

## MORAY MONITOR FARM Lamb Finishing Theme Report

### The Challenge

Corskie aims to finish all lambs on a grass-based diet with additional concentrates fed as required. The majority are sold straight to the local abattoir. The main challenge associated with selecting finished lambs is the time and labour in regularly drawing prime lambs. The current system involves several members of staff (approx. 4) being tied up for a whole day to gather, feed up the race, weigh and handle lambs. Due to the time taken the lambs are not sorted through on a regular enough basis, resulting in lambs being overweight or too fat, or in contradiction, lambs which are almost ready to go being selected to prevent overweight lambs being presented at slaughter – the latter resulting in lost potential for additional kilos of red meat sales from the farm.

The Morayshire Monitor Farm management group decided to identify the sheep handling system that suited the sheep enterprise at Corskie best, to reduce labour costs and improve productivity and efficiency of finished lambs on the farm.

In addition, as many of the Morayshire Monitor Farm management group also finish lambs, either homebred or purchased as store; they were keen to investigate if there is any cost benefit of purchasing concentrate feeds for finishing lambs in Morayshire.

### What We Did

At community group meeting 5, a range of sheep handling systems were demonstrated (Figure 1 & 2) including:

- Rappa handling system, weight crate & DrenchMaster race
- ScotPen auto-sheep immobiliser & auto-turner crate
- Rancher manual sheep immobiliser/weigh platform which can slot into pre-existing sheep races
- ScotSqueeze auto-handling/weighing system.



Figure 1. Demonstration of the ScotPen auto-turner crate (left) and ScotSqueeze auto-clamp (right) systems.



Figure 2. Demonstration of the ScotPen Rancher (left), Rappa (middle) and ScotPen immobiliser (right) sheep handling systems.

Table of the cost comparisons of the different sheep handling systems demonstrated.

	ScotSqueeze	Rappa	Shearwell TePari HD3	ScotPen	ScotPen Rancher
Crate		£2319		£10000 (incl. ramps for turnover crate) £6000 (incl. ramps for immobiliser)	£7500 (manual clamp & weigh cell)
Auto drafter	N/A	N/A	£800	N/A	N/A
Weigh head	£750	£400 - 850		£500	
Handling system	£3250	£7275 (incl. race, gates & trailer)	£12070	£7500 (incl. race, gates & trailer)	£7500 (incl. race, gates & trailer)
DrenchMaster	N/A	£1800	N/A	N/A	N/A
EID reader			£400 – 440 (stick) £1525 (handheld)		
Trailer	£1500				
<b>Total Cost (excl. VAT)</b>	<b>£5500</b>	<b>£11794 - £12244</b>	<b>£13270 – £14395</b>	<b>£14000 - £18000</b>	<b>£15000</b>

The community group was then asked to recommend and justify their choice of handling system for use at Corskie. On the day, the Rappa handling system came out as the community group's ideal selection, being

highly functional and of moderate cost. The automatic systems were well received although, their high price tag was deemed hard to justify by most local farmers.

Iain Green decided to proceed with purchase of a Clipex sheep handler (<https://clipex.com.au/clipex-sheep-handler/>), at a cost of £17500. This automatic sheep handling system with 3-way auto-drafting can draft up to 800 sheep per hour, handle up to 400 sheep per hour and crutch up to 120 sheep per hour (numbers may vary with machine or operator usage). The system is run using an air compressor, needing only 80 psi to operate, meaning it can successfully be ran off a tractor in the field. Depending on how fast the sheep travel through the handling system and the task being undertaken the pressure and sensors can be adjusted. Lambs can be separated into different weight categories with the 3-way auto draft function and the EID scanner and weigh head allows monitoring of individual animal performance as the last recorded weight shows up on the screen when the individual EID is recognised.

The ability to monitor individual animal performance has numerous advantages including: the ability to inform breeding decisions and improving animal health and welfare. Ewe lambs with the best daily liveweight gain (DLWG) can be identified and selected as replacements within the flock, to improve productivity and efficiency. Furthermore, information on DLWG, when combined with slaughter weights and grades of finished lambs can also aid breeding stock selection. Additionally, DLWG thresholds can be set to identify individuals that are underperforming and require further investigation. Ill-thrift in lambs can be as a result of: poor nutrition; parasitic gastroenteritis (PGE); trace element deficiency (particularly cobalt and selenium); fascioliasis (liver fluke) or specific infections or management problems such as respiratory infections; lameness; sheep scab; coccidiosis and Border disease. Early identification of these individuals permits swift treatment and reduces further losses in productivity and efficiency. Having accurate liveweight measurements also ensures that the correct dosage of any medication can be administered to animals. This is particularly important for anthelmintic and antimicrobial drugs in order to reduce the likelihood of resistance to these drugs developing.

Since purchasing the handling system, it has been used for drawing fat lambs and cull ewes, weaning lambs, crutching pedigrees, checking tags, assessing feet, sponging ewes, vaccinations and dosing. Being trailed, allows the handling system to be moved to the other farms operated by Corskie, maximising usage while minimising transportation of sheep.

A trial is currently being designed to assess the cost-effectiveness of feeding concentrates to finishing lambs. Approximately 200 individually EID tagged, homebred, Texel cross lambs 4-6 weeks from finishing will be split into two equally sized batches; one receiving a grass only diet, while the other batch received concentrates in addition to grass. The daily live weight gain of the two batches will be recorded at weighing on 3 occasions, 2 weeks apart. This will also allow the identification of individual lambs that are underperforming and those that warrant further investigation for signs of ill-health. Concentrate use and costs are also going to be measured to quantify the contribution concentrates make to daily live weight gains and to determine the cost benefit of this. In addition, the proportion of lambs hitting market spec and labour time and savings will be compared to the traditional system.

## The Results

A video from the product demonstration at Corskie showing embryo recipients getting a health check, feet trimmed, EIDs read, numbered (matching ear tag number), drenched and mineral dosed can be seen at: <https://www.facebook.com/ClipexEurope/videos/642084356195209/>.

Considerable labour savings have been made already since the introduction of the Clipex sheep handling system at Corskie. For instance, one stock person was able to do 15 tups feet in an hour and 980 sheep passed through the handling system in 2 hours allowing ewes and lambs to be separated. Lambs were also split into light and heavy weight groups with the 3-way auto-drafter. Previously, this would have taken a full day and required 3 – 4 stock people.

None of the lambs selected for slaughter according to live weight by the Clipex system have been out of spec and therefore no penalties have been applied. However, the lambs still need to be manually handled to assess fat coverage to avoid potential penalties.

The combination of labour savings, reduced penalties and improved productivity of lambs means that the Clipex sheep handling system will soon pay for itself.

The lamb finishing diet trial is yet to be conducted and results will be conveyed to the community group in due course. However, it is expected that daily live weight gains will be improved in the lambs on additional concentrates compared to those on grass only. This will lead to a reduced time to slaughter, leading to improved productivity and efficiency of the lamb enterprise at Corskie. Having lambs off the grass earlier will result in more grass available for other livestock on the farm over winter, particularly the ewes. Consequently, ewes will be in better condition in advance of lambing and hopefully produce larger litter numbers and weights.

The cost benefit of feeding concentrates to finishing lambs is dependent of the relative feed cost and lamb price at the time, as these can be highly volatile and very unpredictable unless secured under contract.

### What Has Changed at Corskie

Sheep work has become less of a chore for the stock workers and more time has been freed up for other tasks on the farm. Lambs can be weighed much more frequently than before, meaning less lambs are out of spec and have penalties applied for being overweight.

It is hoped that the ability to monitor individual performance over time, will aid future selection of ewe lambs for retention as breeding stock, to ensure the most efficient and productive animals are kept within the Corskie flock.

## FACILITATOR CONTACT DETAILS

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