cattle to bruise after they had been consigned to the abattoir either directly or through a liveweight selling centre.

Seventy two, 6 to 7 year old Hereford x Friesian cows ( $486 \pm 3.5$  kg and gaining weight at 0.8 kg/day) at a property 287 km from Melbourne were divided into three treatment groups of similar live weight. The treatments imposed were direct consignment (D), yarded on the property for 24 h before consignment (Y) and consignment through a municipal liveweight selling centre (S). Groups Y and S were withdrawn from pasture at the same time while group D was yarded 1 h prior to consignment. On the day of the sale, groups D and Y were loaded onto similar cattle trucks and transported to the saleyards and then with group S in a similar truck in convoy to a Melbourne abattoir. Shortly after arrival at the abattoir the cattle were experimentally bruised with a modified captive bolt pistol fitted with a 40 mm leather covered disc. The cattle were rested in a single pen overnight and slaughtered at approximately 09.00 h the next day. The experimental bruise was trimmed from the hot carcass, actual bruise tissue was dissected from the unbruised tissue and weighed. The level of carcass bruising (excluding the experimental bruise) was assessed using the Australian bruise score system (Anderson and Horder 1979).

TABLE 1 Size of experimental bruise, bruise score and number of bruises per animal consigned either directly (D), after being yarded for 24 h (Y) or through a liveweight selling centre (S)

	D	Y	S	LSD*
Experimental bruise size (g)	104.5	125.9	156.0	50.4
Bruise score	3.9	4.5	6.1	1.8
Number of bruises per animal	2.8	3.0	3.5	0.7

\* LSD, least significant difference ( $P < 0.05$ )

The cattle that were consigned directly to the abattoir had significantly smaller bruises, lower bruise score and fewer bruises ( $P < 0.05$ ) than cattle that had been consigned through a liveweight selling system. Although the yarding of cattle 24 h prior to consignment did not significantly effect the level of bruising, the results suggest that yarding of cattle without access to feed is a component of the saleyard system contributing towards bruising. This study indicates that the method of marketing cattle can significantly affect their susceptibility to bruise.

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