

TIMING OF WEANING AND PROCESSING: EFFECTS ON LIVELWEIGHT CHANGES OF WEANERCATTLE

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To reduce the number of musters and handling costs, calves in extensive cattle herds in northern Australia are processed (vaccinated, ear-marked, de-horned, branded and males castrated) shortly after they are weaned. As stress has adverse effects on health and growth, and weaning is a stressful time for calves, this experiment asked if calf health, welfare and performance were improved when calves had a period with their mothers post-processing, before they were weaned.

At the first muster (day 0) approximately 50 male and 50 female calves (estimated to be two to six months old) from each of two paddocks were allocated to two treatment groups on the basis of liveweight, with the mean being 124 kg and the range 66 kg to 219 kg. The EP group were processed at allocation and then both groups were returned to their home paddocks with their dams. On days 24 and 44, all cattle were mustered and calves weighed, with weaning on day 44 when calves were, on average, 154 kg with a range of 95 kg to 260 kg. At weaning, the calves were separated from their dams and held in yards as one group for a further 12 days during which time they received hay and a molasses-urea-cotton seed meal mix *ad libitum*, and were handled through the race and by horsemen in the yards and laneways on three occasions. On day 56 the WP group were processed and all weaners were walked to their new paddocks. Males and females were grazed in separate paddocks and had *ad libitum* access to a molasses-urea-cotton seed meal mixture.

Musters and weighing took place at three week intervals until six weeks post-weaning, then monthly twice and two-monthly a further two times (9 musters and 10 weighings in about 9 months). Liveweights and ADGs were subjected to unbalanced analysis of variance.

Pre-weaning (and post-processing of EP calves) ADGs were significantly ($P < 0.05$) lower for EP than WP calves (males, 0.65 v 0.79 kg/day; females 0.63 v 0.69 kg/day for EP and WP respectively). Post-weaning (and post-processing of WP calves) ADGs were no different for EP and WP females, but were significantly ($P < 0.05$) lower for WP males than EP males to day 128 (0.32 v 0.36 kg/day). Thereafter there was no significant difference although WP males tended to exceed EP males (final liveweights 212 v 204 kg respectively, Figure 1).

Mustering cattle specifically for processing calves without weaning appears unwarranted for long-term benefits in liveweight.

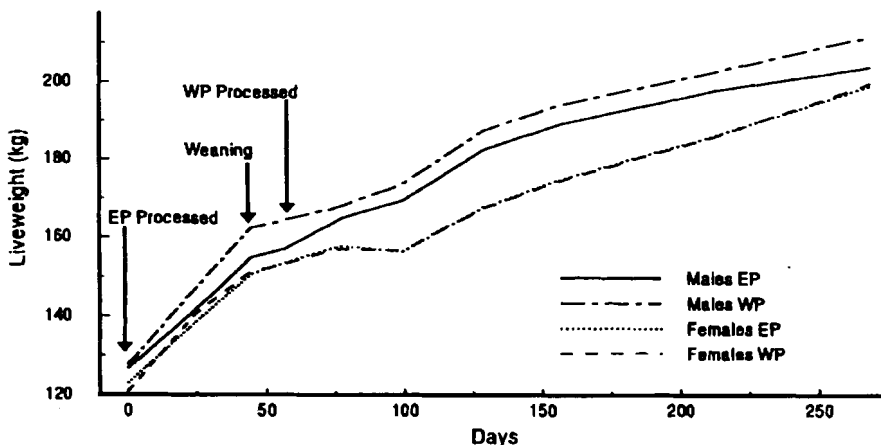


Figure 1. Unfasted liveweights (kg) of calves processed six weeks prior to weaning (EP) or 12 days post-weaning (WP)