PRELIMINARY RESULTS ON EFFECT OF DIFFERENT MANAGEMENT SYSTEMS ON BULL BEEF PRODUCTION.

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The availability of calves from the dairy industry and the establishment of a local market, has led to a new bull beef industry in southern Australia (Speck 1998). Friesian bull calves that are usually processed at carcass weights below 35 kg, are instead grown out on pasture based enterprises to meet final liveweight specifications of 500-600 kg, with 3 mm of P8 fat, under 24 months. Meeting these specifications is difficult without the use of supplementation. This paper examines systems that have the potential to produce bulls meeting market specifications in under 24 months.

On 19/02/01 140, 12 week-old bull calves of liveweight 157 kg ± 20.2 kg (mean ± s.d.) were allocated to 5 treatments (n=28 animals per treatment). Two treatments were pasture-based systems, the other 3 systems being either feedlot or a combination of feedlot and pasture. The treatments were feedlot (F), feedlot/set-stocked (F/SS), feedlot/rotationally grazed (F/RG), set-stocked (SS) and rotationally grazed (RG). The F, F/SS and F/RG treatments were placed in a feedlot and fed a grain/silage ration with a target growth rate of 1.25 kg/hd/day. The F/SS and F/RG treatments remained in the feedlot until adequate green feed was available after the autumn break. On the 23/05/01, the F/SS and F/RG treatments at liveweights 266 kg ± 28.8 kg and 269 kg ± 22.3 kg (mean ± s.d.) respectively, were transferred to pasture based grazing systems and reunited with their counterparts in the SS and RG treatments.

The SS and RG treatments were fed supplements until adequate green feed was available after the autumn break. The SS treatment was stocked at 1.9 bulls/ha and supplemented with barley and pasture hay, whilst the RG treatment, rotated when pasture availability decreased below approximately 1200 kg/ha DM, was supplemented with calf pellets and pasture hay.

Figure 1 shows liveweights from trial commencement until the end of January 2002. The feedlot treatment met market specifications and were slaughtered on 26/11/01, at approximately 14 months of age, liveweight 495 kg ± 48.9 kg (mean ± s.d.) and 3 mm P8 fat. At approximately 17 months old on 31/01/02, the F/SS and SS treatments were approaching the minimum target liveweight but did not have sufficient fat cover, while the F/RG and RG treatments required at least 75kg liveweight gain to enter the target liveweight range.

Speck (1998) states that the average growth rates required to meet slaughter specifications of 1 kg liveweight gain/day, from weaning to slaughter, are highly achievable. The SS treatment has achieved gains of 1 kg ± 0.1 kg (mean ± s.d.), whilst the RG treatment has achieved 0.8 kg ± 0.1 kg/day (mean ± s.d.), from weaning until 31/01/02.


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