

Preshipment feeding of cattle for the live export market

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Recent expansion in the Australian live cattle export trade has been accompanied by the development of **feedlots** in South East Asia, creating a large and potentially long term market for Australian cattle. The export of live cattle is an expensive operation, with the profitability of each shipment largely depending on the final weight of the cattle when they arrive in their country of destination. There is considerable variability in the average liveweight gains or losses of cattle used in the export trade. Many factors contribute to an animal's ability to gain or at least maintain, weight during the preparation and shipment stages of the live cattle export trade, including the time in transit (both preshipment and during shipping); and the time it takes for the cattle to adjust to, and eat adequate quantities of the introduced feed. Preshipment feeding is a technique that has been widely used in the live sheep export industry (McDonald, 1986) to get animals quickly adjusted to the shipboard diet, to reduce mortalities and improve the profitability of the operation.

The objectives of this study were to determine the most cost effective short term preshipment method of feeding cattle; and to determine whether short term electrolyte supplementation of cattle, also during the preshipment stage, would have an effect on the mean liveweight of cattle following shipment from Darwin to the Philippines.

Bos Indicus cross steers (average weight 274 kg), sourced from the same location and of similar age, were randomly allocated on a stratified weight basis to one of the following diets, and fed for 96 h prior to shipment: Bundy Centro hay only; Bundy Centro hay, plus electrolytes for 24 h; lucerne cubes; lucerne cubes, plus electrolytes for 24 h; or lucerne cubes, plus electrolytes for 96 h. All cattle were fed a maintenance ration in the preshipment phase. All treatment groups were then fed lucerne cubes (16% C.P.) *ad libitum* during the shipping stage (5 days). Mean liveweights, and mean liveweight changes are shown in Table 1.

Preshipment feeding with lucerne cubes, plus electrolytes (96 h) maximised mean liveweight gains. Although feeding hay preshipment for 96 h produced the lowest mean liveweight gains, in combination with no electrolyte supplementation in transit, it was the most effective strategy.

Reference

- McDonald, C.L. (1986). Research into behaviour, nutrition and health of sheep during live export. *Proceedings of Australian Society of Animal Production* **17**, 226-229.

Table 1 Effect of preshipment feeding on liveweight.

Preshipment feed	Mean initial Liveweight (kg)	Mean final weight (kg)	Mean liveweightl Change (kg)
Bundy Centro Hay	275.0 (14.63)	281.0 (15.16)	6.0 ^a (7.42)
Bundy Centro Hay, plus electrolytes (24hrs)	272.6 (15.25)	284.2 (15.85)	11.6 ^b (6.89)
Lucerne cubes	270.7 (12.51)	280.8 (16.29)	10.1 ^{ab} (9.66)
Lucerne cubes, plus electrolytes (24hrs)	276.0 (16.03)	282.4 (17.88)	6.4 ^a (9.56)
Lucerne cubes, plus electrolytes (96hrs)	273.5 (15.00)	285.9 (16.68)	12.4 ^b (7.64)
Average S.E.			1.90
5% LSD			4.45