

## Beef Feed Efficiency Programme

By this autumn, nearly 1,200 animals will have been recorded through the Beef Feed Efficiency Programme and the project will be two thirds of the way through its recording phase. The project has measured or has calves coming forward from 230 different sires so far. An additional funding partnership has meant a unit in Scotland has been set up and has already hosted its first batch of 136 animals. In addition to this and Andy Foot's unit in Dorset, two new host units in England will join the project in October 2017. A breakdown of batches completed to date is shown in Table 1. Autumn batches at all host units are being planned from mid-October onwards, which will attract early spring-born suckled calves.



Table 1: Batches of cattle that have gone through project recording systems

	Dorset	Yorkshire	SRUC	Scotland	Date Completed	Total
Pilot Phase			504		24/03/2017	504
Commercial — Batch 1	46	78			22/12/2016	124
Commercial — Batch 2	109	117			28/03/2017	226
Commercial — Batch 3	98				12/07/2017	98
Commercial — Batch 4	93				31/10/2017	93
Commercial Scotland — Batch 1				136	13/10/2017	136
<b>Total</b>						<b>1181</b>

### Business planning group

As part of the project, a group of beef supply chain stakeholders has been formed to explore and report on potential business models to deliver a self-sustaining national programme of breeding for feed efficiency in beef cattle following the completion of the project. The group is investigating the possibility of working with existing supply chains to submit suitable cattle to the units for collection of feed efficiency data. Further work involves advising on the development of national standards for feed intake recording in beef cattle and overseeing the knowledge exchange activity.

### Genetic parameter and breeding value estimation

The Scientific Advisory Group met in January to begin the discussion on trait definition and integration into breeding indices. This guidance will allow analysis to proceed with confidence on genetic parameter estimation. The group will meet again to conclude its discussion on the breeding goal.

## Interim results

So far, results have shown a range of feed efficiency between different sire groups. Summary results for a batch of cattle are shown below. RFI or net feed efficiency (NFE) as it is also known, is a measure of the level of the animal's dry matter intake in relation to its predicted intake, taking account of its live weight, growth rate and carcass composition. It identifies cattle that eat less than predicted without any effect on rate of liveweight gain.

To date, actual intake of the more feed efficient cattle (low RFI) tends to be around 12% lower than the less efficient cattle (High RFI), yet growth rates are similar. Across 100 growing cattle gaining 200kg of liveweight, the resultant feed cost savings would amount to over £2,600.

Table 2: Residual feed intake between sire groups

	Residual feed intake		
	Low	Med	High
Average liveweight (kg)	327	356	342
Average growth rate (kg/day)	1.57	1.63	1.61
Residual feed intake (kg DM/day)	-0.67	-0.03	0.57
Actual DM intake (kg/day)	7.53	8.65	9.08

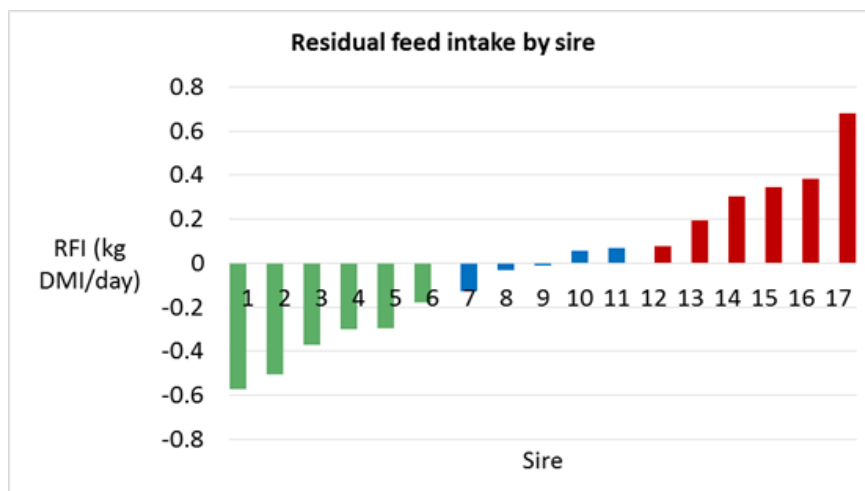


Figure 1: Graph showing residual feed intake by sire

The project is looking for Limousin and Aberdeen Angus-sired cattle from beef or dairy dams to go through the commercial recording units this autumn.

Cattle must be:

- Male
- In groups of four to 16 from the same sire
- Aged between two weeks and eight months old

Market prices will be paid for selected cattle, alternatively, cattle can be provided on a B&B arrangement.

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