

Animal Science Research Centre - Beef Unit Trial Results – 2000 (a)

Evaluation of progeny from Top 10% and Bottom 25% Beef Value Limousin bulls

Object:

To evaluate the performance Limousin x Holstein-Friesian bull and heifer calves sired by bulls with either a high (Top 10% of breed) or below average (Bottom 25%) Beef Value with market purchased calves (heifers only).

Stock:

The following Limousin bulls were chosen from the Genus bull stud to serve Holstein-Friesian cows in the Harper Adams University dairy herd:

Ronick Hawk - Beef Value of LM29*
 Staveley Hurricane - Beef Value of LM7*

* Date BLUP'd January 1999.

The calves were born from January to March 2000 and reared through to slaughter on a silage beef system with 32 calves per sire. Limousin x Holstein-Friesian heifers of 'unknown breeding' were purchased as reared calves and reared alongside the heifers sired by Ronick Hawk and Staveley Hurricane.

Results:

Sire	BULLS		HEIFERS		
	Top 10%	Bottom 25%	Top 10%	Bottom 25%	Market Calves
Gestation (days)	285.7	285.2	284	284.3	N/A
Calving ease ¹	1.29	1.93	1.11	1.29	N/A
Birth wt (kg)	48.8	48.6	43.7	43.8	N/A
Slaughter wt (kg)	632	609	505	482	478
Days to slaughter	487	482	496	481	473
DLWG (kg)	1.20	1.17	0.93	0.91	0.92
Carcase wt (kg)	358.8	341.6	269.7	254.8	253.8
Killing out %	56.7	56.1	53.4	54.4	53.1
Carcase grade	R3	R3	R4L	R4L	R4L

¹ Calving ease scale: 1 = unassisted, 5 = caesarian

Discussion & Conclusions:

- The calves sired by the bull with the Top 10% Beef Value recorded the heaviest

slaughter and carcass weight and highest DLWGs. The difference in carcass weight was statistically significant. The Top 10% Beef Value sired calves were slaughtered 5-15 days later.

- The performance of the market purchased calves was similar to the calves sired by the bull with the Bottom 25% Beef Value.
- The increase in carcass weight for the **bull** calves sired by the Top 10% bull of 17.2kg was worth over £28 per calf with a carcass price of £1.67/kg in January 2001. With today's finished beef price (August 2013) of £3.70/kg for R grade bulls this is worth £64 per calf.
- The increase in carcass weight for the **heifer** calves sired by the Top 10% bull of 14.9kg was worth nearly £26 per calf with a carcass price of £1.72/kg in January 2001. With today's beef price (August 2013) of £3.90/kg for R grade heifers this is worth £58 per calf.
- This study provides further evidence that using high index bulls gives a significant financial return.

Reference:

Marsh, S.P. and Pullar, D. 2002 Production and carcass traits of progeny sired by Limousin bulls with high and below average beef values. *Proceedings of the British Society of Animal Science*. Paper 193.

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