



agriculture & rural development

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PROVINCE OF KWAZULU-NATAL

FEEDLOT OPTIONS FOR SMALL SCALE FARMERS

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Introduction

It is generally accepted that cattle fed a feedlot ration in pens perform better than cattle fed the same ration while grazing the veld. This theory is based mainly on the fact that cattle grazing the veld use more energy than do those in feeding pens. On the other hand there could be an economic advantage to feeding cattle on the veld. Cattle grazing veld have access to cheaper roughage. Also, less capital intensive facilities are needed if animals are fed on the veld. In an attempt to quantify the difference in performance of beef cattle fed in a conventional feedlot and those fed on the veld three trials were conducted over three years.

The Trial

Sussex weaners were used in two trials and Sussex-cross long yearlings were used in the third experiment. For all trials and seasons the animals were divided into two groups for the 'veldlotting' and conventional feedlotting treatments. The animals were treated prophylactically against sickness and a growth stimulant was administered in all cases.





Veld feedlot animals at the Dundee Research Station

The finisher feed ration used was a whole maize based ration (80% whole maize and 20% of a commercial feedlot HPC). All the animals had free access to the concentrate fed. The feedlot cattle had free access to hay, while the 'veldlot' animals had free access to spring veld in the camps in which they were fed the concentrate.

Results

Animal performance, animal production and financial results are given in Table 1.

There were no significant differences in animal production between the feedlot and 'veldlot' systems of fattening steers. Possible explanations for the better than expected performance of the 'veldlot' animals could be related to increased roughage intake from the veld, increased quality of the veld (compared to the hay fed in the feedlot) or a combination of these two factors. Although not significantly different, there was a tendency for a better concentrate conversion in the 'veldlot' cattle, i.e. when compared to the feedlot animals. This apparent improvement in concentrate conversion together with the cheaper roughage source resulted in a considerable economic advantage to 'veldlotted' animals.

Conclusions

From a financial gain point of view it is clear that, compared to conventional feedlotting, there are major economic advantages to feeding steers a fattening ration (80% whole maize and 20% commercial HPC) on the veld. When the capital cost of a conventional feedlot is brought into the equation the financial benefits of 'veldlotting' are even better.

The practical application of 'veldlotting' would be more suited to a farmer fattening his own steers and to small scale farmers, rather than to big commercial feedlotters. It must, however, be pointed out that the effect of using camps larger than 30 ha is, at this stage, unknown. Nor are there data to indicate the effects of limited veld availability on the performance of animals in a 'veldlotting' system.



Veld feedlot animals at the Dundee Research Station

Table 1. Mass change and financial results of steers in feedlots and 'veldlots'.

Variable	Experiment 1		Experiment 2		Experiment 3	
	'Veldlot'	Feedlot	'Veldlot'	Feedlot	'Veldlot'	Feedlot
Begin mass (kg)	186.5	181.8	157.0	156.5	277.9	274.0
End mass (kg)	344.8	345.0	298.1	290.4	426.5	423.9
Days fed	111	111	97	97	105	105
ADG (kg / day)	1.43	1.47	1.45	1.38	1.42	1.43
Slaughter %	57.5	58.3	55.0	55.9	56.5	56.6
Value carcass gain (R / steer)	973.05	1020.01	792.79	780.35	923.02	930.35
Total feed cost (R / steer)	608.05	649.52	447.83	506.57	662.14	719.34
Additional dip cost (R / steer)	3.20	-	3.20	-	3.20	-
Margin over feed and dip (R / steer)	361.75	370.49	341.76	273.78	257.68	211.01