Cattle and Sheep Enterprise Profitability in Scotland

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Quality Meat Scotland (QMS)

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CONTENTS

EXECUTIVE SUMMARY

- This report on enterprise profitability covers the 2012 calf and lamb crop year, a period of challenging weather conditions that tested the resilience of farmers and livestock alike. For many businesses it resulted in increased feed and veterinary costs and greater wear and tear on infrastructure. For others it resulted in changed sale profiles resulting in the sale of lighter animals. These challenging weather conditions were a major contributor to the results of the 2012 Scottish calf and lamb crop year survey showing a decline in margins over the past year across all enterprise types surveyed except intensive cereal-based finishers of cattle.
- The results continue to demonstrate the difficulty among suckler cattle producers to achieve a positive margin from the market place. Only 22% of the suckler herds surveyed reported a positive net margin from which to pay family labour and reward the risk capital invested in the business, down from 30% last year. Margins were maintained more easily among store cattle finishers where 59% of businesses surveyed achieved a positive net margin, little changed from the 60% which achieved this objective last year. Falling margins among ewe flocks resulted in 19% of hill flocks returning a positive margin, down from 57% last year. Forty seven per cent of upland flocks recorded a positive net margin, down from 100% last year, while among lowground flocks 83% of those surveyed recorded a positive margin, down from 100% last year. Half of the store lamb finishers achieved a positive net margin compared to 92% achieving this objective last year. Nevertheless, even those businesses reporting positive net margins still struggled to deliver a fair return for labour and capital.
- The survey results continue to show significant variation in levels of financial and technical performance within the industry. Indeed across several of the cattle enterprise types, those in the top third reported higher margins than those in the top third in 2011 even although the average margin fell in all cases. In common with previous years there are a number of recurring themes that characterise top performance.
- Top producers continue to be characterised by:
  – High physical, or technical, performance;
  – Strong control over costs; and
  – Maximising returns from the market place.
- Across suckler herds, those in the top third of net margin per animal achieved higher output through higher calf rearing percentages, generally selling heavier calves resulting in higher yield per cow in the herd. They also typically received 4-9 p/kg lwt more for the calves they sold. They also had lower herd maintenance costs.

- Suckler herds in the top third of financial performance were also characterised by strong variable cost control. In all cases those in the top third had lower total variable costs than the average while achieving higher output. Fixed costs were also firmly controlled. In all cases top third producers had lower fixed costs per kg of output even if, on occasion, fixed cost per cow was higher than the average.
- Those in the top third of sheep producers similarly achieved higher outputs through higher stock performance. Typically they reared about 15-20 more lambs per 100 ewes than the average. Although they did not necessarily rear lambs to the heaviest weights, the larger lamb crop typically resulted in top third flocks selling 9 to 13 kg lwt more lamb per ewe. They also typically sold the highest proportion of lambs for immediate slaughter. The net effect being that income per ewe from lamb sales was £20 per ewe more than the average.
- The LFA hill suckler herds surveyed had an average gross margin of £233 per cow. The top third averaged £425 per cow gross margin, an improvement of £192 per cow. The top third achieved a positive net margin of £27 per cow against the average of (-) £135. Of the fifteen producers surveyed, six achieved a positive net margin, an improvement on last year but still emphasising the challenges of farming in an extensive way on severely disadvantaged land.
- The LFA upland suckler herds were split into two categories, one group selling at weaning and a second group selling yearling stores. Those selling at weaning made an average gross margin of £241 per cow, but were outperformed by their counterparts selling yearlings who achieved an average gross margin of £316 per head. Top third producers selling at weaning made £349 gross margin per cow with 10% more liveweight produced per cow than the average while at the same time keeping variable costs 18% lower. Of those selling yearlings, the top third achieved a gross margin of £460 per cow. Again variable costs were strictly controlled and compared to the average were 25% lower while still producing 2.5% more liveweight per cow. Ten per cent of businesses selling calves at weaning achieved a positive net margin. In contrast, among those selling yearlings, 26% of the businesses achieved a positive net margin.
- Non-LFA suckler herds reported an average gross margin of £242 per cow while those in the top third achieved a gross margin of £403. A significant contributor to this improvement was the 14% greater sale weight per cow. Although the top third did manage variable costs to a level 20% below the average they did carry higher fixed costs which reduced their advantage at net margin level. Twenty four per cent of businesses surveyed achieved a positive net margin.

- Rearer finisher businesses surveyed recorded an average gross margin of £397 per cow with the top-third averaging £574. However, the average net margin remained negative at (-) £71, a decline of £46 over the year. Eighteen per cent of the businesses surveyed achieved a positive net margin, half the rate of last year.
- Cereal-based cattle finishers surveyed reported an average gross margin of £199 per beast and a net margin of £107. Those in the top third achieved an £86 improvement in net margin over the average. Indeed eighty percent of businesses in the survey reported a positive net margin - the only group to show an improvement on last year.
- Forage-based finishers have been split into two groups, those selling cattle under 22 months of age and those selling cattle over 22 months of age. Those selling younger cattle achieved an average gross margin of £252 per beast and reported a net margin of £36. Those selling older cattle achieved a gross margin of £140 per head and net margin of (-) £68. Those in the top third of both groups achieved this objective largely through their ability to realise better returns from the market place, having the biggest spread between purchase and sale price and achieving the highest growth rates from their cattle. Sixty per cent of those selling younger cattle achieved a positive net margin compared to 40% of those selling the older cattle.
- LFA hill sheep enterprises in the survey achieved an average gross margin of £26 per ewe. The top third benefited from higher prolificacy and lamb weights resulting in a net output £20 per ewe higher than the average. With variable costs only £1 per ewe higher, this improved productivity transferred almost entirely into a gross margin which was £19 per ewe better. Slightly higher fixed costs among the top third eroded this improvement to £15 at net margin level which left the top third with a positive net margin of £2 per ewe compared to an average net margin of (-) £13 per ewe. Twenty per cent of these businesses achieved a positive margin, a significant decline from the 57% who achieved this objective for their 2011 lamb crop.
- Eighty per cent of upland ewe enterprises surveyed reported a positive net margin, down from 100% last year, with an average of £13 per ewe and those in the top third achieving a net margin of £28 per ewe. Variable costs and fixed costs among the top third were higher than the average. Thus, the major contributor to improved returns was improved physical performance which saw those in the top third produce 15% more lamb per ewe.
- Lowground breeding ewe businesses in the survey also saw a decline in financial performance compared to last year. Eighty per cent of those surveyed achieved a positive margin, a ten percentage point decline on the year.
- Store lamb producers achieved an average gross margin per lamb sold of £1 per lamb and net margins slipped into negative territory at (-) £3.50 on average. Only half of the businesses surveyed achieved a positive net margin.

INTRODUCTION

This report summarises the results of a survey of Scottish beef and sheep enterprise profitability during the 2012 calf and lamb crop year. The survey was commissioned by Quality Meat Scotland (QMS) and carried out by SAC Consulting, part of Scotland's Rural College.

The survey covers 70 breeding ewe enterprises farming 42,000 ewes and 115 suckler cattle enterprises farming 11,150 suckler cows as well as 12 enterprises finishing some 8,750 store lambs and 51 cattle finishing enterprises selling just over 3600 prime cattle. Eight per cent of the suckler herds and eight per cent of the ewe flocks surveyed were farmed to organic standards. The survey provides a snapshot of the industry during 2012. This report compares, for each sector, the costs, revenues and margins achieved by the top third of producers, the bottom third and the sample average.

The concluding sector of the report provides some comparative analysis with the results from 2010 and 2011. However, it must be stressed that the comparisons are not identical samples of businesses.

Within the analysis of the survey, an enterprise's estimated fixed and variable costs can be found as well as their estimated gross and net margins. The gross margin is left after variable costs have been deducted from an enterprise's revenues. Then, once fixed costs have been subtracted from the gross margin, one is left with the enterprise's net margin, which rewards the farmer for his/her labour and capital investment. Fixed costs have been allocated to the livestock enterprises on a farm in direct proportion to their share of the total sales revenue of that business. Within mixed livestock farms, fixed costs have been allocated between cattle and sheep enterprises in relation to their proportion of Grazing Livestock Units. The results are again ranked by gross margin per head of livestock.

The analysis has been extended to include estimates of the time committed to the enterprises by family labour for which no charge has been recorded in the estimate of net margins. The level of income required to provide a five per cent return on an enterprise's working capital has also been estimated in addition to the opportunity cost of the land used.

All area based support payments have been excluded from this year's analysis of the returns derived from livestock enterprises since there is no obligation for livestock production to take place in order to receive area payments. However, the Scottish beef calf premium has been included since it is coupled to the level of production.

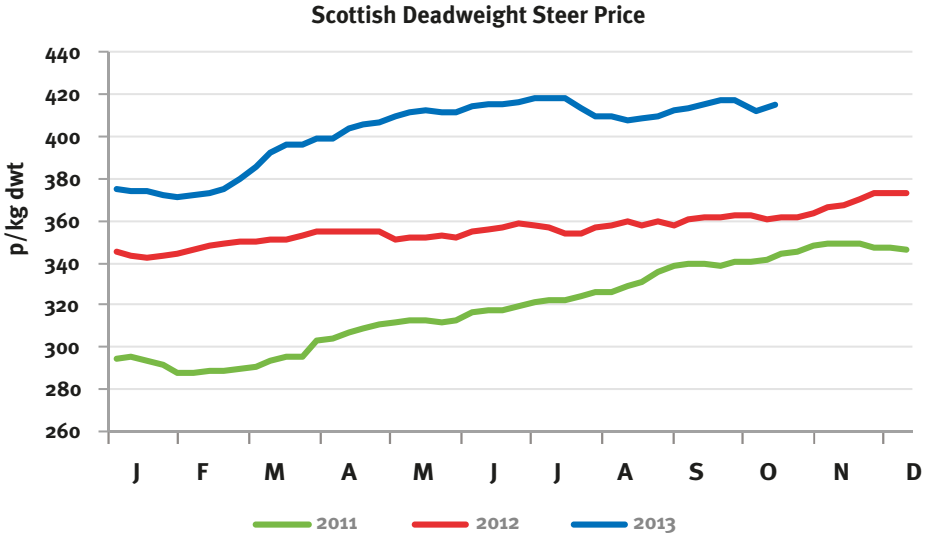
The considerable range of land types and production systems found in Scotland inevitably mean that any survey of businesses cannot cover all options. However, results are presented for a comprehensive range of enterprise types, namely:

- LFA hill herds selling calves at weaning;
- LFA upland herds selling calves at weaning;
- LFA upland herds selling forward stores;
- Non-LFA herds;
- Rearer-finisher herds;
- Cereal based finishing enterprises finishing cattle under 20 months of age;
- Forage based enterprises finishing cattle at under 22 months of age;
- Forage based enterprises finishing cattle at over 22 months of age;
- Non-LFA breeding flocks;
- LFA upland ewe flocks;
- LFA hill flocks using Blackface or Cheviot stock;
- Store lamb finishers.

Both the range of performance and the key contributing factors to these differences in performance between businesses are demonstrated by the results of the survey. The results also provide individual businesses with a benchmark against which to gauge their own performance, thereby allowing them to investigate the strengths and weaknesses of their enterprise compared with those of similar businesses.

Cost Price Changes During 2012

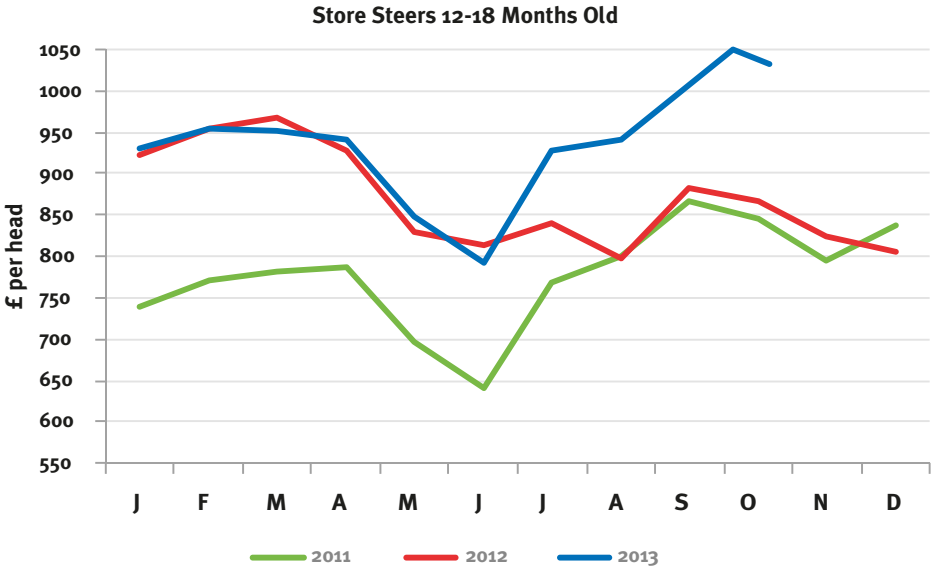
Ex-farm cattle prices began 2012 50p/kg (17%) higher than a year earlier at 345p/kg dwt. Prices eased a touch through January but then picked up steadily through February, March and April. After a slight fall in May they recovered the lost ground in June and early July. As demand slowed seasonally in late July, prices eased once again before rising slowly through August and September. Prices then steadied in October before trending higher through November and into December on strong festival season demand. They reached their annual peak in late December at 373p/kg dwt, closing the year 28p/kg (8%) higher than they had started it.



Prime cattle producer prices averaged well above year earlier levels throughout 2012. However, as prices had risen at a faster pace in 2011 the year-on-year gap narrowed as 2012 progressed. Starting the year at a 17% premium, it briefly widened to 20% in February before declining steadily between mid-March and mid-November where it bottomed out at 4.5%. The premium then increased again, reaching 7.5% at the year-end.

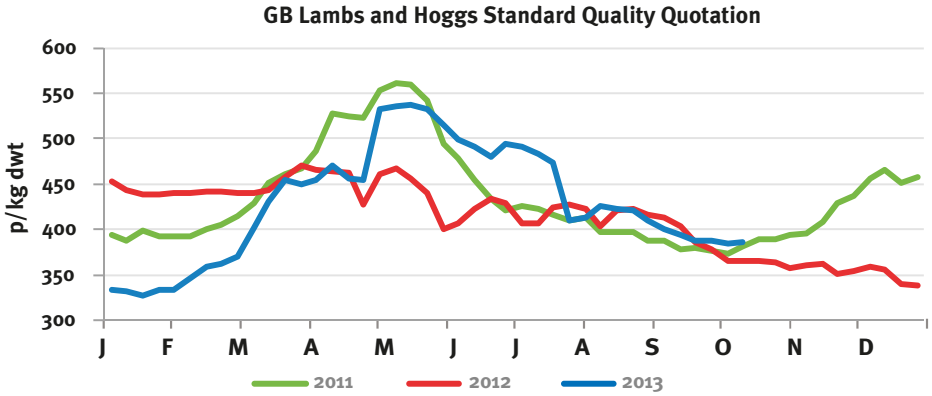
Store cattle prices started 2012 around 20-25% higher than 12 months earlier. This was sustained throughout much of the first half of the year. However, once prices steadied in May they were broadly flat for the remainder of the year and followed an almost identical trend to 2011 between August and November. In the second half of the year, prices averaged only one per cent higher than a year earlier and in fact closed 2012 down nearly four per cent year-on-year.

Prime sheep producer prices opened 2012 at 453p/kg dwt. This was 60p/kg (15%) higher year-on-year. Prices softened slightly before stabilising at around 440p/kg dwt from mid-January to late March. There was then a seasonal increase around Easter and then a further increase as new season lambs reached the market in May. However, both of these were much less pronounced than in previous years as a larger carryover of hoggs resulted in a better supplied market. Consequently, the annual peak for deadweight lambs, at 467p/kg in mid-May, was 17% lower than in 2011. As the number of new season lambs reaching the market increased, prices quickly fell back in June before steadying around 420p/kg between June and early September. As volumes reached their seasonal peak in September prices fell back, and they traded at around 360p/kg in October. Whereas in previous years the market had picked up ahead of the festive season, in 2012 they continued to slide, falling to an annual low of 339p/kg in the final week of the year. This left lambs around 25% cheaper than a year earlier. During 2012, deadweight prime sheep prices averaged 5% lower than in 2011 at 401p/kg.

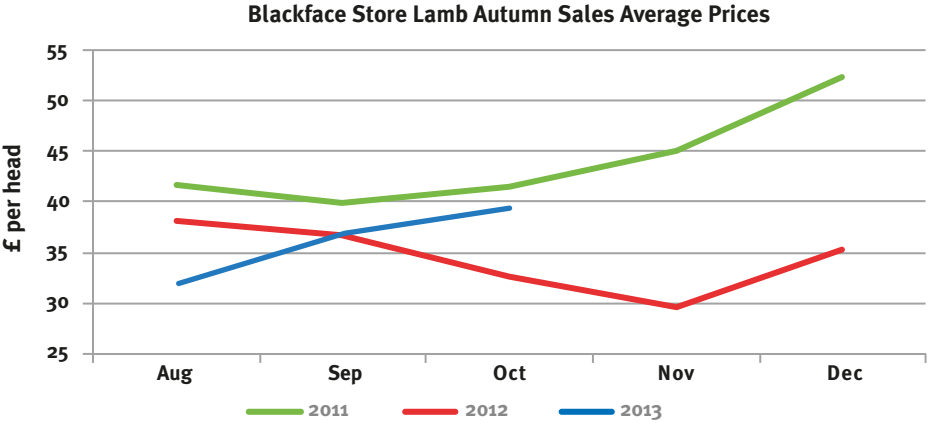


Between September and November 2012, store lamb prices fell back in a similar way to prices for finished lambs. As this contrasted with the previous year where prices had picked up steadily towards the year-end, Blackface store lambs sold for around a third less than in late 2011.

The 2012 peak store lamb selling season failed to match 2011 with the average price between August and December down 17% year-on-year.



In the opening months of 2012, agricultural input prices increased slowly. Energy costs rose significantly as the oil price spiked due to the combination of strong demand from emerging economies and the prospect of tighter supplies due to the threat of conflict between the US and Iran. Feed prices also picked up as an extremely cold period of weather in Ukraine and Russia impacted on grain supplies. After a brief hiatus in the second quarter, input prices trended higher again in the third and fourth quarters. The principal driver was spiking feed costs as a drought in the US reduced grain and protein crop production, while a wet summer led to a poor harvest in the UK. However, broadly flat oil prices helped stabilise energy costs while fertiliser prices trended lower, providing at least some respite for under pressure producers.

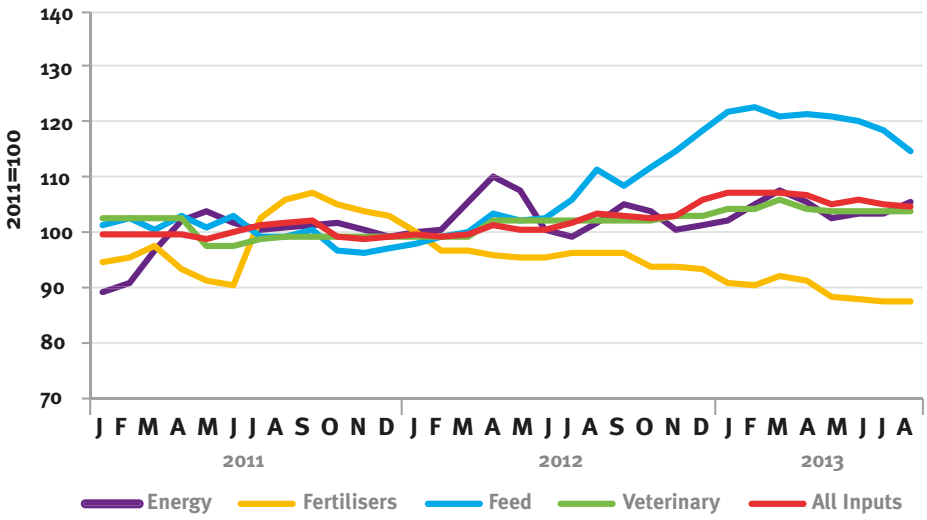


2013 Prospects

Since the survey data was collected, there have been some changes in the marketplace. Cattle supplies tightened further in the first third of 2013 before increasing slightly over the summer months. Nevertheless, supplies remain tight. Prime cattle prices increased steadily and for most of the year have been around 15% higher than in 2012. Store cattle prices matched year earlier levels in early 2013 and were well ahead of year earlier levels at the autumn sales.

On the sheep side, producer prices have shown a more normal seasonal variation this year. After a slow start to the year, prices picked up as weaker sterling underpinned overseas demand. Nevertheless, it was not until April that producer prices matched year earlier levels and this is reflected in the lower margins from store lamb enterprises. The 2013 lamb marketing year got off to a slow start, in respect to volumes, due to the difficult weather conditions in late 2012 and early 2013 - that led to a smaller lamb crop, delayed grass growth and slowed growth rates. As a result, lamb prices made a strong start to the season but fell sharply in July as lamb marketing surged to reach a six-year high. Demand also eased as consumers shifted their purchases away from fresh meat. Prices then held slightly behind 2012 levels until late September when processors began to secure product for an Islamic festival in mid-October. The market has since held firm into late October and prices have been trading around 10% higher than last year. Since the start of the new lamb marketing year in May 2013, prices have averaged 7% higher year-on-year.

Selected Agricultural Input Costs Source: Defra



The domestic economy has finally begun to show signs of recovery, growing strongly in the first three quarters of the year and picking up momentum. Although inflation has remained above target and earnings growth has been particularly sluggish, British consumers have become increasingly confident. However, despite considerable improvement in the general economy, the volume of beef retailed in GB was up only slightly year-on-year in the four weeks in mid-September as retail price growth outpaced increased consumer spending. So despite spending more on beef the consumer did not increase the volume of beef bought to the same degree.

It was a similar story on the lamb side as retail prices began to rise. Nevertheless, in the year-to-date lamb sales volumes have been much higher than in 2012. On the export side, conditions have improved this year due to the positive impact of a weaker sterling on UK price competitiveness, plus stronger demand as the Euro Area has begun to show signs of recovery. By contrast, beef exports have eased due to tight domestic supplies leaving less meat available for export.

Input costs have eased slightly through 2013 with notable declines in fertiliser and feed costs as the year has progressed. Nevertheless, feed has only returned to the price levels seen in autumn 2012. However, with improved weather conditions, it is likely that the requirement for purchased feed will be lower than last year. However, the benefit of falling input prices will be influenced by the timing of input buying as feed prices remained well above year earlier levels throughout the first half of the year. Therefore, while it may seem obvious that 2013 will prove to be a much better year for beef farmers, those who bought significant volumes of feed in the early part of both years may not see a substantial improvement in their bottom line.

In the sheep sector, lower average farmgate prices indicate that margins are likely to have narrowed; although more favourable growing conditions over the summer months may well have benefited technical performance and purchased input requirements. Those selling later in the season will have benefited from higher prime lamb prices although store lamb prices have struggled to match last year's levels. Then again, significant lamb losses due to the harsh lambing conditions seem likely to have held down profitability in the worst hit areas of the country.

As is always the case, though, profitability will also be linked to the timing of sales and input purchases. At certain points of the year prices have been above 2012 levels and at other times lower. In general, however, the cost-price balance favours improved margins among both cattle and sheep producers in the 2013 production year.

Structural Changes in 2012

Among the suckler herds surveyed, 22% increased cow numbers by more than 5% while 29% reduced cow numbers by more than 5%. Overall, the number of cows farmed by those in the survey was unchanged in contrast to the national decline of 1% reported in the Scottish agricultural census of December 2012.

However, there were significant differences in behaviour between farm type. Hill and upland herds showed a net decline in cow numbers while rearer finishers and lowground suckler herds shown some increase in cow numbers. The biggest proportionate decline in cow numbers occurred amongst upland herds selling yearling calves and the biggest proportionate increase occurred among non-LFA suckler herds.

With regard to breeding sheep enterprises, the total number of ewes farmed by those in the survey increased by one per cent, the same level of change reported in the national flock in the December 2012 Scottish agricultural census. Nevertheless, 13% of flocks increased in size by more than five per cent while 20% reduced flocks by more than 5%. The biggest proportional increase in ewe numbers occurred among upland flocks while the hill flock was unchanged and the lowground flock declined.

CATTLE ENTERPRISES

Results from LFA hill suckler herds

The 15 herds in this category are those enterprises where open, unimproved hill land makes up more than three-quarters of the farm area, resulting in low stocking densities, and where more than half the calves are sold at weaning. Herd size ranged from six to 190 cows with an average size of 57 head.

- Hill suckler herds achieved an average gross margin of £234 per cow. The top third achieved an average gross margin of £425, 82% better than the average and more than three times the level among the bottom-third.
- Fixed costs averaged £369 per cow, but with a considerable variation from £100 to £614 per cow. This resulted in an average net margin of (-) £136 per cow. Despite spending £29 per head more on fixed costs, those among the top third spent £95 per cow less on variable costs but achieved an output £117 better than the average resulting in a net margin of £27 per cow some £163 better than the average.
- The main contributors to this improved margin were higher prolificacy among the herd and higher sale weights. Those in the top third sold calves at an average weight of 313kg, 15kg higher than the average but also reared five more calves per 100 cows than the average. This resulted in them selling 10% more calf weight per cow in the herd. Furthermore, they achieved this with less recourse to purchased concentrates and forage expenditure.
- Across the businesses surveyed, the average number of calves reared per 100 cows was 90. Top third producers' calf rearing rate was 94 calves per 100 cows while bottom third producers reared two calves per 100 cows less than the average. Typically, four calves per 100 cows were born dead or died before weaning with little difference in losses across the surveyed farms. However, those in the bottom third did suffer higher rates of cow mortality.
- The most profitable herds show a high level of technical performance, measured as calves reared ratios and growth rates along with lower cow mortality, not withstanding lower veterinary costs and lower feed costs. However, these top third herds did have higher fixed costs, most notably in respect of power, machinery and property costs. With lower paid and unpaid labour this would suggest those in the top-third were more capital intensive in their day-to-day operation. In contrast those in the bottom third are more labour intensive and made greater use of contractors.
- When compared to their upland counterparts selling weaned calves but farming more favoured land, these hard hill suckler herds returned net margins some £7 below those in the slightly more favoured farming environment. However, those in the top third of financial performance fared better than their top third counterparts among upland herds selling weaned calves.

LFA hill suckler herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	15	5
Average herd size (head)	83	57	50
		£ per cow	
Calf output after valuation changes	470.18	560.19	639.31
Subsidies	38.45	45.48	51.35
Gross Output	**508.62**	**605.67**	**690.67**
less replacements	55.03	49.76	38.56
Net Output	**453.59**	**555.91**	**652.11**
Variable Costs			
Purchased concentrates	93.15	109.80	85.98
Home grown concentrates	36.13	17.45	0
Roughages purchased	31.02	46.34	14.06
Forage	104.88	78.63	74.86
Total Feed and Forage	*265.17*	*252.22*	*174.90*
Veterinary	23.61	29.70	12.26
Bedding	5.89	11.57	23.94
Other costs	30.66	28.73	15.71
Total variable costs	**325.33**	**322.22**	**226.81**
Gross Margin	**128.26**	**233.69**	**425.30**
Fixed costs			
Labour	131.85	113.22	94.03
Contractors	27.44	17.02	2.61
Power and machinery	48.02	70.00	97.71
Property maintenance and rent	49.73	74.30	108.36
Depreciation	65.82	59.86	60.34
Finance	3.35	5.08	3.87
Administration	36.69	29.75	31.29
Total Fixed Costs	**362.90**	**369.24**	**398.20**
Net Margin	**(-) 234.64**	**(-) 135.55**	**27.10**
Annual herd maintenance cost Pence per kg calf produced	23	19	13
Variable cost			
Pence per kg calf produced	138	121	77
Fixed cost			
Pence per kg calf produced	154	139	77
Unpaid family labour hours	11 hrs 20 mins	10 hrs 40 mins	8 hrs 15 mins

Totals may not add up exactly due to rounding

LFA hill suckler herds - financial performance measures

	Bottom Third	Average	Top Third
Calves born dead or alive per 100 cows	91	94	98
Calves born dead per 100 cows	2	3	3
Calves died before weaning per 100 cows	2	1	1
Calves reared per 100 cows	87	90	94
Daily liveweight gain (kg)	0.99	0.98	1.02
Weight - kg per calf sold	273	298	313
Weight produced kg per 100 cows	23600	26800	29300
Cow replacement rate per 100 cows	13	14	14
Cow mortality %	2	1.4	1.5
Purchased concentrates kg per cow	380	490	370
Home grown concentrates kg per cow	*174*	*84*	*0*
Nitrogen kg per ha	*6*	*2.2*	*1*
Stocking rate GLU/ha	*0.14*	*0.25*	*0.5*

Totals may not add up exactly due to rounding

Results from LFA suckler herds

The upland suckler herd sample has been split into two sub-groups in order to give a better reflection of the production systems in use in Scotland. One group includes farms of a more extensive nature that sell the majority of calves at weaning, while the other group has farms that sell calves as forward stores at around one year. Although the main calving period was noted, the sample size of autumn calving herds was insufficient to allow separate analysis of the different cost structures between spring and autumn calving.

Extensive upland herds selling calves at weaning

The 31 herds in this category farmed 3,310 cows, an average herd size of 104 cows within a range from 32 to 313 cows, and reported an average gross margin of £241 per cow and a net margin of (-) £142 per cow. The top third of enterprises returned a gross margin of £349 per cow, £108 (45%) better than the average and £197 per cow better than the bottom third. Top third producers reported a net margin of (-) £36, £106 per head better than the average. Ten percent of businesses reported a positive net margin.

- Top third producers produced 34kg more calf weight per cow than the average and 67kg more than the bottom third. This was achieved through a combination of factors:
  - Higher calving percentages - 87 calves reared per 100 cows (one more than the average); and
  - 22 kg per calf higher sale weights;
- Top third producers had lower cow mortality rates and lower herd maintenance rates resulting in lower herd maintenance charges.
- Variable costs were 18% lower among the top third than the average. Although they used more concentrates, particularly purchased concentrates, they spent less on forage and roughages, bedding and veterinary costs.
- Fixed costs per cow were little different between the average and the top third although the top third producers did carry higher machinery and property costs than the average along with higher depreciation and finance charges. The lower paid labour and contractor charges across the top third suggests that these businesses were more capital intensive than the average although they did have a much greater dependence on unpaid family labour. However, because of better technical performance, those in the top third spread their fixed costs over a greater weight of calf produced and fixed costs per kg of calf reared were some 25% lower than the average.

Upland herds selling calves at around one year old

Thirty herds farming an average of 116 cows each were categorised as herds selling calves at an older age of about 12 months. This older age at sale resulted in the average weight of calves sold being 380kg, some 29% higher than those sold at weaning. As a consequence, not surprisingly, variable costs per cow were higher among this group than those of their counterparts selling calves at weaning, by almost 40%. However, when considered against the weight of animal sold rather than per cow, the variable costs among this group were almost 25% lower when measured per kg of calf reared.

Heavier sale weights resulted in an income considerably higher than those selling weaned calves and the extra variable costs associated with keeping the calves longer were easily recouped from the marketplace. The average gross margin among this group was consequently some 30% better than for those selling weaned calves.

However, timing of sale also played a part in income to these businesses. Those selling calves at weaning in the autumn of 2012 averaged 206 p/kg lwt while those selling older calves in early 2013 averaged 217 p/kg.

Fixed costs, however, were much higher among this group particularly in respect of labour, administration and finance costs. As a result the £75 per cow improvement in gross margin was eroded to a point where the net margin among those selling yearling stores was only £33 per cow better than those selling weaned calves.

- Top third businesses selling yearlings returned a gross margin of £461 per cow, £145 (45%) better than the average and £244 better than the bottom third producers. They achieved this better financial return through improved herd productivity rearing four more calves per 100 cows than the average. Although they sold these calves at a lower weight the yield per cow in the herd was 2.5% more than the group average.
- Top third producers fed a significantly smaller quantity of purchased and home grown feed. In contrast bottom third producers incurred more concentrate feed, roughage and forage costs per cow than the average without seeing any benefits in increased production.
- Top third producers had a higher fixed cost burden than the average, largely as a result of substituting unpaid family labour for paid labour. However, they did carry the highest finance charges and had the highest depreciation charges, suggesting a higher degree of mechanisation and capital investment in the business. Nevertheless, 70% of businesses in the top third achieved a positive net margin.

Over the year those businesses selling yearling calves reduced their herd size by two per cent while those selling weaned calves maintain their herd size.

Extensive upland suckler herds selling weaned calves
Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	11	31	11
Average herd size (head)	121	104	87
		£ per cow	
Calf output after valuation changes	466.41	522.98	573.92
Subsidies	38.56	41.09	43.35
Gross Output	**504.97**	**564.07**	**617.26**
less replacements	81.05	71.96	62.56
Net Output	**423.92**	**492.11**	**554.70**
Variable Costs			
Purchased concentrates	43.97	29.33	24.14
Home grown concentrates	3.83	18.31	31.63
Roughages purchased	31.93	29.15	21.46
Forage	106.36	95.68	80.59
Total Feed and Forage	*186.08*	*172.47*	*157.83*
Veterinary	38.45	36.85	23.52
Bedding	24.12	21.84	5.92
Other costs	23.48	19.68	18.24
Total variable costs	**272.13**	**250.84**	**205.52**
Gross Margin	**151.79**	**241.27**	**349.18**
Fixed costs			
Labour	71.62	66.21	32.94
Contractors	27.28	34.66	29.81
Power and machinery	113.93	98.78	102.52
Property maintenance and rent	81.16	80.03	89.35
Depreciation	76.24	68.88	82.43
Finance	14.40	15.84	20.33
Administration	9.97	18.95	28.31
Total Fixed Costs	**394.61**	**383.35**	**385.68**
Net Margin	**(-) 242.82**	**(-) 142.08**	**(-) 36.50**
Annual herd maintenance cost Pence per kg calf produced	36	28	20
Variable cost			
Pence per kg calf produced	120	99	74
Fixed cost			
Pence per kg calf produced	174	151	139
Unpaid family labour hours	6 hrs 40 mins	8 hrs 25 mins	13 hrs 55 mins

Totals may not add up exactly due to rounding

Extensive upland suckler herds selling weaned calves
Technical performance measures

	Bottom Third	Average	Top Third
Calves born dead or alive per 100 cows	89	92	94
Calves born dead per 100 cows	5	4	4
Calves died before weaning per 100 cows	3	3	2
Calves reared per 100 cows	82	86	87
Daily liveweight gain (kg)	1.03	1.05	1.04
Weight - kg per calf sold	278	295	317
Weight produced kg per 100 cows	22700	25300	27800
Cow replacement rate per 100 cows	16	14	14
Cow mortality %	4.3	2.7	1.7
Purchased concentrates kg per cow	194	127	103
Home grown concentrates kg per cow	*25*	*176*	*389*
Nitrogen kg per ha	*33*	*21*	*15*
Stocking rate GLU/ha	*0.87*	*0.94*	*1.06*

Totals may not add up exactly due to rounding

Upland suckler herds selling yearling calves
Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	10	30	10
Average herd size (head)	112	116	97
		£ per cow	
Calf output after valuation changes	654.32	704.43	750.48
Subsidies	34.47	38.31	42.40
Gross Output	**688.79**	**742.74**	**792.88**
less replacements	74.35	78.69	73.70
Net Output	**614.45**	**664.05**	**719.18**
Variable Costs			
Purchased concentrates	146.52	91.85	61.33
Home grown concentrates	5.63	26.48	14.51
Roughages purchased	40.56	30.59	13.43
Forage	100.60	86.55	84.35
Total Feed and Forage	*293.31*	*235.47*	*173.62*
Veterinary	58.30	48.00	30.32
Bedding	25.77	37.49	26.06
Other costs	20.50	27.06	28.20
Total variable costs	**397.89**	**348.03**	**258.20**
Gross Margin	**216.56**	**316.03**	**460.98**
Fixed costs			
Labour	62.77	87.30	38.49
Contractors	43.08	29.42	25.51
Power and machinery	118.41	98.23	92.71
Property maintenance and rent	98.43	81.10	71.88
Depreciation	76.87	67.83	86.92
Finance	20.91	27.81	45.93
Administration	34.52	33.65	26.91
Total Fixed Costs	**455.00**	**425.35**	**388.35**
Net Margin	**(-) 238.43**	**(-) 109.32**	**72.63**
Annual herd maintenance cost Pence per kg calf produced	24	24	22
Variable cost			
Pence per kg calf produced	130	76	78
Fixed cost			
Pence per kg calf produced	149	131	117
Unpaid family labour hours	7 hrs 20 mins	7 hours	14 hrs 10 mins

Totals may not add up exactly due to rounding

Upland suckler herds selling yearling calves
Technical performance measures

	Bottom Third	Average	Top Third
Calves born dead or alive per 100 cows	91	92	94
Calves born dead per 100 cows	5	4	3
Calves died before weaning per 100 cows	5	3	2
Calves reared per 100 cows	81	85	89
Daily liveweight gain (kg)	0.86	0.90	0.90
Weight - kg per calf sold	379	380	372
Weight produced kg per 100 cows	30500	32400	33200
Cow replacement rate per 100 cows	18	16	10
Cow mortality %	3	2.5	1.7
Purchased concentrates kg per cow	659	390	261
Home grown concentrates kg per cow	*38*	*133*	*88*
Nitrogen kg per ha	*12*	*10*	*10*
Stocking rate GLU/ha	*0.59*	*0.75*	*0.87*

Results from non-LFA lowground suckler herds

Seventeen non-LFA suckler enterprises farming 1398 cows were surveyed. They achieved an average gross margin of £242 per cow and an average net margin of (-) £131 in a range from (-) £525 to +£184. Only three businesses reported a positive net margin per cow.

- Top third producers achieved an average gross margin of £394 per cow, £150 (63%) better than the overall average. Fixed costs per cow among the top third were higher than the average and thus the improvement in financial performance diminished to £115 at net margin level.
- Improved margin was aided by better physical performance including:
  - Higher calf rearing rates - three more calves reared per 100 cows than the average;
  - Higher sale weights - 29 kg per head heavier at sale than the average;

  This greater physical output per cow was also complemented by better sale prices which collectively resulted in gross output £93 per cow higher than the average. Buying in replacement cows at a lower price than the average helps to reduce the herd maintenance charge among the top third so net output was £109 higher than the average
- Those in the top third by gross margin had strict control over variable costs without compromising physical performance. Not only did they spend less than the average on feed and forage they also used less bedding and achieved savings in general livestock expenses.
- However, the top third did carry higher fixed costs. Savings in paid labour were more than offset by higher expenditure on contractors and machinery and property costs. Finance costs were also slightly higher than the average.
- As with other enterprise types among the suckler herds, the bottom third producers were characterised by low physical performance combined with higher input costs per cow.

Non-LFA lowground suckler herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	17	6
Average herd size (head)	57	82	47
		£ per cow	
Calf output after valuation changes	376.71	526.27	611.22
Subsidies	38.75	42.52	50.86
Gross Output	**415.46**	**568.79**	**662.09**
less replacements	86.66	70.20	54.87
Net Output	**328.80**	**498.59**	**607.21**
Variable Costs			
Purchased concentrates	42.41	22.41	30.73
Home grown concentrates	11.50	21.01	7.34
Roughages purchased	28.97	31.70	20.55
Forage	92.52	66.86	64.96
Total Feed and Forage	*175.41*	*141.98*	*123.58*
Veterinary	58.55	50.06	49.31
Bedding	28.54	41.81	29.98
Other costs	25.52	22.57	10.30
Total variable costs	**288.02**	**256.42**	**213.17**
Gross Margin	**40.78**	**242.17**	**394.04**
Fixed costs			
Labour	147.48	83.80	57.28
Contractors	20.35	23.14	39.57
Power and machinery	67.54	95.43	118.39
Property maintenance and rent	35.63	82.34	101.54
Depreciation	45.66	60.23	63.88
Finance	14.58	10.47	13.61
Administration	22.82	18.41	16.18
Total Fixed Costs	**354.05**	**373.83**	**410.45**
Net Margin	**(-) 313.27**	**(-) 131.66**	**(-) 16.41**
Annual herd maintenance cost Pence per kg calf produced	44	27	18
Variable cost			
Pence per kg calf produced	145	98	68
Fixed cost			
Pence per kg calf produced	179	143	138
Unpaid family labour hours	2 hrs 15 mins	6 hrs 10 mins	6 hrs 10 mins

Totals may not add up exactly due to rounding

Non-LFA lowground suckler herds - technical performance measures

	Bottom Third	Average	Top Third
Calves born dead or alive per 100 cows	80	91	97
Calves born dead per 100 cows	3	2	3
Calves died before weaning per 100 cows	1	3	5
Calves reared per 100 cows	76	86	89
Daily liveweight gain (kg)	1.02	1.08	1.15
Weight - kg per calf sold	262	306	335
Weight produced kg per 100 cows	19800	26200	29800
Cow replacement rate per 100 cows	14	16	19
Cow mortality %	1.9	1.8	4.2
Purchased concentrates kg per cow	194	97	145
Home grown concentrates kg per cow	*70*	*124*	*49*
Nitrogen kg per ha	*13*	*16*	*4*
Stocking rate GLU/ha	*1.4*	*1.5*	*1.0*

Totals may not add up exactly due to rounding

Results from rearer finisher enterprises

In the case of these 22 enterprises farming 2,090 cows, the reported margins relate to the costs and income for a 12 month period to the end of April 2013.

The businesses surveyed produced an average gross margin per cow of £397, within a range of £21 to £770 per cow, and an average net margin of (-) £70 per cow. Eight (36%) enterprises reported a positive net margin.

- The top third producers ranked by gross margin per cow achieved a net output £140 higher than the average largely through the production of 26% more saleable output per cow. This was partially the result of higher prolificacy (one more calf reared per 100 cows), heavier sale weights (+8kg) and better sale prices (+3p/kg lwt) and partly due to valuation changes in respect of yearling cattle. Net output was also impacted by the lower cow replacement rates among the top third and hence lower herd maintenance charges.
- Higher output was the greatest contributor to higher margins among the top third although they did spend £38 (7%) per cow less on variable costs than the average. Although they spent more on concentrates and purchased roughages they spent less on forage production and in veterinary expenses.
- Fixed costs were also strictly controlled among the top third where £57 per cow less was spent than the average, largely the result of lower property and depreciation charges.
- Bottom third producers had significantly lower output per cow, a reflection of lower calving rates and higher herd maintenance charges. A lower number of animals within the enterprise meant that savings could be made on variable costs but insufficient to offset the lower output and so bottom third gross margins were some £172 per cow lower than the average. Fixed costs were little different between the average and the bottom third.

Rearer finisher herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	7	22	7
Average herd size (head)	98	95	87
		£ per cow	
Calf output after valuation changes	713.40	957.50	1072.51
Subsidies	39.74	41.89	43.54
Gross Output	**753.13**	**999.39**	**1116.05**
less replacements	99.77	75.96	53.24
Net Output	**653.36**	**923.44**	**1062.80**
Variable Costs			
Purchased concentrates	68.38	119.46	100.68
Home grown concentrates	50.94	98.71	133.01
Roughages purchased	45.94	48.45	60.11
Forage	128.34	115.86	67.67
Total Feed and Forage	293.61	382.49	361.47
Veterinary	54.32	49.64	31.82
Bedding	45.96	52.16	50.61
Other costs	34.69	41.94	44.38
Total variable costs	**428.58**	**526.24**	**488.28**
Gross Margin	**224.78**	**397.20**	**574.52**
Fixed costs			
Labour	81.70	94.93	94.20
Contractors	43.18	50.43	35.27
Power and machinery	108.71	106.62	108.24
Property maintenance and rent	113.71	98.13	105.83
Depreciation	69.21	65.79	54.15
Finance	22.84	20.82	11.42
Administration	36.81	31.31	20.84
Total Fixed Costs	**476.17**	**468.03**	**429.94**
Net Margin	**(-) 251.39**	**(-) 70.83**	**144.58**
Annual herd maintenance cost pence per kg calf produced	29	19	11
Variable cost			
Pence per kg calf produced	123	131	96
Fixed cost			
Pence per kg calf produced	136	120	85
Unpaid family labour hours	9 hrs 10 mins	7 hrs 10 mins	5 hrs 10 mins

Totals may not add up exactly due to rounding

Rearer finisher herds - technical performance measures

	Bottom Third	Average	Top Third
Calves born dead or alive per 100 cows	91	94	94
Calves born dead per 100 cows	5	4	3
Calves died before weaning per 100 cows	3	2	2
Calves reared per 100 cows	83	88	89
Daily liveweight gain (kg)	0.88	0.83	0.84
Weight - kg per calf sold	593	580	588
Weight - kg per calf sold store	400	400	0
Weight produced kg per 100 cows	34800	40100	50700
Cow replacement rate per 100 cows	19	15	14
Cow mortality %	4.2	2.6	2.1
Purchased concentrates kg per cow	283	505	406
Home grown concentrates kg per cow	*288*	*721*	*1122*
Nitrogen kg per ha	*14*	*14*	*14*
Stocking rate GLU/ha	*0.65*	*0.88*	*1.27*
Selling price p/kg dwt finished	*362*	*364*	*370*
Selling price p/kg lwt store	*200*	*200*	*0*

Totals may not add up exactly due to rounding

Cattle Finishing

Results from cereal based cattle finishing enterprises

Fifteen cereal based cattle finishing enterprises were surveyed. They sold 1,100 cattle and achieved an average gross margin of £166 per animal. The average net margin among those surveyed was positive at £107 per head and ranged from (-) £79 to £337 per head. Twelve businesses (80%) reported a positive net margin.

- Enterprises in the top third of those surveyed had the longest feeding period, 247 days, although this was only four days more than the average. They sold the heaviest cattle having added the greatest weight as a result of having the highest growth rates. Although they paid 2p/kg lwt more for their store cattle, they achieved a selling price some 12-13 p/kg lwt better than the average. Almost 90% of the cattle finished among the top third were males, although young bulls were only 30% of the total. Those in the bottom third had the shortest feeding period, and had the greatest proportion of heifers (40%) in their sales mix.
- Those in the top third, despite the longest feeding period, used both less concentrate feed per animal reared and less concentrate fed per day the animal was being finished. Ninety per cent of the concentrate feed used by top-third producers was derived from home grown cereals while among the bottom third this fell to 72%.
- However, although those in the top third used more concentrates they used less roughage and forage and spent less on animal health. As a consequence they achieved their higher output with £20 less expenditure on variable costs. There was little difference in fixed costs between the average and the top third although the top third did spend an average of £3 less per cow on fixed costs and had the lowest fixed costs across the sample.

Cereal based cattle finishing enterprises - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	15	5
Average herd size (head)	49	72	94
		£ per cow	
Stock Sales	**1019.70**	**1229.11**	**1381.75**
Less stock purchases	573.85	657.38	745.58
Net Output	**445.84**	**571.73**	**636.17**
Variable Costs			
Purchased concentrates	89.54	84.72	46.28
Home grown concentrates	170.15	178.62	206.86
Other Feeds	21.91	22.98	19.36
Forage	20.41	7.63	3.29
Total Feed and Forage	*302.01*	*293.95*	*275.79*
Veterinary	26.85	12.93	8.39
Bedding	49.24	30.69	28.82
Other costs	34.92	35.10	40.83
Total variable costs	**413.02**	**372.68**	**353.84**
Gross Margin	**32.83**	**199.05**	**282.33**
Fixed costs			
Labour	23.36	22.47	26.18
Contractors	10.54	8.20	8.25
Power and machinery	32.84	21.00	18.74
Property maintenance and rent	25.13	18.06	10.65
Depreciation	15.32	13.02	13.07
Finance	5.34	4.24	4.73
Administration	1.69	5.04	7.10
Total Fixed Costs	**114.23**	**92.02**	**88.72**
Net Margin	**(-) 81.40**	**107.03**	**193.61**
Stores purchased – pence per kg lwt sold	102	108	112
Variable cost	73	61	53
Pence per lwt sold			
Fixed cost			
Pence per kg calf produced	20	15	13
Unpaid family labour hours	1 hr 50 mins	1 hour	30 mins

Totals may not add up exactly due to rounding

Cereal based cattle finishing enterprises - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	229	243	247
Start weight (kg lwt)	312	289	324
Finish weight (kg lwt)	563	610	664
Daily liveweight gain (kg)	1.10	1.32	1.37
Mortality (%)	0	0.1	0.1
Purchased concentrates kg/head	433	328	164
Home grown concentrates kg/head	1140	1202	1348
Purchase price (£ per kg lwt)	1.84	2.27	2.29
Purchased concentrates kg/head	3.27	3.51	3.58
Sales			
Steers % of sales	32	33	59
Liveweight at sale	550	659	687
Steer selling price p/kg dwt	328	362	370
Heifers % of sales	40	33	11
Liveweight at sale	532	510	549
Heifer selling price p/kg dwt	323	337	321
Young bulls % of sales	28	34	30
Liveweight at sale	623	657	660
Young bull selling price p/kg dwt	329	351	347

Results from forage based cattle finishing enterprises

This year the forage based finishers surveyed have been split into two groups based on the age at which the majority of the cattle have been sold. The average age at which Scottish prime cattle are slaughtered is twenty two months of age. This has been taken as the age for splitting the business surveyed. Thus the two groups are those selling finished cattle under 22 months of age and those selling finished cattle over 22 months of age.

The first group, selling younger cattle, comprises 18 businesses finishing an average of 57 cattle and the second group, selling older cattle, also comprises 18 businesses but with a slightly larger average size of 85 cattle.

- Those selling younger cattle reported a gross margin of £252 per animal sold falling to a net margin of £36 per animal sold; 60% of businesses in this group achieved a positive net margin. Their counterparts selling older cattle reported a gross margin of £140 per head and a net margin of (-) £68, 40% of businesses in this group achieved a positive net margin.

- Although they kept cattle for longer and sold heavier cattle, those in the older age group reported lower daily growth rates and a 10% greater use of concentrate feeds. Equally, and not unexpectedly, they had higher forage costs. However, as a result of lower bedding and general livestock costs the group selling older cattle had variable costs £7 per head lower than those selling younger cattle.
- Those selling younger cattle had a greater dependence on paid labour and a greater expense on machinery and property maintenance than their counterparts selling older cattle. This was the major contributor to those selling younger cattle carrying fixed costs £7 per head higher. Total cost per head then were £14 per head (2.5%) higher among those selling the younger cattle in practice there is then little difference in the cost structure between the two groups.
- The major difference in financial performance is derived from the market place. Both groups sold a similar proportion of steers and heifers so the difference in financial performance really came from the buying and selling of stock. Those selling younger cattle sold lighter cattle but at a better price than those selling older cattle. They also bought smaller cattle at a lower price.
- Among those selling younger cattle the best margins were achieved by businesses achieving the highest price per kg for prime stock although they did sell the lightest animals. However, because they also bought the smallest animals, weight added was no different from the average. Nevertheless the weight gain was achieved from a lower use of concentrates and greater use of forage. Veterinary and bedding costs were much higher among the top third. They also had much higher fixed costs reflecting a lower use of contractors but a greater investment in machinery and property costs.
- Among those selling older cattle the best margins were once again characterised by the highest selling price and lowest purchase price. However, among this group the top-third added the most weight per animal and sold the heaviest cattle. Variable costs were a little higher largely through greater use of roughages and forage in the diet. Although the top third did achieve positive net margins, they did carry higher fixed costs than the average largely due to higher contractor costs and machinery and depreciation charges, suggesting a greater capital investment in business infrastructure.

Forage based cattle finishing under 22 months - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	18	6
Average herd size (head)	69	57	61
		£ per cow	
Stock Sales	**1272.48**	**1294.33**	**1360.06**
Less stock purchases	734.93	662.37	615.62
Net Output	**537.55**	**631.96**	**744.44**
Variable Costs			
Purchased concentrates	212.21	124.69	34.51
Home grown concentrates	18.60	82.93	149.54
Other Feeds	21.33	22.82	25.49
Forage	37.21	48.56	52.22
Total Feed and Forage	*289.35*	*279.00*	*261.75*
Veterinary	8.57	13.47	17.19
Bedding	29.12	39.85	61.85
Other costs	45.36	47.84	47.65
Total variable costs	**372.39**	**380.16**	**388.47**
Gross Margin	**165.16**	**251.80**	**355.97**
Fixed costs			
Labour	25.04	33.17	31.99
Contractors	22.59	18.37	4.91
Power and machinery	27.26	51.27	68.54
Property maintenance and rent	46.35	54.92	68.13
Depreciation	30.85	36.57	48.80
Finance	12.28	10.32	6.36
Administration	10.22	11.28	12.50
Total Fixed Costs	**174.59**	**215.92**	**241.24**
Net Margin	**(-) 9.43**	**35.88**	**114.73**
Stores purchased – pence per kg lwt sold	119	111	107
Variable cost pence per lwt sold	60	64	68
Pence per lwt sold			
Fixed cost pence per kg calf produced	28	36	42
Unpaid family labour hours	2 hrs 20 mins	1 hr 40 mins	50 mins

Totals may not add up exactly due to rounding

Forage based cattle finishing under 22 months - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	271	316	312
Start weight (kg lwt)	356	322	298
Finish weight (kg lwt)	619	597	574
Daily liveweight gain (kg)	0.97	0.87	0.88
Mortality (%)	0	0.2	0.3
Purchased concentrates kg/head	982	560	150
Home grown concentrates kg/head	116	483	849
Purchase Price (£ per kg lwt)	206	205	206
Purchased concentrates kg/head	358	376	408
Sales			
Steers % of sales	60	69	75
Liveweight at sale	653	617	584
Steer selling price p/kg dwt	355	371	393
Heifers % of sales	40	31	25
Liveweight at sale	567	554	544
Heifer selling price p/kg dwt	362	389	459
Young bulls % of sales	0	0	0
Liveweight at sale	0	0	0
Young bull selling price p/kg dwt	0	0	0

Forage based cattle finishing over 22 months - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	18	6
Average herd size (head)	153	85	63
		£ per cow	
Stock Sales	**1312.70**	**1356.99**	**1502.34**
less Stock Purchases	916.24	843.54	793.03
Net Output	**396.46**	**513.44**	**709.31**
Variable Costs			
Purchased concentrates	100.82	103.82	58.31
Home grown concentrates	104.71	103.86	128.03
Other Feeds	6.72	21.34	58.70
Forage	49.87	60.03	63.65
Total Feed and Forage	*262.13*	*289.05*	*308.69*
Veterinary	13.62	14.14	13.69
Bedding	26.01	29.63	21.42
Other costs	34.75	40.26	38.83
Total variable costs	**336.50**	**373.07**	**382.64**
Gross Margin	**59.96**	**140.37**	**326.68**
Fixed costs			
Labour	20.13	25.56	29.36
Contractors	11.04	19.50	32.29
Power and machinery	38.82	45.40	63.99
Property maintenance and rent	36.06	36.97	36.48
Depreciation	38.19	47.42	80.08
Finance	9.85	14.88	24.88
Administration	17.22	18.91	31.31
Total Fixed Costs	**171.31**	**208.64**	**298.38**
Net Margin	**(-) 111.36**	**(-) 68.27**	**28.30**
Stores purchased – pence per kg lwt sold	142	129	113
Variable cost pence per lwt sold	52	57	54
Pence per lwt sold			
Fixed cost pence per kg calf produced	26	32	42
Unpaid family labour hours	3 hrs 20 mins	3 hrs 40 mins	1 hr 55 mins

Totals may not add up exactly due to rounding

Forage based cattle finishing over 22 months - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	364	415	418
Start weight (kg lwt)	397	371	355
Finish weight (kg lwt)	647	656	703
Daily liveweight gain (kg)	0.69	0.68	0.84
Mortality (%)	0.3	0.3	0
Purchased concentrates kg/head	418	437	267
Home grown concentrates kg/head	624	629	798
Purchase Price (£ per kg lwt)	230	226	222
Purchased concentrates kg/head	352	355	366
Sales			
Steers % of sales	74	69	66
Liveweight at sale	653	674	742
Steer selling price p/kg dwt	349	356	370
Heifers % of sales	26	31	33
Liveweight at sale	615	614	630
Heifer selling price p/kg dwt	361	357	357
Young bulls % of sales	0	0	0
Liveweight at sale	0	0	0
Young bull selling price p/kg dwt	0	0	0

SHEEP ENTERPRISES

Results from LFA hill ewe flocks

This group of enterprises comprises purebred Blackface and Cheviot flocks farmed on some of the most disadvantaged land in Scotland. The sample covered 26 such flocks farming over 18,300 ewes. These flocks are characterised by low lambing percentages, averaging 99% lambs reared within a range of less than 70% to over 120%. The average gross margin achieved across this group was £26 per ewe, while the average net margin was (-) £13 per ewe within a range of (-) £40 to £25 per ewe. Five producers (20%) within this group made a small positive net margin.

- Producers in the top third benefit from better technical performance. The improvement in gross margin per ewe of £19 over the average is largely due to:
  - A higher number of lambs reared - 21 more lambs per ewe than average;
  - A higher proportion sold finished - 40% compared to an average of 26% - and a higher proportion sold for breeding;

  This in turn resulted in 35% more lamb produced per ewe; and a net output £20 per head higher than the average.
- Bottom third producers achieved a gross margin of £10, £23 lower than the average and a net margin of (-) £20, £17 worse than the average. However, it must be recognised that the producers in the bottom third were drawn almost exclusively from the North West Highlands and Islands region where climate and topography have a severe impact on ewe performance and the ability of producers to sell anything other than store lambs. This is reflected in a lamb reared percentage of 82% and only three lambs per 100 ewes sold finished.
- Variable costs among the top third producers were £4 per ewe lower than the average but little changed from those in the bottom third. Almost all of the variability among the top third was due to lower purchased concentrate use although forage and other feed costs were higher. In contrast bottom third producers had lower forage costs, perhaps a reflection of land quality and lower veterinary costs.
- Top third producers obtained the best returns from lamb sales through having a higher number of finished lambs to sell and consequently heavier lambs to sell, than the bottom third dependent on only store lamb sales.
- Top third producers carried much higher fixed costs particularly those associated with power and machinery and property. However, higher output among the top third easily outweighed the extra fixed costs. This left those in the top third reporting a positive net margin per ewe.
- In sharp contrast, the challenges of low productivity despite savings in fixed costs were amply illustrated by the significant negative gross margins reported among the bottom third of producers. Bottom third producers suffered considerably from lower lamb sales. Gross output for bottom third producers was less than half the average and, despite having a lower cost base per ewe, this was insufficient to offset the lower output and return from the market place.

LFA hill ewe flocks - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	9	26	9
Flock size	764	706	462
		£ per ewe	
Lamb sales	35.65	59.48	77.91
Wool	1.68	2.38	3.00
Gross Output	**37.34**	**61.86**	**80.90**
Less replacement costs	9.95	11.34	10.78
Net output	**27.38**	**50.52**	**70.13**
Variable costs			
Purchased concentrates	4.59	6.63	5.40
Home grown concentrates	0	0.26	0.56
Other feeds	1.11	1.90	2.22
Forage	4.25	3.78	5.43
Total feed and forage	*9.95*	*12.57*	*13.61*
Veterinary	4.33	6.21	7.08
Bedding	0	0.14	0.31
Other costs	3.79	5.51	4.43
Total variable costs	**18.07**	**24.43**	**25.43**
Gross margin	**9.31**	**26.09**	**44.70**
Fixed costs			
Labour	8.15	13.19	11.38
Contractors	2.79	2.32	3.91
Power and machinery	4.50	7.05	8.76
Property maintenance and rent	3.67	5.68	6.98
Depreciation	6.12	6.00	5.98
Finance	0.48	0.78	1.13
Administration	2.49	3.83	4.54
Total fixed costs	**28.21**	**38.85**	**42.69**
Net Margin	**(-) 18.89**	**(-) 12.77**	**2.01**
Flock replacements - pence per kg lamb produced	38	32	22
Variable cost - pence per kg lamb produced	69	68	52
Fixed cost - pence per kg lamb produced	107	108	88
Unpaid family labour hours	40 mins	30 mins	50 mins

Totals may not add up exactly due to rounding

LFA hill ewe flocks - technical performance

	Bottom Third	Average	Top Third
Ewes per ram	26	30	33
Ewe replacement rate %	20	26	32
Lambs born dead or alive per 100 ewes	98	116	133
Lamb mortality %	18	17	11
Lambs reared per 100 ewes	80	99	122
Average weight of lambs kg	32.9	36.2	39.8
Weight of lamb produced per 100 ewes kg	2622	3578	4851
Purchased concentrates kg/ewe	17	25	22
Home grown concentrates kg/ewe	0	2	4
Lambs sold finished per 100 ewes	6	26	49
Value per lamb £/head	55.04	63.46	65.77
Lambs sold/transferred store per 100 ewes	49	40	30
Value per lamb £/head	41.79	42.79	41.55
Lambs sold/transferred for breeding per 100 ewes	26	33	41
Value per lamb £/head	48.21	78.27	77.84

Results from LFA upland ewe flocks

LFA upland breeding flocks are identified as LFA farms running crossbred flocks. Thirty-two such flocks were recorded in this survey which collectively farmed some 19,700 ewes. These enterprises achieved an average gross margin of £59 per ewe and average net margin of £13 per ewe. Eighty percent of the businesses surveyed returned a positive net margin, a deterioration from last year's survey when all upland flocks achieved a positive net margin per ewe. The range of net margins reported was (-) £16 to £52 per ewe.

- Producers in the top third produced a gross margin of £79 per ewe, 33% better than the average and 88% better than the bottom third.
- Almost all of this improvement in gross margin among the top third came from higher returns from the marketplace as variable costs were little different from the average while and fixed costs per ewe were higher than the average. Higher output was achieved through improved flock performance including:
  - 14 more lambs reared per 100 ewes than the average;
  - 1.7kg higher prime lamb sale weights plus the highest proportion of prime lambs sold (73% of lambs compared to 64% on average); resulting in
  - 15% more liveweight of lamb produced per ewe than the average; and
  - A lower lamb mortality rate
  - Higher sale prices across all classes of stock.
- In contrast, bottom third producers achieved:
  - 16 fewer lambs reared per 100 ewes than the average;
  - The lowest proportion of prime lambs sold (51% compared to an average of 64%) plus lower store and breeding lamb weights than average; resulting in
  - 14% less liveweight lamb produced per ewe than the average.
- Variable costs per ewe were £4.50 higher than the average for those businesses in the top third, an increase of 14% over the average. This was due largely to heavier use of concentrates.
- Those in the top third carried fixed costs £4 (8%) per ewe higher than the average. This is largely accounted for through higher paid labour costs.

LFA upland ewe flocks - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	11	32	11
Flock size	659	616	604
		£ per ewe	
Lamb sales	86.74	103.46	124.39
Wool	3.80	3.50	2.98
Gross Output	**90.55**	**106.96**	**127.37**
less replacement costs	12.03	11.93	11.92
Net output	**78.52**	**95.03**	**115.45**
Variable costs			
Purchased concentrates	13.16	11.53	11.09
Home grown concentrates	0.60	0.73	0.89
Other feeds	0.80	1.55	1.35
Forage	7.60	7.71	8.21
Total feed and forage	*22.16*	*21.52*	*21.54*
Veterinary	8.22	7.62	7.11
Bedding	0.26	0.64	0.65
Other costs	5.98	6.40	7.25
Total variable costs	**36.62**	**36.17**	**36.54**
Gross margin	**41.90**	**58.86**	**78.90**
Fixed costs			
Labour	5.99	9.19	11.38
Contractors	4.00	3.42	2.55
Power and machinery	8.80	10.60	12.82
Property maintenance and rent	7.35	8.82	10.40
Depreciation	8.06	7.99	8.52
Finance	2.88	2.34	3.01
Administration	2.51	3.24	2.31
Total fixed costs	**39.60**	**45.60**	**50.98**
Net Margin	**2.30**	**13.26**	**27.92**
Flock replacements - pence per kg lamb produced	24	21	18
Variable cost – pence per kg lamb produced	74	63	56
Fixed cost – pence per kg lamb produced	80	80	78
Unpaid family labour hours	1 hr 30 mins	1 hr 10 mins	1 hr 20 mins

Totals may not add up exactly due to rounding

LFA upland ewe flocks - technical performance

	Bottom Third	Average	Top Third
Ewes per ram	36	34	33
Ewe replacement rate %	22	23	21
Lambs born dead or alive per 100 ewes	146	159	172
Lamb mortality %	19	16	15
Lambs reared per 100 ewes	127	143	157
Average weight of lambs kg	38.9	40.1	41.8
Weight of lamb produced per 100 ewes kg	4922	5723	6575
Purchased concentrates kg/ewe	50	45	45
Home grown concentrates kg/ewe	4	5	6
Lambs sold finished per 100 ewes	65	91	114
Value per lamb £/head	68.43	71.99	75.92
Lambs sold/transferred store per 100 ewes	39	27	13
Value per lamb £/head	64.86	61.40	65.93
Lambs sold/transferred for breeding per 100 ewes	23	25	30
Value per lamb £/head	75.55	87.14	97.44

Results from lowground breeding flocks

The twelve businesses in the survey farmed a some 4,150 ewes. The small sample size means that it is not sufficiently large to make sensible comparisons between the top and bottom third of businesses.

- All but two flocks in this group achieved a positive net margin with the average being £9 per ewe within a range form (-) £20 to £38 per ewe. This level of financial return was slightly lower than the average net margin of £13 per ewe among the LFA upland flocks.
- Although the business with the lowest margin did have the lowest ewe productivity the top two businesses did not have the highest ewe performance, although they were slightly better than the average performance of 134 lambs reared per 100 ewes. Compared to the upland flock average, the average lowground producer had a lower lambs reared percentage but sold, or used, a similar proportion of their lamb crop as prime lamb, stores and breeding sheep. However, they did achieve a better market return for prime lambs and breeding sheep. Nevertheless, having fewer lambs to sell than the upland average did result in lowground flocks having a lower net output than upland flocks.

- Variable costs among the lowground group were £4 per ewe lower than the upland average mainly as a result of less requirement for purchased feeds and some saving in vet costs. However, these were not sufficient to offset the lower output and the lowground flocks surveyed achieved a £4 per ewe lower gross margin then their upland counterparts. There was little difference in fixed costs per ewe between the low ground and upland flocks.

Lowground ewe flocks - financial performance measures

	Average
Number in sample	12
Flock size	348
	£ per ewe
Lamb sales	96.03
Wool	2.97
Gross Output	**99.00**
Less replacement costs	12.41
Net output	**86.59**
Variable costs	
Purchased concentrates	7.99
Home grown concentrates	1.06
Other feeds	1.34
Forage	6.71
Total feed and forage	*17.10*
Veterinary	5.97
Bedding	1.19
Other costs	7.53
Total variable costs	**31.79**
Gross margin	**54.80**
Fixed costs	
Labour	7.57
Contractors	3.11
Power and machinery	12.40
Property maintenance and rent	9.68
Depreciation	6.52
Finance	3.90
Administration	2.85
Total fixed costs	**46.03**
Net Margin	**8.77**
Flock replacements - pence per kg lamb produced	25
Variable cost - pence per kg lamb produced	65
Fixed cost - pence per kg lamb produced	94
Unpaid family labour hours	1 hr 30 mins

Totals may not add up exactly due to rounding

Lowground ewe flocks - technical performance

	Average
Ewes per ram	43
Ewes replacement rate %	23
Lambs born dead or alive per 100 ewes	150
Lambs mortality per 100 ewes	16
Lambs reared per 100 ewes	134
Average weight of lambs kg	37.4
Weight of lamb produced per 100 ewes kg	4920
Purchased concentrates kg/ewe	32
Home grown concentrates kg/ewe	6
Lambs sold finished per 100 ewes	86
Value per lamb £/head	73.76
Lambs sold/transferred store per 100 ewes	28
Value per lamb £/head	59.06
Lambs sold/transferred for breeding per 100 ewes	20
Value per lamb £/head	88.38

Results from store lamb finishing enterprises

Thirteen store lamb finishing businesses, selling some 8,750 lambs achieved an average gross margin of £1 per lamb. Net margins averaged (-) £3.50 per lamb in a range from (-) £12 to £6.50 per lamb with only half those surveyed achieving a positive net margin. The size of the group was insufficient to make sensible comparisons between top and bottom third performance.

- The average finishing period of 100 days within a range of 46 days to 175 days, with the average finisher added some 7kg to their lamb's purchase weight of 32.65kg. Both long and short keep finishers were equally represented among those with the best financial performance.
- Average mortality among the group was 2.0% within a range from 0% to 6%. Not surprisingly those with lowest mortality rates were more profitable.

Store lamb finishing - financial performance measures

	Average
Number in sample	13
Flock size	673
	£ per lamb
Lamb sales	**64.99**
Less purchases	51.38
Net output	**13.61**
Variable costs	
Purchased concentrates	5.54
Home grown concentrates	0.31
Other feeds	0.18
Forage	0.93
Total feed and forage	6.97
Veterinary	0.77
Bedding	0.14
Other costs	4.57
Total variable costs	**12.45**
Gross margin	**1.15**
Fixed costs	
Labour	0.92
Contractors	0.38
Power and machinery	0.88
Property maintenance and rent	1.34
Depreciation	0.65
Finance	0.19
Administration	0.28
Total fixed costs	**4.64**
Net Margin	**(-) 3.49**
Lambs purchased - pence per kg lwt lamb sold	130
Variable cost – pence per kg lwt lamb sold	31
Fixed cost - pence per kg lwt lamb sold	12
Unpaid family labour hours	10 mins

Store lamb finishing - technical performance

	Average
Weight of lamb purchased kg	32.6
Liveweight of lamb sold	39.5
Carcase weight of lamb sold	18.6
Sale price p/kg dwt	350
Daily liveweight gain	0.07
Finishing period – days	100
Mortality %	2
Purchased concentrates kg/lamb	21
Home grown concentrates kg/lamb	2

COMPARISONS

IMPROVING RETURNS THROUGH QUALITY

Beef

The quality of the stock presented to the market and its value to processors through improved meat yield, or less carcase trimming, will be reflected in market prices. For example, in 2012 the average price paid for a –U3 steer exceeded that of an R4L steer by 2.7p/kg dwt, while for heifers this differential was higher at 5.1p/kg dwt. An improvement in carcase quality from O+4H to R4L was worth 6.6p/kg dwt to producers for steers and 5.9p/kg dwt for heifers during 2011.

Compared to 2011 the premium for leaner better conformation steers and heifers (-U3) was little changed. By contrast, the premium between the benchmark R4L grading and the poorer conformation and fatter O+4H grade reduced by 20% for steers and 30% for heifers as stock supplies tightened up. As supplies tightened further into 2013 price differentials between grades narrowed further.

Using the average carcase weights of steers and heifers slaughtered in Scottish abattoirs during 2010, 2011 and 2012, a comparison can be made between the average carcase values of the differently graded animals and is summarised in the table below:

	Average -U3 premium over R4L (£/head)			Average R4L premium over O+4H (£/head)		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
Steer	6	11	10	29	31	25
Heifer	15	17	17	19	27	19

Lamb

As is the case for beef, there is also a financial reward from the market place where a lamb carcase meets an improved conformation and fat level. The average premium in Great Britain at price reporting abattoirs for a carcase achieving a grade of U2 over a carcase with an R3L grading was 9.2 /kg dwt during 2012, down marginally from 10.1p/kg in 2011. The average extra price paid for an R3L carcase over an O3H lamb increased substantially to 13.9p/kg in 2012 from 8.9p/kg dwt in 2011.

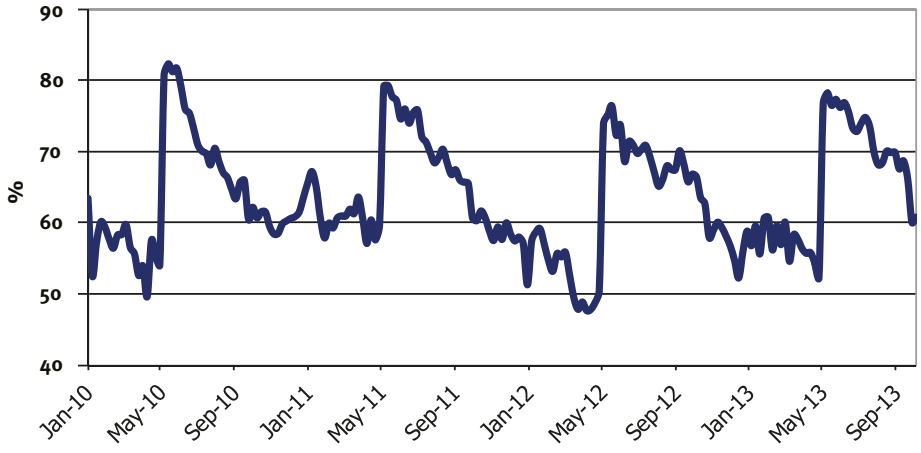
During 2012, the average carcase weight of a lamb killed at a Scottish abattoir was approximately 20kg. Consequently, a lamb that achieved a U2 grade was worth, on average, £1.84 per carcase more than a lamb graded at R3L. Lambs graded at R3L were worth £2.78 more than those achieving an O3H grade. In 2011 these premia stood at £2.03 and £1.82 respectively.

	Average U2 premium over R3L (£/head)			Average R3L premium over O3H (£/head)		
	2010	2011	2012	2010	2011	2012
Lambs	2.05	2.03	1.84	1.90	1.82	2.78

However, in late 2012 the differentials for improved quality increased as the problems of climate impacted on both lamb supplies and quality. Over the first two-thirds of 2013 the price differentials have remained at these higher levels of 11p kg dwt price improvement for a U2 over R3L and 18 p/kg dwt for an R3L over an O3H.

These figures are average variations across Great Britain, but individual processors will have different requirements, and hence different pricing structures, which may have led to deviation from these levels. Therefore, a good relationship between producer and buyer which involves regular dialogue and feedback is very important.

The following chart illustrates the seasonality of lamb quality. As the new season began in 2012, 75% of lambs at price reporting abattoirs achieved at least an R3L grading. This was further deterioration from the peak figure of 82% from the 2010 season and back at levels seen in 2008. The challenges of lamb quality and climate were apparent through the June to October period where carcase quality trailed the average for the same period of the previous year by around 1.5 percentage points; averaging just under 70%. However, as the marketing year progressed and despite the climatic challenges, lamb quality was similar to a year earlier, then quality improved at the start of the 2013 marketing season.



ESTIMATION OF NON-CASH COST OF PRODUCING CATTLE & SHEEP

The enterprise costings produced in this survey indicate the reward for the unpaid labour of those working with the herds and flocks and the reward for investing capital in an enterprise. A negative net margin indicates that there is no return for the labour and investment committed to an enterprise.

In this chapter, estimates are made of how much should be set against an enterprise if unpaid labour were to be charged for and if a return of 5% was required from the investment in livestock and running costs (but not buildings and land). The reward for investment in land and buildings can be considered to be the rental value of the land used by an enterprise. This analysis draws rental values from the Scottish Government RERAD 2013 report[1] on tenanted land. This rental value gives a measure of the opportunity cost of the land used by beef and sheep enterprises.

The value of unpaid labour is estimated using the proportion of a man-year committed to the enterprise and an average value for an hour of work. Time committed by the average farmer is drawn from the survey data, with one man-year defined as 2,200 hours of annual work[2]. One hour of labour has been valued at £14.14, an increase of one per cent on the year.

Cattle enterprises

	Unpaid labour	Return on working capital[3]	Rent of land and buildings
	p/kg liveweight sold		
Hill suckler herds	56	20	34
Upland suckler herds selling calves at weaning	47	27	10
Upland suckler herds selling yearlings	30	21	10
Lowground suckler herds	33	23	27
Rearer finisher herds	25	24	15
Cereal based store finishing	2	7	1
Forage based store finishing <22 months old	4	8	3
Forage based store finishing >22 months old	8	9	5

[1] *"Tenanted Agricultural Land in Scotland 2012" Scottish Statistical Publication June 2013*

[2] *47 hour average week, assuming five weeks of leave*

Sheep enterprises

	Unpaid labour	Return on working capital[3]	Rent of land and buildings
	p/kg liveweight sold		
Hill flocks	19	14	21
Upland flocks	28	11	6
Lowground non-LFA flocks	29	14	9
Store lamb finishers	6	8	2

[3] Return required to give a 5% return on working capital.

Total cost of producing a kilogramme of beef or sheepmeat

Adding together the value of non-cash costs and the running costs of an enterprise provides an indication of the total cost of producing a kilogramme of beef or sheep meat. However, before doing this all enterprises need to be brought to a common standard. Thus, finance charges and rents paid have been excluded from the fixed costs of the enterprises surveyed in making the following estimate. They have been replaced by the imputed value for return on working capital and rental value for the land used for the livestock enterprise.

The table on the following page summarises the cost of production for a kilogramme liveweight of beef or sheepmeat produced by the average performer among the enterprises covered by the survey.

	Repl cost	Var cost	Fixed cost	Non cash estimates			Total Cost	Selling price
				Labour	Working capital	Rental value		
	Pence per kg liveweight sold							
Sheep enterprises								
Store lambs	130	31	10	6	8	2	187	164
Hill ewe	32	68	97	19	14	21	251	166
Upland ewe	21	63	67	28	11	6	196	181
Lowland	25	65	73	29	14	9	215	195
Cattle enterprises								
Hill suckler	19	121	126	56	20	34	376	210
Upland selling at weaning	28	99	129	47	27	10	340	207
Upland selling yearlings	24	107	114	30	21	10	306	217
Non LFA suckler	27	98	91	33	23	27	299	200
Rearer finisher	19	131	102	25	24	15	316	238
Forage finisher <22 month	111	64	29	4	8	3	219	218
Forage finisher >22 month	129	57	26	8	9	5	234	206
Cereal finisher	108	61	13	2	7	1	192	203

Labour based on £14.14 per hour and 2,200 hours per man year

Rental values based on values published in Scottish Government's Tenanted Agricultural land in Scotland 2012

Working capital charged at 5%

Fixed cost adjusted for property and finance paid.

COMPARISONS WITH 2010 AND 2011

The following tables summarise and compare the results from the 2012 calf and lamb crop with those of 2010 and 2011. Analysis is based on a comparison of the average from each of the three years surveyed and does not compare an identical sample.

Cattle Enterprises

Suckler herds

- All suckler herds saw a deterioration in gross and net margins for the 2012 calf crop. This reflects the difficult farming conditions of the year which resulted in lower growth rates resulting in lighter calves for sale and, despite better per kg prices, lower revenue. Furthermore, productivity, measured as calves reared per 100 cows to the bull, was also compromised resulting in a lower quantity of livestock sold per cow in the herd.
- Despite fertiliser prices reducing over the year, all suckler enterprises faced higher forage costs. Escalating purchased feed costs in the second half of 2012 resulted in higher feed costs for those herds selling yearlings while those selling younger cattle made some savings in feed costs but this reflected in lower weights of cattle at sale. With the exception of hill herds, all the suckler herd systems faced rising veterinary costs with the upland herds also facing higher bedding costs, both elements associated with the challenges of the poor weather conditions prevalent for most of 2012.
- Fixed costs control was also challenging. Most herds say fixed costs increasing at a faster rate than the general level of agricultural input price inflation as weather induced changes to farm practices resulted in higher labour, machinery and property costs being carried by herds.

Cattle finishing

- Rearer finisher enterprises surveyed in 2012 saw useful increases in calf output as prime cattle prices increased over the year. However, herd maintenance costs eroded most of the improved prime stock price. Notwithstanding the escalation in feed prices variable costs were well controlled as greater use of forage was made resulting in only a modest increase in variable costs and limited the decline in gross margin. However, fixed cost proved harder to control increasing by 11% to result in an overall decline of £45 in the net margin per cow.
- Intensive store cattle finishers with housed cattle fed a predominately cereal diet benefitted for the increase in prime cattle prices during 2012 which more than offset the increase in feed costs and stock purchases. However, the general challenge of controlling fixed costs was sufficient to constrain improvements in net margin to £50 per animal finished.

Forage based finishing systems also benefited from increased returns from the market place but hand on most of the increased income from prime stock prices to store cattle producers resulting in little change in the net output of the enterprise. Expenditure on variable costs increased as a consequence of higher purchased feed prices and in the cost of producing forage. In combination with little change in output the increase in variable costs resulted in gross margins falling £20 per head. Increases in fixed costs further aggravated the situation and the average forage based finishers found net margins sliding into negative territory in 2012.

Sheep enterprises

LFA Sheep

- All LFA ewe flocks were impacted by declining lamb prices from late 2012. Lower lamb rearing percentages were also recorded and collectively these two elements resulted in a decline in output of more than 10%.
- Poor weather conditions led to increased feeding of concentrates, particularly among upland flocks, and cost of producing forage. There was also some increase in veterinary costs. The increase in variable costs was greater among the upland flocks than hill flocks largely because of higher lamb numbers requiring supplementary feed. Fixed costs were little different among upland flocks but did escalate slightly among hill flocks.
- The net effect of these changes in income and expenditure was for margins to fall by £17 per head among upland flocks but still remained positive. Hill flock net margin fell £9 per ewe and moved further into a loss situation than in 2011.

Lowground sheep

- Although lowground flocks achieved a positive net margin this was £20 lower than 2011 and the lowest level for three years. The reason for the decline in margins is attributable to a changed sales pattern and lower physical performance. By changing sales behaviour lowground flocks surveyed constrained both variable and fixed costs to the same levels as 2011. However, the greater proportion of store lambs sold and lower revenue from smaller prime lambs resulted in net output falling over £20 per head, and net margins likewise.

Lamb finishing

- Prime lamb prices were much lower in late 2012 and 2013 than 12 months earlier and despite selling prime lambs of similar weight store lamb finishers saw market returns fall some £10 per head, more than offsetting the decline in store lamb purchase price.
- The climatic challenges of autumn 2012 resulted in store lamb finishers using a greater quantity of more expensive purchased feeds further eroding margins where gross margins fell £10 per lamb and despite good control of fixed costs net margins became negative for the first time in three years.

Suckler herds

	Hill suckler herds			Lowland suckler herds		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
Number in sample	15	18	15	17	16	17
Avg. herd size (head)	91	75	57	62	60	82
	£ per cow					
Calf output including beef calf premium	**550.67**	**675.90**	**605.67**	**523.23**	**630.14**	**568.79**
less replacements	42.21	41.83	49.76	53.00	72.27	70.20
Net Output	**508.46**	**634.07**	**555.91**	**470.23**	**557.87**	**498.59**
Variable Costs						
Total concentrates	115.05	156.14	127.25	38.26	52.71	43.42
Other Feeds	23.23	44.54	46.34	41.78	44.14	31.70
Forage	63.27	67.57	78.63	46.64	56.46	66.86
Total Feed and Forage	*201.55*	*268.25*	*252.22*	*126.68*	*153.31*	*141.98*
Veterinary	49.27	41.04	29.70	30.11	43.90	50.06
Bedding	31.46	27.51	11.57	38.68	42.44	41.81
Other costs	22.47	17.73	28.73	27.37	21.56	22.57
Total variable costs	**304.73**	**354.53**	**322.22**	**222.84**	**261.20**	**256.42**
Gross Margin	**203.71**	**279.54**	**233.69**	**247.39**	**296.67**	**242.17**
Fixed costs	**392.65**	**374.61**	**369.24**	**326.42**	**362.62**	**373.83**
Net Margin	**(-) 188.94**	**(-) 95.07**	**(-)135.55**	**(-) 79.03**	**(-) 65.95**	**(-) 131.66**

	Hill herds			Lowland herds		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
Physical performance						
Calves born alive per 100	86	93	94	89	90	91
Calves reared per 100	84	91	89	85	88	86
Daily liveweight gain (kg)	0.97	0.95	0.98	1.16	1.17	1.08
Return per calf (£ per head)	602.88	694.72	626.64	565.27	660.50	612.00
Calf price (£ per kg lwt)	1.80	2.11	2.10	1.69	1.91	2.00
Weight per calf (kg)	334	329	298	333	345	306

	Upland suckler herds Early weaning			Upland suckler herds Late weaning		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
Number in sample	34	32	31	22	28	30
Avg. herd size (head)	102	103	104	95	109	116
	£ per cow					
Calf output incl. Beef calf premium	**473.90**	**588.04**	**564.07**	**610.88**	**726.63**	**742.74**
less replacements	58.47	66.91	71.96	55.80	64.22	78.69
Net Output	**415.43**	**521.13**	**492.11**	**555.08**	**662.41**	**664.05**
Variable Costs						
Total concentrates	47.52	62.62	47.64	73.32	89.03	118.33
Other Feeds	39.59	37.03	29.15	22.17	27.55	30.59
Forage	75.68	84.72	95.68	83.32	74.21	86.55
Total Feed and Forage	*162.79*	*184.38*	*172.47*	*178.81*	*190.79*	*235.47*
Veterinary	40.07	38.99	36.85	35.72	38.18	48.00
Bedding	26.65	18.77	21.84	22.85	26.94	37.49
Other costs	19.22	20.50	19.68	20.92	31.26	27.06
Total variable costs	**248.73**	**262.64**	**250.84**	**258.30**	**287.16**	**348.03**
Gross Margin	**166.70**	**258.49**	**241.27**	**296.78**	**375.25**	**316.03**
Fixed costs	**346.69**	**343.34**	**383.35**	**317.59**	**394.05**	**425.35**
Net Margin	**(-) 179.99**	**(-) 84.85**	**(-) 142.08**	**(-) 20.81**	**(-) 18.80**	**(-)109.32**

	Upland herds - Early weaning			Upland herds - Late weaning		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
Physical performance						
Calves born alive per 100	88	91	92	91	89	92
Calves reared per 100	85	88	86	88	86	85
Daily liveweight gain (kg)	1.06	1.14	1.05	0.98	0.97	0.90
Return per calf (£ per head)	507	614	608	657	800	825
Calf price (£ per kg lwt)	1.70	1.96	2.06	1.83	2.12	2.17
Weight per calf (kg)	299	313	295	359	378	380

	Rearer/Finishers		
	2010	**2011**	**2012**
Number in sample	21	22	22
Average herd size (head)	103	96	95
	£ per cow		
Calf output incl. Beef calf premium	**820.94**	**961.22**	**999.39**
less replacements	59.43	44.71	75.96
Net Output	**761.51**	**916.51**	**923.44**
Variable Costs			
Total concentrates	180.04	213.91	218.17
Other Feeds	50.08	60.29	48.45
Forage	94.79	106.29	115.86
Total Feed and Forage	*324.88*	*381.12*	*382.49*
Veterinary	42.25	45.87	49.64
Bedding	48.16	52.87	52.16
Other costs	45.17	44.15	41.94
Total variable costs	**460.46**	**524.00**	**526.24**
Gross Margin	**301.05**	**392.51**	**397.20**
Fixed costs	**441.37**	**437.22**	**468.03**
Net Margin	**(-) 140.32**	**(-) 44.71**	**(-) 70.83**
Physical performance			
Calves born alive per 100	88	90	94
Calves reared per 100	85	88	88
Daily liveweight gain (kg)	0.90	0.91	0.83
Return per calf (£ per head)	976	1139	1183
Sale price (pence per kg dwt)	291	330	352
Weight per calf (kg)	583	616	580

Businesses finishing cattle under cereal based and forage based systems

	Cereal based			Forage based		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
	£ per head					
Number in sample	15	15	15	35	35	36
Stock Sales	**978.78**	**1086.09**	**1229.11**	**1014.97**	**1174.01**	**1250.91**
Less stock purchases	554.44	634.13	657.38	615.87	652.28	727.49
Net Output	**424.34**	**451.96**	**571.73**	**399.10**	**521.73**	**523.42**
Variable Costs						
Concentrates	209.05	223.76	263.34	142.69	175.72	193.07
Other Feeds	19.05	27.11	22.98	22.33	35.30	21.93
Forage	8.09	7.13	7.63	27.19	46.25	52.73
Total Feed and Forage	*236.19*	*258.01*	*293.95*	*192.21*	*257.26*	*267.74*
Veterinary	10.64	11.17	12.93	9.27	9.83	13.25
Bedding	35.85	30.69	30.69	25.44	31.03	32.23
Other Costs	26.62	23.24	35.10	40.38	33.51	39.49
Total variable costs	**309.30**	**323.10**	**372.68**	**267.30**	**331.63**	**352.80**
Gross Margin	**115.04**	**128.86**	**199.05**	**131.80**	**190.09**	**170.62**
Fixed Costs	**64.87**	**72.33**	**92.02**	**180.99**	**176.51**	**198.95**
Net Margin	**50.17**	**56.52**	**107.03**	**(-)49.19**	**13.58**	**(-)28.33**
Physical performance						
Feeding period (days)	206	217	243	334	333	368
Start Wt (kg lwt)	325	340	289	345	358	355
Average carcase weight (kg dwt)	339	343	353	341	345	377
Daily LWT gain (kg)	1.2	1.2	1.3	0.76	0.77	0.81
Mortality (%)	0.5	0	0.1	0.5	0.1	0.4
Sale price (£ per kg dwt)	2.94	3.17	3.51	2.92	3.39	3.64
Purchase price (£ per kg lwt)	1.70	1.86	2.27	1.77	1.83	2.18
Gross Margin per day (£ per day of feeding period)	0.56	0.59	0.82	0.39	0.57	0.46

Results from LFA sheep flocks

	LFA Upland Sheep Flocks			LFA Hill Sheep Flocks		
	2010	**2011**	**2012**	**2010**	**2011**	**2012**
	£ per ewe					
Number in Sample	29	33	32	23	21	26
Lamb sales	**103.42**	**118.73**	**103.46**	**59.28**	**64.85**	**59.48**
Wool	1.58	2.95	3.50	1.05	2.24	2.38
Gross Output	**105.00**	**121.68**	**106.96**	**60.33**	**67.08**	**61.86**
less replacement costs	9.00	11.03	11.93	9.84	10.21	11.34
Net Output	**96.00**	**110.65**	**95.03**	**50.49**	**56.88**	**50.52**
Variable costs						
Concentrates	9.38	9.85	12.26	5.35	7.38	6.89
Forage cost	5.10	6.33	7.71	1.41	2.72	3.78
Roughages	1.47	1.79	1.55	2.44	1.09	1.90
Total feed and forage	*15.95*	*17.98*	*21.52*	*9.20*	*11.19*	*12.57*
Bedding	0.77	0.89	0.64	0.15	0.18	0.14
Veterinary	6.03	7.24	7.62	4.81	5.93	6.21
Other costs	6.07	7.06	6.40	7.52	6.28	5.51
Total variable costs	**28.82**	**33.17**	**36.17**	**21.68**	**23.58**	**24.43**
Gross margin	**67.18**	**77.48**	**58.86**	**28.81**	**33.30**	**26.09**
Fixed costs	**44.92**	**46.66**	**45.60**	**35.13**	**36.52**	**38.85**
Net Margin	**22.26**	**30.82**	**13.26**	**(-) 6.32**	**(-) 3.22**	**(-) 12.77**
Physical Performance	**LFA Upland Sheep Flocks**			**LFA Hill Sheep Flocks**		
Average no. ewes	568	566	616	750	605	706
Lambs born/100 ewes	161	168	159	106	111	116
Lambs died/100 ewes	6	15	16	7	11	17
Lambs reared/100 ewes	155	153	143	99	100	99
Lambs sold/retained:						
Slaughter %	66	62	64	25	31	26
Stores %	18	22	19	40	33	40
Breeding %	16	16	17	34	36	34
Return per lamb sold finished (£)	68.89	78.75	71.99	69.23	72.33	63.46
Carcase weight lambs sold finished (kg)	19.6	19.9	19.6	18.9	18.1	19.8
Return per lamb sold store (£)	60.61	67.00	64.40	47.44	48.90	42.79

Results from Lowground sheep flocks

	2010	2011	2012
		£ per ewe	
Number in Sample	16	12	12
Lamb sales	**103.38**	**119.01**	**96.03**
Wool	1.41	2.52	2.97
Gross Output	**104.79**	**121.52**	**99.00**
less replacement costs	9.96	12.60	12.41
Net Output	**94.83**	**108.93**	**86.59**
Variable costs			
Concentrates	9.61	9.63	9.07
Forage cost	7.41	4.44	6.71
Roughages	2.74	3.05	1.34
Total feed and forage	*19.76*	*17.12*	*17.10*
Bedding	0.88	1.57	1.19
Veterinary	5.80	7.08	5.97
Other costs	6.59	8.33	7.53
Total variable costs	**33.03**	**34.10**	**31.79**
Gross margin	**61.80**	**74.83**	**54.80**
Fixed Costs	**44.89**	**46.74**	**46.03**
Net Margin	**16.91**	**28.09**	**8.77**
Physical performance			
Average no. ewes	425	382	348
Lambs born per 100 ewes	154	170	150
Lambs died per 100 ewes	12	24	16
Lambs reared per 100 ewes	145	146	134
Lambs sold/retained:			
Slaughter %	72	82	64
Stores %	18	4	21
Breeding %	10	14	15
Return per lamb sold finished (£)	71.42	79.39	73.76
Carcase weight lambs sold finished (kg)	20.7	20.3	17.5
Return per lamb sold store (£)	64.97	74.97	36.43

Store lamb finishing

	2010	2011	2012
	£ per lamb		
Number in sample	12	12	13
Lamb sales	**73.52**	**75.45**	**64.99**
less store lamb purchase costs	55.76	54.62	51.38
Output	**17.76**	**20.83**	**13.61**
Concentrates	2.40	2.24	5.85
Other feed	0.23	0.12	0.18
Forage	1.09	1.78	0.93
Total feed and forage	*3.73*	*4.15*	*6.97*
Bedding	0.10	0.01	0.14
Veterinary	1.44	0.90	0.77
Other costs	3.43	3.89	4.57
Total variable costs	**8.70**	**8.95**	**12.45**
Gross margin	**9.06**	**11.88**	**1.15**
Fixed costs	**5.45**	**5.40**	**4.64**
Net Margin	**3.61**	**6.48**	**(-) 3.49**
Physical performance			
Feeding period (days)	107	102	100
Liveweight at start (kg)	32.3	30.5	32.6
Liveweight at finish (kg)	41.4	39.1	39.5
Mortality (%)	2	2.5	2
Concentrates (kg)	11	10	21
Average carcase weight (kg dwt)	19.5	18.4	2

GLOSSARY

Output: Income to the enterprise after deducting the cost of maintaining the breeding flock or purchasing store livestock and after valuation changes.

Variable costs: Costs which vary directly with the size of production of the enterprise and which can be easily allocated to an enterprise.

Gross margin: The surplus income left over after deducting variable costs from output. It is the contribution of the enterprise towards covering the farmer's fixed costs and overheads, rewarding the owner of the business for their work and capital investment.

Fixed costs: Costs reflecting the overall running of the business, but cannot be easily allocated to an enterprise because in many cases they are shared costs. In this analysis they have been broken down into the following categories:

Labour costs: All paid labour including regular wages, contract labour and casual wages.

Power & machinery: Machinery repairs; fuel; electricity; hire charges; tax and insurance.

Property maintenance & rent: Farm and property repairs; council taxes and water charges; rent and grazing lets.

Depreciation: Machinery and property depreciation charges

Finance: Bank and loan interest and charges

Administration: Insurance; professional fees; miscellaneous expenses.

Contractors: Contract labour and service charges.

Net margin: The surplus income left after deducting all costs from the output. It is the contribution the enterprise makes to cover the cost of unpaid family labour and to reward the owner for their investment in the enterprise.

Working capital: The sum of money tied up in productive livestock and the average capital needed to finance the annual costs of running the business; the latter estimated to be half of the total variable and fixed costs for the year.

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