Anim. Prod. Aust. 2002 Vol. 24: 319

A COMPARISON OF TWO FINISHING SYSTEMS FOR FRIESIAN BULLS

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Bull beef producers often find they have unfinished bulls at the end of the second growing season. Carrying these bulls over for a third spring creates problems for the producer and the processor as production costs increase and market access is reduced for bulls exceeding 24 months of age. This paper reports on two finishing options over summer and autumn for 450 kg Friesian bulls.

In January 2001, 50 Friesian bulls arrived at Pastoral and Veterinary Institute (PVI) weighing on average 469 kg. They were randomly allocated to one of two treatments: i) a feedlot where bulls were fed a silage based total mixed ration and ii) an autumn-deferred pasture based treatment involving supplementary feeding of hay or silage and grain.

The total mixed ration was introduced over an 18-day introductory period where the proportion of grain was increased to 58% in the final ration. The final ration consisted of 11 MJ ME/kg and 13% CP. The bulls were fed twice daily.

The bulls in the autumn deferment treatment were stocked at 1.5 bulls/ha. They were fed hay and 4 kg of cracked triticale per day until the autumn break when they were confined to a small paddock and fed *ad lib.* silage and 4 kg of cracked triticale until a pasture wedge had grown, they were then set-stocked at 1.5 bulls/ha until slaughter. Bulls on both treatments were finished to market specifications of 3 mm of fat at the P8 site, 250-350 kg HSCW at <24 months of age.

Table 1 shows that the bulls fed in the feedlot reached the market specifications much faster than the autumn deferment bulls. They grew at an average daily gain of 1.71 kg/day and were slaughtered at 599 kg. The autumn deferment bulls grew at 1.27 kg/day up to and during the deferment period and 1.07 kg/day during the pasture phase for an average of 1.15 kg/day. These bulls were slower to lay down fat and consequently reached an average liveweight of 655 kg at slaughter. The bulls met the 3 mm fat specification at the P8 site when scanned and were slaughtered to ensure a chemical lean percent of 95 or more as required for the processing trade.

Table 1. Days to slaughter, start and final liveweights, average daily gain (ADG), hot standard carcase weight (HSCW), P8 fat depth and dressing percentage of feedlot fed and autumn deferred groups of bulls.

Treatment	Days to slaughter	Start weight (kg)	End weight (kg)	ADG (kg/d)	HSCW (kg)	P8 fat depth (mm)	Dressing %
Feedlot	76	469	599	1.71	309	2.0	51.6
Autumn Deferment	162	468	655	1.15	345	1.9	52.6

Feed inputs constitute the greatest costs for feedlot operators and in this trial a combination of high grain prices and poor quality silage (ME 8.6) resulted in higher than expected feed costs, although this was partially offset by better than expected efficiencies in growth. Feed costs per kilogram of liveweight gain were $1.36 for the feedlot treatment and $0.68 for the autumn deferment treatment.

The commercial bull finisher should consider silage quality, grain prices and the scale of a feedlot (yards, sheds, machinery and labour costs can be high on a small scale) before investing in feedlot finishing. The important considerations for autumn deferment are grain prices, machinery and labour costs, pasture availability and quality (a late break will increase grain consumption and may increase the age of slaughter). Both treatments met the market specifications and therefore would be suitable as a finishing system for 450 kg bulls.

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