Better Returns Programme

Focus Farms Bulletin Extra

Autumn 2014

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Upper Teesdale Business Group

Increasing productivity is a priority for nine upland farmers from Teesdale, who have come together to examine the performance of their sheep and cattle enterprises under the Focus Farms initiative.

Working with David Hall of EBLEX and Debby Brown, a nutrition expert, the group has looked specifically at ways to reduce lamb losses and improve grassland management, so they can increase the amount of meat produced from grass.

The farmers have compared their flock records to identify when lambs are lost during the season and discussed how these losses can be reduced.

Appropriate feeding

Improving ewe nutrition has also been a key area under investigation. Ensuring ewes have adequate energy in the run up to lambing is vital to ensure viable lambs are born and the mother has sufficient milk to feed them. Forage analysis has been carried out and rations developed to suit each farms' circumstances.

Improving grassland productivity started with soil samples being taken on each of the farms. This is helping build up a picture of the nutrient status for the individual farms and for the geographic area. Low pH levels are a recurring theme across most of the farms and discussions are now going on to see how this can be best addressed.

Steve Dunkley

David Hall

Focus Farms investigate production challenges for beef and sheep producers

By Steve Dunkley and David Hall, EBLEX Regional Managers

Over the past four years EBLEX has run more than 40 Focus Farms initiatives across England. This has given hundreds of farmers the chance to follow other commercial producers as they investigate and address production issues on their farms.

The Focus Farm approach asks the host farmer to identify areas of the business where they feel they can improve. A series of management changes to resolve the challenges are then developed and the impact of the changes are monitored along the way. During the process the host farmers work with EBLEX experts and industry specialists in animal health, nutrition, grassland, genetics and business management. They are encouraged to analyse management data and use this information to aid their decision-making.

The progress made and the results of the investigation are disseminated at a series of on-farm events throughout the year. This gives the opportunity for other farmers to see first-hand what is being done and what the impact has been. They also share their thoughts and experiences.

In this Bulletin Extra we offer a flavour of the work that has been carried out on a few of the farms, with thoughts from some of the farmers who have been involved.

What is a Focus Farm?

It is a typical commercial beef or sheep farm.
The host farmer is asked to:

- Challenge their business and identify priorities
- Gather baseline performance data to establish the current level of performance

After discussions the farmer:

- Changes management practices to address their priorities
- Undertakes any sampling required (soil/bloods/egg counts/forage, etc) for laboratory analysis
- Monitors and assesses the impact of the changes made

EBLEX supports the process by:

- Interpreting and comparing performance data to industry standards to determine priority areas
- Identifying the expertise required to support the farmer
- Facilitating knowledge exchange between farmers
- Demonstrating best practice

If you are interested in knowing more about Focus Farms and how they work, email **steve.dunkley@eblex.ahdb.org.uk** or call **0870 241 8829** for more details.

Sheep Focus Farms

There are currently 19 Sheep Focus Farms with the aim of addressing health and welfare issues such as lameness, infertility, parasites and clostridial diseases.

EBLEX is working in partnership with ADAS, Westpoint Veterinary Group, Duchy College and SRUC to provide national coverage and deliver meetings on the farms, which are spread right across England, with flocks ranging in size from 350 to 2,000 ewes. In total over 15,600 ewes are represented.

The project is supported under the Rural Development Programme for England (RDPE) Skills and Knowledge Transfer Framework, which is jointly funded by Defra and the European Union.

Department for Environment Food & Rural Affairs

The European Agricultural Fund for Rural Development Europe investing in rural areas

For more information: **www.eblex.org.uk/returns/cattle-sheep-health-welfare-project/**

Figure 1: Location of Sheep Focus Farms

Preparing ewes for tupping

Kent sheep farmer Paul Hope is keen to improve the output of his Mule and Mule Suffolk cross ewes after disappointing scanning in 2013.

Previous scanning results have been in excess of 170%, but in 2014 fell to 147%. As part of the Focus Farms initiative, Paul is investigating the possible factors that could have contributed to this.

To start, and with help from EBLEX assistant regional manager Nerys Wright, Paul body condition scored all the ewes at weaning and separated them into two groups. He gave the thinner ewes the best grazing and put the fittest ewes onto poorer quality leys.

They have been revisited and reassessed every four weeks to ensure they are either gaining or losing the condition required to reach target BCS 3.5 at tupping.

A sample of ewes have been blood sampled, a mixture of thin and fit ewes and those rearing single and multiple lambs – to ensure trace element deficiencies are not contributing to the reduced flock prolificacy.

The tups have also had a physical examination to ensure their body tone, teeth, toes and testicles are in the best possible condition for mating.

Paul says:

"Being a Focus Farmer is encouraging me to carry out more of the important routine tasks on a regular basis. I feel this should definitely help boost scanning percentages next year."

Improving lamb finishing

Hunt House is an upland farm on the North York Moors run by Mark Graham and Ian Thompson. The holding runs 1,000 Swaledale ewes, rearing gimmer lambs to be sold for breeding. The wethers are grown on after weaning, before being housed in November for finishing on concentrates so they are ready for the January to May lamb market.

Mark was concerned about the deductions applied to his lambs in 2012/13 for being over-fat. He wanted to monitor their performance more closely as he finished them in 2013/14 and improve overall returns. Two investigations were carried out with the aims of:

1. Improving lamb selection by weighing and handling more often. The aim was to increase the number of lambs achieving target grades, whilst reducing the level of carcase deductions
2. Evaluating the current finishing system, by monitoring feed use compared to lamb growth rates (calculated from the results of regular weighing)

Figure 2: Comparison of classification results 2012/13 and 2013/14

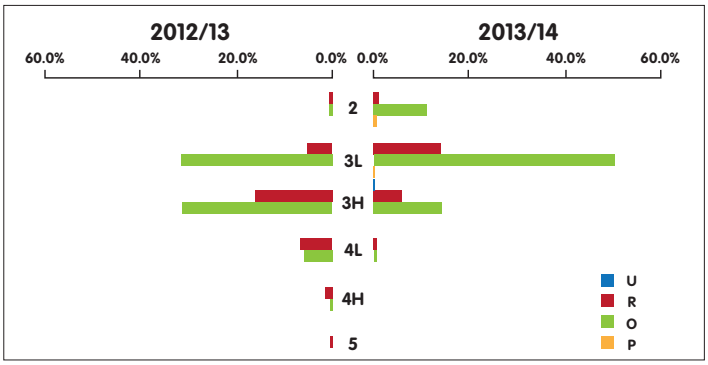


Figure 2 shows how regular weighing, handling and drawing lambs produced leaner, more marketable lambs.

The number of lambs finishing within target fat class (2/3L) increased from 37.6% in 2012/13 to 78.8% in 2013/14. This resulted in abattoir deductions reducing from £2.93 in 2012/13 to £1.81 per lamb in 2013/14, an additional £1.12 per lamb.

The cost of finishing

The second part of the investigation involved weighing and batching all the lambs as either short, medium or long keep. Table 1 summarises the performance data at the end of the investigation. These figures could be used as a benchmark for other farmers running a similar system.

The results highlighted that the long keep lambs on Mark's system are the highest risk option, requiring a lot of time and inputs, while being dependant on a strong lamb price in April and May. Figure 3 shows this by highlighting the margin-over-concentrate achieved per batch sold.

New options

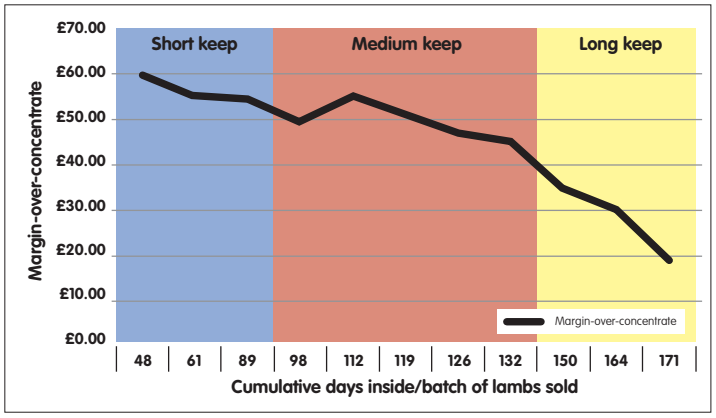
Having identified the issue with long keep lambs, Mark is keen to develop other options for this type of animal. These include:

1. Selling them as stores in autumn
2. Increasing average lamb weights by November by:
   a. Using high genetic-merit sires – with good Estimated Breeding Values (EBVs) for growth traits
   b. Improving grazing management eg, re-seeding, rotational grazing – to increase grass quality and yield
3. Reducing feed costs but maintaining the ration quality by:
   a. Producing a home-mixed ration with bought-in straights
   b. Including quality silage in the diet (above 10.5 ME) costing around 10-13p/kg DM, compared to 25p/kg DM for concentrates
   c. Growing and feeding brassicas. Growth rates above 100g per day can be achieved at a cost of £65/t DM utilised, compared to more than £250/t DM utilised for concentrates

Table 1: Results of the investigation into different finishing systems at Hunt House Farm

Performance measures	Short keep	Medium keep	Long keep
Number lambs at start of investigation	107	430	105
Liveweight range at start (kg)	37+	30-36	18-29
Average growth rate g/day (birth to slaughter)	133	114	97
Average days inside to finish	67	116	159
Feed Conversion Ratio (X:1)	9	11	14
Average feed intake (fresh) kg	79	147	229
Average feed cost (p/day)	26	29	32
Average margin-over-concentrate per lamb	£56.48	£49.63	£28.13

Figure 3: The effect on margin-over-concentrate of keeping lambs inside for an increasing period of time



Mark says:

"When the lambs are ready they need to go. The abattoir wants lambs that hit their specification, so forget the extra 2kg of liveweight they might gain if you keep them longer, because there is a great risk of them becoming over-fat and attracting a price penalty.

"Also monitor what it actually costs to feed them. You will soon find out which the most profitable lambs are."

Further information in Sheep BRP Manual 1: **Marketing prime lamb for Better Returns** and Manual 5: **Growing and finishing lambs for Better Returns**.

Reducing lameness

Grimston Manor is a lowland farm in North Yorkshire run by Tim Kelsey. He runs 600 Mule, Suffolk cross and Charollais cross ewes, with all lambs finished and sold liveweight.

Tim had an increasing lameness problem and wanted to investigate the causes and put a plan in place to address it.

Previously, Tim treated lame ewes with an injectable antibiotic, antibiotic spray and by trimming when he thought it was required. As part of his normal management routine in May, he would also turn over every ewe in a crate to inspect and trim her feet. The vet was never called in to diagnose the types of lesions causing the lameness.

Looking for the causes

One field of 78 ewes and lambs was used as the Focus Farm study flock. On 16 May each of the ewes was turned over, assessed, diagnosed and treated. They were re-examined at three to four week intervals to track their progress. Lame ewes had their ear tag number recorded to aid monitoring. In addition photos were taken of the feet from the most affected ewes as they healed.

Table 2: The type of lesions found and number of ewes treated within the study flock on 16 May

Total number of sheep examined	78
Lame at mobility score 2 (a nodding head but weight-bearing) and above	27
Number with footrot lesions	44
Number with CODD lesions	7
Number given injectable antibiotics	43

Example case

Ewe 151 had footrot in both hind feet at the start of the study period (Table 3). She was not weight-bearing on one of the feet when standing, giving her a mobility score of 3.

She was given an antibiotic injection and her feet were sprayed with antibiotic spray, but not trimmed. She was sound within four weeks and by 1 August the overgrown hoof had worn away naturally without being trimmed.

Photos taken at each investigation date show ewe 151 recovering from footrot

16 May
Footrot diagnosed

4 July
Hoof healed but not trimmed

6 June
Healing

1 August
Overgrown hoof worn down naturally

Table 3: The lameness record for ewe tag number 151 during the study period

Ewe tag number	Date	Feet assessed	Footrot	CODD	Trim	Injected	Mobility score
151	16 May	LH, RH	Y	N	N	Y	3
	6 June	LH, RH	Y healing	N	N	N	1
	4 July	LH, RH	N	N	N	N	0
	1 August	LH, RH	N	N	N	N	0

Tim says:

"I had always trimmed the ewes' feet as part of my yearly routine, as well as treating them when they were obviously lame.

"But this investigation has shown me that it is important to treat all cases as soon as possible, to get on top and stay on top of lameness and that routine trimming, although something we have been taught to do historically, is actually not the right thing to do."

Further information in Sheep BRP Manual 7: **Reducing lameness for Better Returns**.

Increasing suckler herd efficiency

Heathcote Grange is an upland farm in Derbyshire run by Neil Flower. The farm runs 70 pedigree and crossbred suckler cows mated with an Aberdeen Angus bull, selling most of the finished stock deadweight on supermarket Angus schemes.

Neil had seen increasing problems with heifer infertility, over-fat cows and a long calving interval. These factors were creating inefficiencies such as poor weaning weights and low numbers of calves reared.

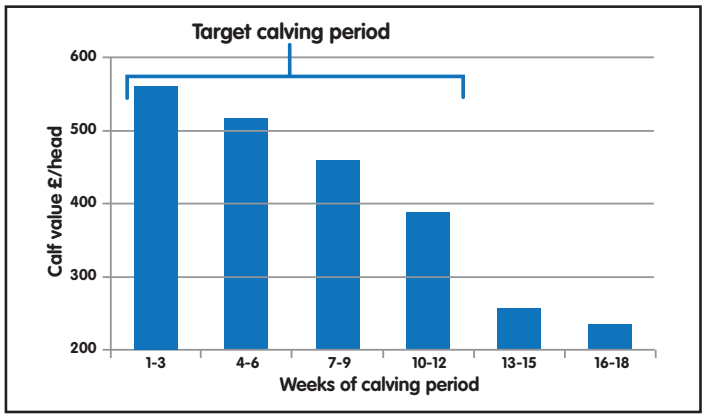
To support Neil, herd performance data was analysed and a plan devised to monitor cow and heifer body condition and cow/calf weights at weaning.

Compact calving pays

The calving data showed a long, drawn-out calving period over 18 weeks.

Analysis of calf weights showed calves born in the first 12 weeks were worth on average, £275 per head more (assuming a calf value of £2/kg) at housing, than those born between weeks 13 and 18. This highlights the benefits of a compact calving period.

Figure 4: Focus Farm data: Average calf value at housing vs calving period (based on £2/kg)



As a result of the analysis, Neil is taking action to reduce the calving period by removing the bull after 12 weeks.

Calving at two years old

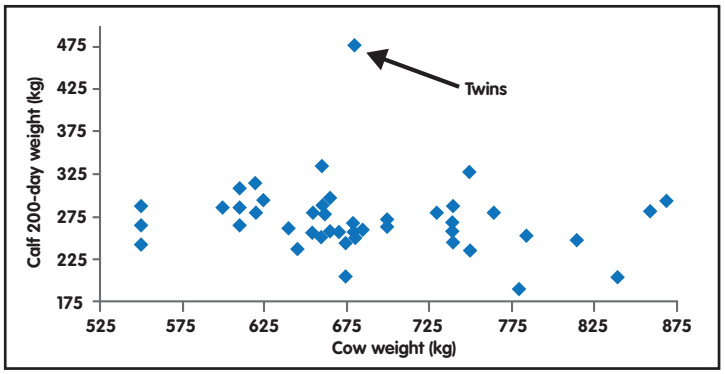
To help address the issue of poor heifer fertility, it was decided to calve replacements at two years of age, rather than leave them until they were two-and-a-half to three years of age, as they were tending to become over-fat. The existing replacement heifers and the new batch of heifers due to calve at two years, has increased the number of replacements available, allowing for a harder cull of less efficient cows.

The heifers were weighed throughout the winter to monitor growth and a high protein ration was fed to achieve frame growth. This has resulted in nine heifers reaching the target bulling weight of 65% (400-420kg) of their expected mature weight by 15 months of age in 2014. These heifers were then served by an easy-calving bull in July 2014.

Heaviest calves from heaviest cows?

The target for an efficient cow is for her to rear at least 50% of her liveweight as a weaned calf (corrected to 200-day weaning weight). By weighing all the cows and calves at weaning, it was possible to assess their efficiency and explore whether the heaviest cows produced the heaviest calves. Larger cows cost more to feed than medium framed cows, but only deliver the same amount of output, ie one calf a year.

Figure 5: Focus Farm data: Comparison of cow weight and weaned calf weight (adjusted to 200-days)



This investigation showed that the heaviest cows did not necessarily produce the heaviest calves and that there is much variation within a herd (see Figure 5). Assessing the cows' efficiency in terms of kg of calf produced per kg of cow, showed a variation from 32% for the least efficient cow, to 52% for the most efficient.

This confirmed to Neil that the cows he had selected to cull were in fact some of the least efficient cows in the herd.

Neil says:

"This work has really helped us make our herd more efficient. It is the attention to detail that has proved important, from condition scoring to weighing the herd more often. Now we can now make much more informed decisions about what we do."

Further information in Beef BRP Manual 8: **Optimising suckler herd fertility for Better Returns**.

Focus on soil fertility

In 2013 Richard Clegg, who farms at Seathwaite and Staveley in Cumbria, agreed to take part in the Focus Farms initiative to look at opportunities to increase productivity. In particular he wanted to produce more meat from grass.

He started a grassland improvement programme at Staveley, with the application of 5t/ha (2t/acre) of lime and a little more nitrogen fertiliser than he usually applied in the spring.

This gave noticeably higher grass yields, so Richard decided to do the same thing on fields at his farm at Seathwaite. Eighty tonnes of calcium lime was applied to 16ha (40 acres) of meadow and pasture. The fields also had applications of FYM in either the autumn or spring of 2014, depending on soil conditions.

Cheaper fertiliser

After having the soil analysed, Richard changed to a 26:10:0 fertiliser rather than a 25:5:5. This new product supplied all the phosphate (P) needed for the year and there was no requirement for potash (K).

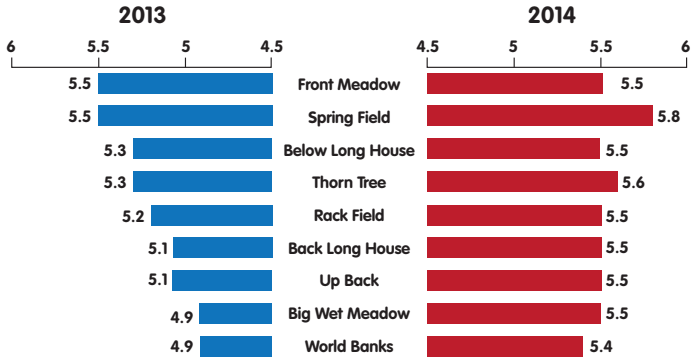
It was applied at a rate of 187kg/ha (1.5cwt/acre) in the spring on the pastures. For mowing meadows a rate of 247kg/ha (2cwt/acre) was applied and the FYM targeted to these fields. There has been a saving on fertiliser of around £11/t.

Following the new management practice the fields have recovered well from the winter and earlier grazing by stock, even allowing for the milder spring. The mowing meadows produced 30 more bales of silage this year than last year.

This summer, nine of the fields were soil sampled again to assess the impact of the liming.

Figure 6 shows the impact applying lime has had on soil pH. All fields will require a second application to move them closer to target pH.

Figure 6: The impact of liming on soil pH



Richard says:

"I am positive that applying the lime and improving the pH has allowed the soil to make better use of the nutrients in the FYM. The grass has yielded better and recovered quicker after spring-grazing where we applied the lime."

For more information see Generic BRP Manual 3: **Improving soils for Better Returns.**

For more information contact:

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