



Stabiliser Project

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Net feed efficiency: bulls vs. steers

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Work at the Net Feed Efficiency (NFE) unit is progressing well to identify the most feed efficient future generations of Stabiliser sires. The unit, established in Yorkshire by the Beef Improvement Group, has evaluated both young breeding bulls and finishing steers to date.

As well as identifying feed-efficient Stabiliser sires, the unit has also highlighted the large difference in feed efficiency that exists when bulls are offered a finishing quality diet compared with steers being offered the same diet.

During 2012 two groups, one group of young bulls aged 10-12 months and the other consisting of young steers aged approximately 15-17 months, were fed the same finishing diet. Both groups were offered 50:50 forage: concentrate ad lib over an eight week growth and feed intake study.

The results show that while both bulls and steers ate exactly the same amount at 12.8kg dry matter (DM) per day, the liveweight gain for bulls was 1.84kg/day while steers grew at 1.47kg/day, conferring greater feed use efficiency on bulls compared with steers.

Performance of steers compared to bulls on the same finishing diet

	Bulls	Steers
Average liveweight (kg)	578	591
Intake (DM kg/day)	12.80	12.81
Live weight gain (kg/d)	1.84	1.47
Feed conversion ratio (kgDMI/kg LWG)	7.1	8.8
Feed cost (£/kg LWG)	£1.08	£1.35
<i>assuming £155/tonne DM</i>		

On a feed cost basis it was also clear that each kg of liveweight gain cost 20 per cent less to produce in finishing bulls compared to steers.

It is well known that steers sell for a higher price per kg carcass weight when marketed compared with bulls. However, it would take a hefty price premium for steers to counteract a 20 per cent lower feed cost per kg liveweight gain over the animal's lifetime if finishing steers were to compete with the economic efficiency of finishing bulls.

In addition, it has been calculated that the total greenhouse gas (GHG) emissions emitted over the end of the finishing period (the final 150kg of animal liveweight - 500-650kg) is 24 per cent higher from steers, due to the fact that they take 102 days to reach this point and bulls take only 82 days.

These results focus on the need to consider total feed costs (and its associated GHG emissions) as well as sale price per kg to produce a finished carcass when comparing the overall merits of finishing bulls versus steers on both an economic and environmental basis.

EBLEX to carry out landmark research project on beef feed efficiency

A new Defra-funded project led by EBLEX and SRUC aims to develop expertise and facilities to measure and select for feed intake parameters in beef cattle on commercial farms. The results will be used to develop Estimated Breeding Values (EBVs) for traits relating to feed efficiency and produce a set of possible business models for the continued recording of feed efficiency parameters across a range of cattle breeds.