Cattle and Sheep Enterprise Profitability in Scotland

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EXECUTIVE SUMMARY

- This report on enterprise profitability covers the 2014 calf and lamb crop. This production year was characterised by much improved weather conditions when compared to 2013. Consequently calving and lambing was a more positive period than in 2013 and mortality rates at birth were much reduced, while among sheep flocks ewe prolificacy was much improved. Additionally, feed and forage was in much better supply and animals thrived better than in 2013 and the increased availability of feed and forage contributed to animals generally being sold at higher weights.
- However, prime cattle prices were much lower than in 2013 and prime sheep prices were also lower until early 2015. Store cattle and lamb prices did, though, match year earlier levels at the main autumn sales. Consequently, those selling significant quantities of prime cattle struggled to match the income from the market place that they had achieved last year, while those selling store cattle were more able to achieve some modest improvement. The general improvement in ewe prolificacy meant that sheep enterprises were more likely to see improved physical and financial output than cattle enterprises.
- Nevertheless, despite generally lower costs of feed and forage, largely due to lower purchased feed requirement and lower purchased feed costs, other costs continued to increase. Cattle producers selling prime stock in particular found it difficult to recoup this extra cost from the marketplace. Only 29% of store cattle finishers achieved a positive net margin, down from 72% last year, while among rearer-finishers the number achieving positive margins halved in comparison to last year. Even for store cattle producers, where sale prices were similar to a year earlier, the more extensive units struggled to maintain margins, although overall one third of those selling store cattle achieving a positive net margin the same as last year.
- In contrast margins improved among ewe flocks. Indeed, the proportion of hill ewe flocks making a positive net margin lifted from 10% in 2013 to 15% in 2014; though this was still down on 19% in 2012 and 57% back in the 2011 lamb crop year. Meanwhile, 68% percent of upland flocks recorded a positive net margin, well above the 45% figure for the previous two years. However, among lowground flocks, the proportion achieving a positive net margin fell back from 83% in 2013 to 75% in 2014. For store lamb finishers, the proportion achieving a positive net margin held relatively steady at 75%. Nevertheless, outwith lowground ewe systems, 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.
- 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 gross margin per animal achieved higher output through higher calf rearing percentages, combined with selling heavier calves resulting in higher yield per cow in the herd. They also typically received 6-10p/kg lwt more for the calves they sold.

- Suckler herds in the top third of financial performance were also characterised by strong variable cost control. Those in the top third had lower total variable costs than the average while achieving higher output. In all cases variable costs per kg of calf reared were lower among the top third. 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 better stock performance. Typically they reared about 7-15 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 5 kg lwt more lamb per ewe. They also typically sold the highest proportion of lambs for immediate slaughter. The net effect of this was that income per ewe from lamb sales was £13 -£14 per ewe more than the average.
- The LFA hill suckler herds surveyed had an average gross margin of £219 per cow. The top-third averaged £351 per cow gross margin, an improvement over the average of £130 per cow. The top-third achieved a net margin of (-)£70 per cow against the average of (-)£180. Of the 16 producers surveyed only one achieved a positive net margin, a decline on last year 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 £312 per cow, but were outperformed by their counterparts selling yearlings who achieved an average gross margin of £398 per head. Top third producers selling at weaning made £422 gross margin per cow with 9% more liveweight produced per cow than the average while at the same time keeping variable costs 13% lower. Of those selling yearlings, the top-third achieved a gross margin of £565 per cow. Again variable costs were strictly controlled and compared to the average were 6% lower while still producing 8% more liveweight per cow. Twenty seven percent of businesses selling calves at weaning achieved a positive net margin down from 30% last year. In contrast, the proportion of those selling yearlings that achieved a positive net margin was unchanged at 33%.
- Non-LFA suckler herds reported an average gross margin of £397 per cow while those in the top-third achieved a gross margin of £570. A significant contributor to this improvement was the 25% greater sale weight per cow. Forty percent of businesses surveyed achieved a positive net margin.
- Rearer-finisher businesses surveyed, recorded an average gross margin of £381 per cow with the top-third averaging £543 both considerably down on the year. The average net margin remained negative at (-)£217. Seventeen percent of the businesses surveyed achieved a positive net margin, half the rate of last year. Rearer–finisher businesses surveyed recorded an average gross margin of £501 per cow with the top-third averaging £678. However, the average net margin remained negative at (-)£66 but improved £5 over the year. Thirty-seven percent of the businesses surveyed achieved a positive net margin, double the rate of last year.
- Cereal-based cattle finishers surveyed reported a decline in an average gross margin

from last year to £170 per beast and a net margin of £55. Those in the top-third achieved an £100 improvement in net margin over the average. Indeed 73% of businesses in the survey reported a positive net margin.

- 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 £76 per beast and reported a net margin of (-)£126. Those selling older cattle achieved a gross margin of £69 per head and net margin of (-)£203. Both groups were badly affected by falling primestock markets while having paid more to buy store calves; output then was lower than last year. Ten percent of those selling younger cattle achieved a positive net margin compared to none of those selling the older cattle.
- Hill flocks reported considerable improvement in ewe productivity from the depressed levels of the 2013 lamb crop. A lower level of ewe replacement and some improvement in store lamb returns led to some growth in output. Variable costs benefited from savings in feed and forage costs but overall were little changed. Fixed costs however increased and as a consequence gross margins improved to £19.60 per ewe but net margin were little changed at (-) £22. The top-third benefited from higher prolificacy and lamb weights resulting in a net output £14 per ewe higher than the average, with variable costs £4 per ewe less this improved productivity transferred into a gross margin £18 per ewe better. However, despite this improved position the top-third still reported a negative gross margin of (-)£3 per ewe. Fifteen percent of these businesses achieved a positive margin, a small improvement on last year.
- Around two-thirds of upland ewe enterprises surveyed reported a positive net margin with an average of £8 per ewe across the whole sample. However, those in the top-third achieved a net margin of £21 per ewe slightly down on last year. An improvement in average ewe productivity and an ability to sell a higher proportion of prime lambs contributed to the improved margins. Better weather conditions and falling fertiliser costs allowed savings in variable costs to be made. There was also some small reduction in fixed costs.
- Lowground breeding ewe businesses reported ewe productivity little changed from last year. Although prime lamb prices started the 2014 lamb crop year higher than last year they fell below year earlier levels from late summer to early winter. Consequently for low ground producers market returns only dipped slightly. As with other enterprises the improved weather and falling input costs led to lower variable costs than last year although fixed costs did increase. Nevertheless, margins improved and 75% of those surveyed achieved a positive margin.
- Store lamb producers achieved an average gross margin per lamb sold of £10, an improvement on the year. Although prime lamb prices were firm in late 2014 and early 2015, lower carcase weights resulted in lower market returns. However, by selling smaller prime lambs savings were made in variable costs which led to the improvement in gross margin. Fixed costs did show some increase but, nonetheless, net margins improved to £6 per lamb sold.

INTRODUCTION

This report summarises the results of a survey of Scottish beef and sheep enterprise profitability during the 2014 calf and lamb crop year. The survey was commissioned by Quality Meat Scotland and carried out by SAC Consulting, part of SRUC.

The survey covers 70 breeding ewe enterprises farming 44,600 ewes and 111 suckler enterprises farming 11,138 suckler cows, 12 enterprises finishing just over 8,000 store lambs and 55 cattle finishing enterprises selling 3,960 prime cattle. The survey provides a snapshot of the industry during 2014. 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 2012 and 2013. 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 their 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 5% 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

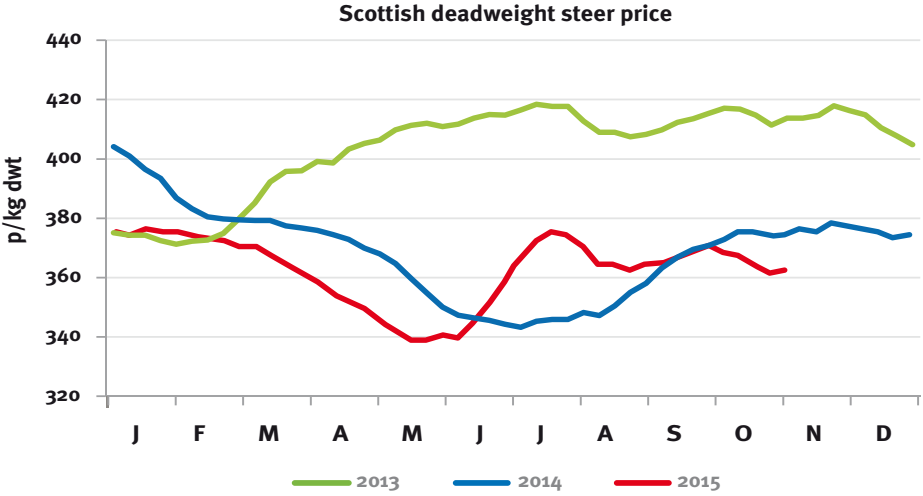
means that any survey of businesses cannot cover all options. However, results are presented for a comprehensive range of enterprise types, namely:

- 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; and
- 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.

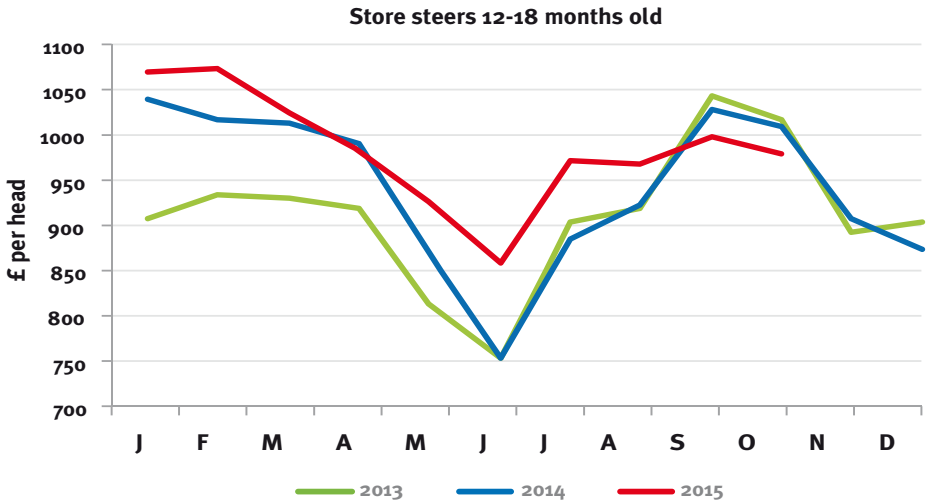
Cost Price Changes During 2014

Ex-farm cattle prices began 2014 29p/kg (8%) higher than a year earlier with the average steer selling at 404p/kg dwt. However, the downwards trend that had begun in late November 2013 continued throughout most of the first half of 2014, with only a brief pause between mid-February and mid-March. The declines eventually began to slow in June, and the average steer price reached its annual low of 343p/kg in the first week of July. Thereafter, prices recovered slowly through the rest of July and into August, before a seasonal upturn began towards the end of August and carried on through September. The market then stabilised in October, holding close to the 375p/kg mark during the final quarter of the year, although there was a short-lived lift toward 380p/kg during November as processors sought out the best quality cattle to meet festive demand. In the final week of the year, the average steer price stood at 374p/kg; down 30p on the first week of 2014. At 369p/kg, the annual average steer price was 34p (8.5%) lower than in 2013.

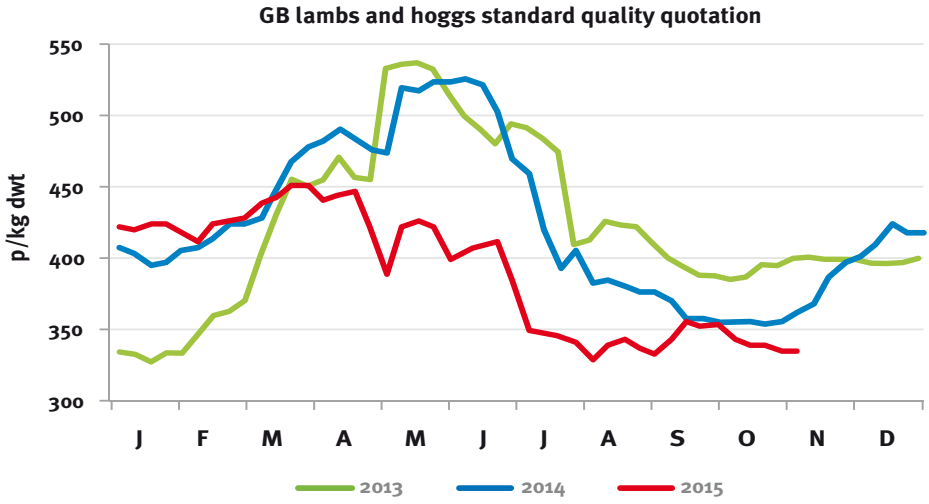


Prime cattle producer prices may have started the year well ahead of 2013 levels, but the gap quickly eroded and had moved into negative territory by the end of February. From this point on, prices consistently trailed their year-earlier level. At its widest in June and July, prices were 16–17% down on 2013. Even after the price increases of August and September, prices held around 8–10% lower through the final quarter.

Store cattle prices opened 2014 ahead of the previous year's levels, and it stayed this way right through to the summer. Thereafter, prices moved closely in line with year-earlier levels. For a 12–18-month old store steer, prices were slightly lower at their seasonal peak in September 2014 than they had been in the same month of 2013, trading down by 1.5%. In the year as a whole, prices averaged 3% higher than they had in 2013, with 7% fewer 12–18 month old stores traded. However, in the 6–12 month age band, though numbers were little different, the annual average price was 6% higher.

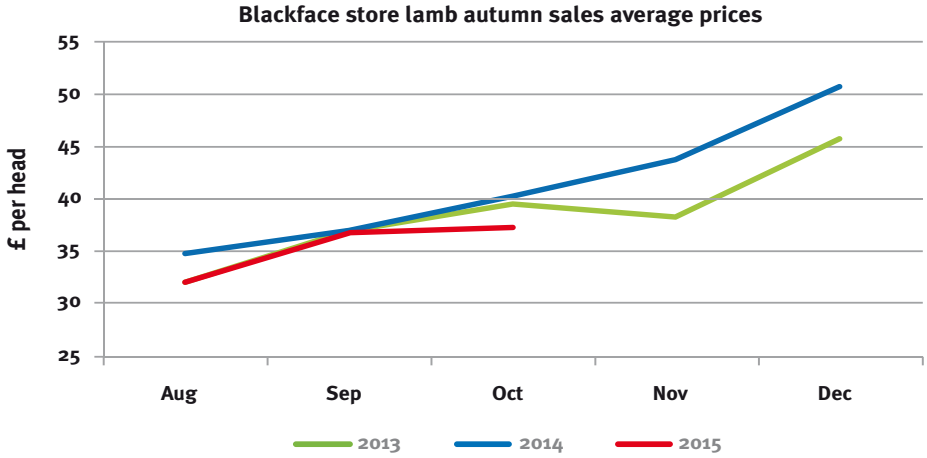


At price-reporting abattoirs in GB, prime sheep producer prices opened 2014 at 406p/kg dwt. This was up by more than 60p on the beginning of 2013 – an increase of 24%. After lacking direction for six weeks, the traditional seasonal upturn kicked in, with prices rising steadily until mid-April when they reached 490p/kg as demand peaked ahead of Easter. Following a brief dip, the new season then began, but prices were unable to match their 2013 maximum, falling 12p (2%) short at 525p/kg. After a stabilisation, the market cooled sharply once the Islamic Festival of Ramadan had begun in late June and supplies began to build. By mid-July, the rate of declines had eased, though the downward trend continued until supplies peaked in late September. Prices then settled around the 350p/kg level through October, before a strong seasonal upturn commenced.

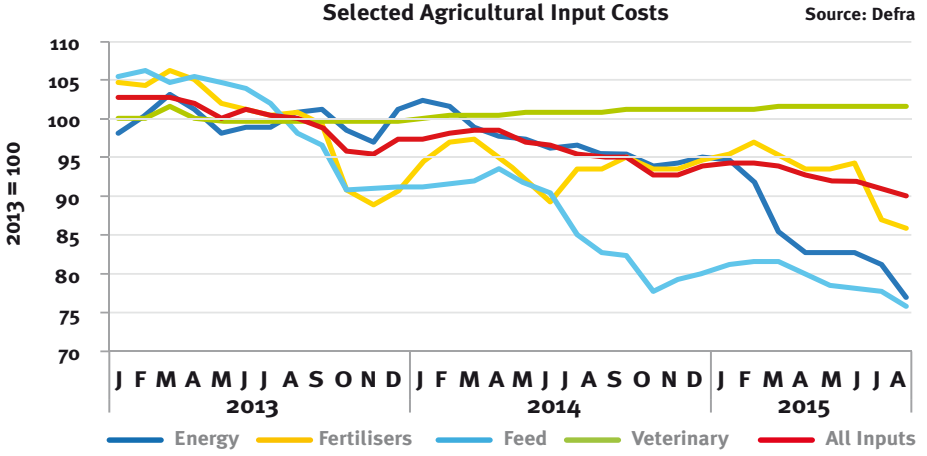


This saw prices pass the 400p/kg mark in early December, before settling around 420p/kg in the final three weeks of the year.

Despite spending most of 2014 at a significantly different level from the same week of 2013, the annual average deadweight prime sheep price was unchanged from the previous year at 411p/kg.



Store lamb prices trended higher through the autumn of 2014 and finished the year on a stronger footing than in 2013, possibly a reflection of rising prices for finished sheep. This meant that having run close to 2013 levels in September and October, prices for Blackface store lambs averaged 14% above year-earlier levels in November and 12% higher in December. This was despite marketings rising by 6% year-on-year in November and by 36% in December.



Having risen by 12% in 2013 to reach £38 a head, the average Blackface store lamb sold for nearly £40 in the autumn of 2014; a further gain of 4% for producers. With 16% more Blackface store lambs sold, this suggests firm demand from finishers.

A second successive year of sharply declining input costs for farmers took the average input cost to a four-year low. The declines were primarily down to lower feed costs, which were pulled down by a second consecutive strong global harvest. Feed costs began 2014 on a downward trend, due to a good harvest in 2013, and the price falls picked up through the spring as industry analysts began to expect another strong harvest. Once higher production materialised, prices fell sharply in the third quarter, before edging higher towards the year-end. There was also a downwards trend for energy costs in 2014 early in the year. This was due to gas and electricity prices trailing 2013 levels, but then the fall in oil prices in the second half of the year maintained the pressure on energy prices. By contrast, fertiliser costs were more stable in 2014, having declined between the second half of 2011 and the end of 2013. This suggests that the market found a new balance.

2015 Prospects

Since the survey data was collected in the spring of 2015, there have been some changes in the marketplace. Cattle supplies have tightened with fewer prime cattle reaching abattoirs throughout much of 2015, more than offsetting a further increase in carcase weights. In addition, supplies have also fallen in Ireland, leading to slightly lower imports, while the export trade has been pressurised by a stronger sterling against the euro. The sum of these factors had been to clear the previous build-up of product in cold stores, returning producer prices to year-earlier levels, following significant volatility in the spring and summer. However, the market cooled again in October, despite supplies continuing to run behind 2014 levels, reflecting weaker demand. Despite the fall in prices for finished cattle in the spring, the store trade has been buoyant for much of 2015. However, there were some signs of a rebalancing of store prices in late September.

On the sheep side, producer prices began 2015 on a strong footing, but fell behind 2014 levels in March and have remained significantly lower for most of the time since. In particular, the traditional price spike at the beginning of the season in May failed to materialise due to a long tail of hoggs while new season supplies were strong, despite both Scottish and English June census figures indicating a smaller lamb crop. This saw prices trail 2014 levels by up to a quarter throughout May and June. Since July, prices have generally run 10% behind last year, though the gap did close in the run-up to the Islamic Festival of Eid al Adha in late September. In addition to increased lamb slaughterings between June and September, supplies have also been underpinned by a fall in export demand, which has kept a greater proportion of home-killed product on the UK market. This has been down to both the rise in value of sterling against the euro, and a sharp reduction in demand from Hong Kong for low value cuts with little or no value in the home market.

The momentum gained in the domestic economy in the second half of 2013 and through 2014 has been carried into 2015, and the UK economy has been growing at a solid pace. Wage growth has firmed, unemployment has continued to decline and inflation has fallen to around zero, boosting consumer purchasing power. In turn, consumer confidence has held around its highest levels for a number of years. However, although consumer spending has been growing strongly, it has been household goods, technology, leisure and the foodservice sector that have seen most of the benefit, with little growth in beef sales and declines for lamb. Indeed, the volume of beef retailed in GB was up only slightly year-on-year in the 12 weeks to mid-September, as better sales of steaks and roasts were almost cancelled out by weaker sales of stewing beef and mince. In the recent past, flat volumes would have meant a significant rise in spending on beef, but in 2015, overall spending and retail prices have also steadied. On the lamb side, sales of roasting joints and steaks have disappointed, but there has been strong growth in sales of lamb mince, from a low base. In terms of exports, the potential lift in demand from the Euro Area economy finally showing signs of recovery has been offset by a stronger sterling.

Input costs have continued to trend lower in 2015. Having stabilised last year, fertiliser prices have taken a renewed tumble, most likely due to the fall in mineral prices at the global level as Chinese demand has fallen sharply. Similarly, energy has become cheaper this year as the oil price decline has become more prolonged than had been anticipated, leading to a greater degree of pass-through into the cost of electricity, gas and fuels. On the feed side, there appears to have been a third consecutive strong harvest at a global level, placing further pressure on prices. However, in certain parts of Scotland, such as Orkney and Caithness, weather conditions have made it a difficult year, raising feed requirements while at the same time reducing feed availability. As a result, margins will have been squeezed.

Overall, positive developments on the input side are unlikely to have been significant enough to cancel out lower average farmgate prices for sheep producers. However, it should be noted that further increases to carcase weights mean that revenues per head will not have fallen to the same degree as per kilo prices. In addition, lambing performance and mortality rates are likely to have improved. For cattle finishers, it is possible that higher carcase weights and lower input costs will have helped offset the pressure from a slight fall in average farmgate prices and higher store prices. For the store producer, it is likely that the combination of improved calving and mortality rates coupled with strong store cattle prices will have underpinned margins.

As is always the case, profitability will also have been linked to the timing of sales and input purchases. For cattle, at certain points of the year prices have been above 2014 levels and at other times much lower. Store cattle buyers who purchased short-keep cattle in the third quarter of last year are likely to have been particularly hard hit given the way prime cattle prices fell through the first half of 2015. For sheep producers, timing will have been particularly key due to the volatility of prices from week to week, though overall, producers are likely to have struggled to match last year's returns.

Structural Changes in 2014

Among the suckler herds surveyed, 29% increased cow numbers by more than 5% while a further 29% reduced cow numbers by more than 5%. Overall the number of cows farmed by those in the survey increased by 0.5% in contrast to a national decline of 1.3% reported in the Scottish agricultural census of December 2014. Among the farm types surveyed, the largest decline in cow numbers occurred among hill suckler herds where cow numbers fell by 1%. In contrast, there were modest increases among suckler herds selling yearlings and lowground herds.

With regard to breeding sheep enterprises, the total number of ewes farmed by those in the survey increased by 2.9%, in contrast to the 3.6% increase reported in the national flock in the December 2014 Scottish agricultural census. All flock types recorded some increase, with the biggest proportional increase in ewe numbers occurring among upland flocks while the smallest increases occurred among lowground flocks. Thirty-one percent of flocks increased in size by more than 5% while 24% of surveyed businesses reduced flocks by more than 5%.

CATTLE ENTERPRISES

Results from LFA hill suckler herds

The 16 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 22 to 120 cows, with an average size of 54 head.

- Hill suckler herds achieved an average gross margin of £219 per cow. The top third achieved an average gross margin of £351, 60% better than the average and four times the level among the bottom third.

- Fixed costs averaged £399 per cow, but with a considerable variation from £126 to £559 per cow. This resulted in an average net margin of (-)£180 per cow while the top third achieved a net margin of (-)£70. Only one enterprise in the survey achieved a positive net margin.

- Although the top third reared four more calves per 100 cows, they sold them at lower weights than the average. Nevertheless, the value of the calf output among the top third was 4.4% higher than the average, a combination of 3.5% more kg reared per cow and a higher sale price. This gap widened to 11% over the bottom third, as bottom-third producers had even lower production and prices than the top third. Through lower cow mortality and a lower overall replacement rate, top-third producers also had lower herd maintenance charges, leading to a net output 6% higher than the average and 15% higher than the bottom third.

- Top-third producers also had strong control over variable costs, although their fixed costs were higher than both the average and bottom third, particularly through higher paid labour and contractor charges, despite these being offset slightly by lower power and machinery costs and lower depreciation charges. However, top-third producers made less use of unpaid family labour.

LFA hill suckler herds – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	16	5
Average herd size (head)	59	54	65
		£ per cow	
Calf output after valuation changes	575.57	613.41	640.26
Subsidies	53.14	53.54	52.68
Gross Output	**628.72**	**666.95**	**692.95**
Less replacements	80.97	74.76	64.55
Net Output	**547.74**	**592.19**	**628.40**
Variable Costs			
Purchased concentrates	114.45	106.32	94.15
Home-grown concentrates	0	0	0
Roughages purchased	102.58	62.15	21.19
Forage	112.06	104.43	90.16
Total feed and forage	*329.10*	*272.90*	*205.51*
Veterinary	56.70	37.16	21.86
Bedding	32.74	26.27	26.75
Other costs	44.28	36.50	23.14
Total Variable Costs	**462.81**	**372.83**	**277.26**
Gross Margin	**84.93**	**219.36**	**351.14**
Fixed Costs			
Labour	56.99	69.71	100.99
Contractors	6.21	14.08	21.42
Power and machinery	117.44	110.93	92.15
Property maintenance and rent	81.04	85.06	85.19
Depreciation	78.73	69.06	70.67
Finance	3.88	9.23	8.11
Administration	37.80	41.56	42.85
Total Fixed Costs	**382.08**	**399.64**	**421.38**
Net Margin	**(-)297.15**	**(-)180.28**	**(-)70.25**
Annual herd maintenance cost – pence per kg calf produced	32	28	24
Variable cost – pence per kg calf produced	180	142	102
Fixed cost – pence per kg calf produced	149	153	155
Unpaid family labour hours	23hrs 40m	16hrs 00m	9hrs 40m

Totals may not add up due to rounding

LFA hill suckler herds – technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	30	31	32
Calves born dead or alive per 100 cows	95	94	96
Calves born dead per 100 cows	3	4	3
Calves died before weaning per 100 cows	3	2	1
Calves reared per 100 cows	89	88	92
Daily liveweight gain (kg)	0.89	0.92	0.94
Weight – kg per calf sold	290	299	296
Weight produced kg per cow	257	262	271
Cow replacement rate per 100 cows	9	11	9
Cow mortality %	2	2.3	1.8
Purchased concentrates – kg per cow	542	454	354
Home-grown concentrates – kg per cow	0	0	0
Stocking rate GLU/ha	0.18	0.16	0.11

Figures may not tally 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 old. 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 30 herds in this category farmed 3,509 cows, an average herd size of 117 cows within a range from 23 to 291 cows, and reported an average gross margin of £313 per cow and a net margin of (-)£110 per cow. The top third of enterprises returned a gross margin of £422 per cow, £110 (35%) better than the average and £200 per cow better than the bottom third. Top-third producers reported a net margin of £22, £131 per head better than the average. One quarter of businesses reported a positive net margin.

- Top-third producers produced 24kg more calf weight per cow than the average and 43kg more than the bottom third. This was achieved through a combination of factors:
  - Higher calving percentages – 91 calves reared per 100 cows (three more than the average).
  - 17 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 14% lower among the top third than the average.
- Fixed costs per cow among the top third were lower than the average with particular strong control over paid labour and power and machinery costs. Some of the saving in paid labour was the result of higher unpaid labour commitment to the enterprise than the average.

Upland herds selling calves at around one year old

Twenty-five herds farming an average of 106 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 384kg, some 28% 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 34%. However, when considered against the weight of animal sold, rather than per cow, the variable costs among this group were 2.5% 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 26% 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 2014 averaged 242 p/kg lwt, some 3.5% lower than last year, while those selling older calves in early 2015 averaged 237 p/kg, unchanged on the year.

Fixed costs, however, were 8% higher among this group compared to those selling younger cattle, due particularly to higher power and machinery, administration and finance costs. As a result, the £86 per cow improvement in gross margin was eroded to a point where the net margin among those selling yearling stores was only £50 per cow better than those selling weaned calves.

- Top-third businesses selling yearlings returned a gross margin of £565 per cow, £167 (42%) better than the average and £274 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. They sold these calves at a slightly higher weight, resulting in the yield per cow in the herd being 8% higher than the group average.
- Top-third producers fed 8% more grains and concentrates than the average, but by making greater use of home-grown grains did not see feed and forage costs materially different from the average. In contrast, bottom-third producers incurred higher feed and forage costs – not because they used more feed, but because they had greater requirement to buy in feed.
- Top-third producers had a smaller fixed cost burden compared to the average, largely as a result of substituting unpaid family labour for paid labour and contractors. 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, seven of the eight businesses in the top third achieved a positive net margin.

Over the year, 28% of those businesses selling yearling calves reduced their herd size while 37% those selling weaned calves reduced herd size.

Extensive upland suckler herds selling weaned calves
Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	10	30	10
Average herd size (head)	115	117	99
		£ per cow	
Calf output after valuation changes	593.25	641.60	697.75
Subsidies	45.44	46.31	49.11
Gross Output	**638.69**	**687.91**	**746.86**
Less net replacement cost	76.29	87.78	78.68
Net Output	**562.40**	**600.13**	**668.18**
Variable Costs			
Purchased concentrates	40.90	25.14	22.96
Home grown concentrates	23.42	19.90	12.35
Roughages purchased	50.65	42.22	39.53
Forage	117.85	97.76	79.01
Total feed and forage	*232.82*	*185.02*	*153.86*
Veterinary	53.93	49.53	40.31
Bedding	35.24	34.50	33.38
Other costs	22.25	18.19	18.47
Total Variable Costs	**344.25**	**287.23**	**246.01**
Gross Margin	**218.16**	**312.90**	**422.17**
Fixed Costs			
Labour	78.80	86.37	43.80
Contractors	39.00	37.46	37.59
Power and machinery	104.06	101.28	95.62
Property maintenance and rent	87.15	83.06	90.00
Depreciation	58.14	73.03	85.69
Finance	11.04	16.68	23.44
Administration	18.76	24.65	24.33
Total Fixed Costs	**396.94**	**422.48**	**400.49**
Net Margin	**(-)178.79**	**(-)109.58**	**21.69**
Annual herd maintenance cost pence per kg calf produced	31	33	27
Variable cost – pence per kg calf produced	140	109	85
Fixed cost – pence per kg calf produced	162	160	139
Unpaid family labour hours	8hrs 00m	8hrs 25m	10hrs 55m

Totals may not add up due to rounding

Extensive upland suckler herds selling weaned calves
Technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	25	27	27
Calves born dead or alive per 100 cows	93	95	97
Calves born dead per 100 cows	4	4	3
Calves died per 100 cows	3	3	3
Calves reared per 100 cows	86	88	91
Daily liveweight gain (kg)	1.10	1.06	1.07
Weight – kg per calf sold	285	300	317
Weight produced – kg per cow	245	264	288
Cow replacement rate per 100 cows	16	15	15
Cow mortality %	2.7	2.25	1.25
Purchased concentrates – kg per cow	225	124	105
Home-grown concentrates – kg per cow	181	151	90
Stocking rate GLU/ha	1	1	0.95

Totals may not add up due to rounding

Upland suckler herds selling yearling calves
Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	8	25	8
Average herd size (head)	114	106	74
		£ per cow	
Calf output after valuation changes	717.93	795.44	934.43
Subsidies	43.19	45.90	50.98
Gross Output	**761.13**	**841.34**	**985.41**
Less net replacement cost	90.05	86.81	87.15
Net Output	**671.08**	**754.52**	**898.26**
Variable Costs			
Purchased concentrates	96.82	83.58	82.06
Home-grown concentrates	8.14	16.50	30.01
Roughages purchased	40.35	39.84	28.15
Forage	98.57	95.75	95.56
Total feed and forage	*243.87*	*235.67*	*235.79*
Veterinary	48.49	44.26	33.21
Bedding	60.66	51.50	35.27
Other costs	26.44	24.46	28.24
Total Variable Costs	**379.46**	**355.89**	**332.51**
Gross Margin	**291.62**	**398.63**	**565.74**
Fixed Costs			
Labour	84.69	78.31	36.40
Contractors	42.11	33.06	13.62
Power and machinery	121.38	113.08	118.24
Property maintenance and rent	79.20	82.14	82.13
Depreciation	71.13	83.01	96.24
Finance	27.78	35.64	37.92
Administration	24.02	31.77	26.36
Total Fixed Costs	**450.31**	**457.02**	**410.91**
Net Margin	**(-)158.69**	**(-)58.39**	**154.83**
Annual herd maintenance cost – pence per kg calf produced	30	26	24
Variable cost – pence per kg calf produced	126	106	92
Fixed cost – pence per kg calf produced	150	136	114
Unpaid family labour hours	14hrs 45m	13hrs 10m	20hrs 20m

Totals may not add up due to rounding

Upland suckler herds selling yearling calves
Technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	27	26	33
Calves born dead or alive per 100 cows	93	94	96
Calves born dead per 100 cows	5	4	3
Calves died per 100 cows	4	3	2
Calves reared per 100 cows	84	87	91
Daily liveweight gain (kg)	0.94	0.94	0.94
Weight – kg per calf sold	360	384	398
Weight produced – kg per cow	300	335	362
Cow replacement rate per 100 cows	15	12	14
Cow mortality %	1.9	1.8	1.9
Purchased concentrates – kg per cow	485	422	343
Home-grown concentrates – kg per cow	65	139	263
Stocking rate GLU/ha	0.53	0.77	1.11

Results from non-LFA lowground suckler herds

Seventeen non-LFA suckler enterprises farming 1,536 cows were surveyed. They achieved an average gross margin of £398 per cow and an average net margin of (-)£34 in a range from (-)£489 to +£279. Seven businesses reported a positive net margin per cow.

- Top-third producers achieved an average gross margin of £570 per cow, £173 (43%) better than the overall average. Fixed costs per cow among the top third were £24 per cow higher than the average and thus the improvement in financial performance diminished to £149 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 – 71 kg per head heavier at sale than the average;
  - Higher average sale prices.
- These elements combined to result in gross output of £231 per cow higher than the average.
- This improved output came at a cost in that both variable costs and fixed costs were higher than the average, but the reward of higher output more than offset this higher cost structure. Not surprisingly, all variable costs except bedding were higher than the average. Among the fixed costs, top-third producers spent more on contractors, power and machinery, and property, and had higher finance charges than the average.
- Bottom-third producers also had higher variable and fixed costs than the average but did not see this rewarded by higher output.

Non-LFA lowground suckler herds – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	17	6
Average herd size (head)	94	90	81
		£ per cow	
Calf output after valuation changes	603.45	721.93	949.91
Subsidies	46.10	48.67	51.32
Gross Output	**649.55**	**770.59**	**1001.23**
Less net replacement cost	91.80	90.07	93.64
Net Output	**557.76**	**680.52**	**907.59**
Variable Costs			
Purchased concentrates	17.92	21.93	46.68
Home-grown concentrates	54.43	32.93	36.12
Roughages purchased	47.52	47.10	46.89
Forage	79.16	74.66	90.32
Total Feed and Forage	*199.03*	*176.62*	*220.00*
Veterinary	36.43	38.28	48.20
Bedding	34.96	41.70	29.98
Other costs	21.07	25.99	38.72
Total Variable Costs	**291.50**	**282.59**	**336.80**
Gross Margin	**266.26**	**397.93**	**570.79**
Fixed Costs			
Labour	95.52	54.86	41.64
Contractors	18.24	29.17	34.16
Power and machinery	89.83	106.47	129.84
Property maintenance and rent	74.43	88.53	103.70
Depreciation	79.70	91.69	86.12
Finance	58.96	40.01	44.95
Administration	29.82	20.75	15.37
Total Fixed Costs	**446.49**	**431.49**	**455.78**
Net Margin	**(-)180.23**	**(-)33.56**	**115.00**
Annual herd maintenance cost – pence per kg calf produced	37	31	26
Variable cost – pence per kg calf produced	117	98	93
Fixed cost – pence per kg calf produced	180	149	126
Unpaid family labour hours	3hrs 20m	6hrs 30m	9hrs 50m

Totals may not add up due to rounding

Non-LFA lowground suckler herds – technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	22	25	27
Calves born dead or alive per 100 cows	91	93	97
Calves born dead per 100 cows	3	2	3
Calves died per 100 cows	2	2	2
Calves reared per 100 cows	86	89	92
Daily liveweight gain (kg)	1.04	1.08	1.07
Weight – kg per calf sold	289	324	395
Weight produced – kg per cow	248	289	362
Cow replacement rate per 100 cows	15	15	16
Cow mortality %	2.5	2.	3
Purchased concentrates – kg per cow	102	115	238
Home-grown concentrates – kg per cow	316	198	225
Stocking rate GLU/ha	1.97	1.47	1.11

Figures may not tally due to rounding

Results from rearer-finisher enterprises

In the case of these 23 enterprises farming 2,572 cows, the reported margins relate to the costs and income for a 12 month period to the end of April 2015.

The businesses surveyed produced an average gross margin per cow of £381, within a range from £200 to £702 per cow, and an average net margin of (-)£217 per cow. Four (17%) enterprises reported a positive net margin.

- The top-third producers ranked by gross margin per cow achieved a net output £45 higher than the average, largely through the production of 8% more saleable output per cow. This was partially the result of higher prolificacy (seven more calves reared per 100 cows), as individual animal sale weights were significantly lower than the average. Net output was also impacted by the lower cow replacement rates among the top third and hence lower herd maintenance charges.
- As the gross output was only £26 higher among the top third than the average, the significant financial gains came from cost control. Lower cow mortality and reduced replacement rates resulted in savings in herd maintenance costs, and there were also significant reductions from the average in expenditure on feed and forage and vet costs, despite higher cow productivity. Variable costs among the top third were £117 per head lower than the average.
- With the exception of property maintenance costs, those in the top third spent less than the average on fixed costs, with paid labour and depreciation charges being notably lower than the average.
- Bottom-third producers had lower output per cow, a reflection of lower calving rates, offset partially by selling the heaviest cattle and higher herd maintenance charges. Variable costs were 10% higher among the bottom third despite the lower number of calves reared per cow. Fixed costs were little different from those in the top third.

Rearer finisher herds – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	8	23	8
Average herd size (head)	118	112	77
		£ per cow	
Calf output after valuation changes	986.42	1038.46	1059.00
Subsidies	45.21	46.43	52.18
Gross Output	**1031.63**	**1084.89**	**1111.18**
Less net replacement cost	99.84	98.58	79.31
Net Output	**931.78**	**986.31**	**1031.87**
Variable Costs			
Purchased concentrates	152.12	92.83	59.39
Home-grown concentrates	105.50	141.04	100.51
Roughages purchased	74.13	79.26	85.52
Forage	160.15	132.95	95.88
Total feed and forage	491.90	446.09	341.30
Veterinary	66.63	58.93	50.32
Bedding	64.58	55.56	47.09
Other costs	42.07	44.74	49.94
Total Variable Costs	**665.19**	**605.31**	**488.65**
Gross Margin	**266.60**	**381.00**	**543.22**
Fixed Costs			
Labour	116.40	143.72	111.47
Contractors	69.23	49.40	39.74
Power and machinery	149.56	141.94	140.01
Property maintenance and rent	78.97	94.12	130.83
Depreciation	100.59	100.50	90.35
Finance	24.41	30.15	11.91
Administration	20.95	38.69	36.83
Total Fixed Costs	**560.10**	**598.56**	**561.12**
Net Margin	**(-)293.20**	**(-)217.56**	**(-) 17.91**
Annual herd maintenance cost – pence per kg calf produced	24	21	16
Variable cost – pence per kg calf sold	166	131	98
Fixed cost – pence per kg calf sold	136	130	113
Unpaid family labour hours	11hrs 15m	8hrs 40m	8hrs 30m

Totals may not add up due to rounding

Rearer finisher herds – technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	27	26	22
Calves born dead or alive per 100 cows	93	94	98
Calves born dead per 100 cows	5	4	1
Calves died per 100 cows	2	2	2
Calves reared per 100 cows	86	88	95
Daily liveweight gain (kg)	0.94	0.89	0.83
Weight – kg per calf sold finished	628	613	567
Weight reared kg per cow per year	411	460	497
Cow replacement rate per 100 cows	16	15	14
Cow mortality %	3.7	2.8	1.9
Purchased concentrates – kg per cow	744	420	238
Home-grown concentrates – kg per cow	749	980	827
Stocking rate GLU/ha	0.67	1.04	1.53
Selling price p/kg dwt finished	360	350	349
Selling price p/kg lwt store	239	240	194

Totals may not add up due to rounding

Cattle finishing

Results from cereal-based cattle finishing enterprises

Nineteen cereal-based cattle finishing enterprises were surveyed. They sold 1,239 cattle and achieved an average gross margin of £170 per animal. The average net margin among those surveyed was positive at £55 per head and ranged from (-)£45 to £279 per head. Fourteen businesses (73%) reported a positive net margin.

- Enterprises in the top third of those surveyed had a net output £101 per animal better than the average and £227 better than the bottom third. They did not sell the heaviest cattle, but achieved the best market price and the best daily liveweight gains. However, this only resulted in £38 per head better sales revenue than the average. The biggest contributor to the higher-than-average net output, though, was the efficiency of cattle purchase, partly achieved through buying the smallest cattle, but clearly also those with growth potential. This is perhaps a reflection of their greater dependence on young bulls in the mix of stock sold.
- Those in the bottom third of financial performance, in contrast, had the highest dependence on heifers in their sales mix, had the shortest finishing period and sold the lightest cattle but had the lowest mortality during the finishing period. Their purchase and sale prices were little different from the average.
- Those in the top third made the greatest use of concentrates and grains, in total using some 163 kg per head more than the average, and had the greatest dependence on purchased feeds, which accounted for one third of concentrate and grain use compared to 27% on average. In contrast, those in the bottom third used the least concentrate feeding and achieved the lowest daily liveweight gains.
- Although the top third had the highest variable costs, they were only 1% higher than the average. Equally, there was little difference in fixed costs between the top third and the average. As a consequence, all the improved margin came from the efficiency of livestock growth and skill in the marketplace.
- In contrast, the bottom third of producers had the lowest cost per animal sold but were not able to achieve the output necessary to maintain this advantage at the margin level.

Cereal-based cattle finishing enterprises – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	19	6
Average herd size (head)	50	65	50
		£ per head	
Stock Sales	**1116.66**	**1258.02**	**1296.36**
Less stock purchases	711.62	727.06	663.94
Net Output	**405.04**	**530.96**	**632.41**
Variable Costs			
Purchased concentrates	68.37	101.43	104.32
Home-grown concentrates	144.52	164.71	165.69
Other feeds	13.01	18.89	19.98
Forage	11.34	4.69	0.85
Total feed and forage	*237.24*	*289.73*	*290.74*
Veterinary	14.63	13.46	12.37
Bedding	30.62	26.07	32.07
Other costs	32.38	31.86	29.72
Total Variable Costs	**314.87**	**361.12**	**364.90**
Gross Margin	**90.17**	**169.84**	**267.51**
Fixed Costs			
Labour	29.43	27.92	25.96
Contractors	7.70	10.15	12.32
Power and machinery	19.03	25.12	27.39
Property maintenance and rent	12.76	16.70	22.43
Depreciation	18.39	19.40	16.59
Finance	11.04	7.53	3.17
Administration	8.43	8.12	5.62
Total Fixed Costs	**106.78**	**114.94**	**113.49**
Net Margin	**(-)16.61**	**54.90**	**154.02**
Stores purchased – pence per kg lwt sold	127	116	107
Variable cost – pence per lwt sold	56	58	59
Fixed cost – pence per kg lwt sold	19	18	18
Unpaid family labour hours	45m	55m	1hr 20m

Totals may not add due to rounding

Cereal-based cattle finishing enterprises – technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	221	241	239
Start weight (kg lwt)	300	307	284
Finish weight (kg lwt)	560	627	619
Daily liveweight gain (kg)	1.18	1.33	1.40
Mortality (%)	1	1.3	1.6
Purchased concentrates – kg/head	266	478	635
Home-grown concentrates – kg/head	1122	1298	1304
Purchase price (£ per kg lwt)	2.34	2.33	2.29
Sale price sold dwt (£ /kg dwt)	3.45	3.46	3.61
Sales			
Steers % of sales	0	23	0
Liveweight at sale	0	658	0
Steer selling price – p/kg dwt	0	337	0
Heifers % of sales	84	27	12
Liveweight at sale	545	545	544
Heifer selling price – p/kg dwt	349	347	351
Young bulls % of sales	16	50	88
Liveweight at sale	634	657	629
Young bull selling price – p/kg dwt	323	349	362

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 around 22 months. This has been taken as the age for splitting the businesses surveyed. Thus the two groups are those selling finished cattle under 22 months of age and those selling finished cattle at over 22 months of age.

The first group, selling younger cattle, comprises 19 businesses finishing an average of 90 cattle and the second group, selling older cattle, comprises 17 businesses but with a smaller average size of 59 cattle.

- Those selling younger cattle reported a gross margin of £76 per animal sold falling to a net margin of (-)£127 per animal sold; two (10%) of the businesses in this group achieved a positive net margin. Their counterparts selling older cattle reported a gross margin of £69 per head and a net margin of (-)£203; none of the group achieved a positive net margin.
- Both groups bought cattle of a similar weight, with those selling older cattle buying cattle around 1% smaller than those selling younger cattle. Those selling younger cattle had a higher proportion of steers in their mix. Not surprisingly, those keeping cattle to an older age sold much heavier cattle, some 70 kg heavier; however, their daily liveweight gains were very similar. Mortality rates were slightly higher among those selling younger cattle. Selling price per kilogramme was higher among those selling younger cattle. The balance of these differences was that the net output among the older age group was £90 per head higher than those selling younger cattle.
- Equally, though, those selling older, heavier, cattle – having fed them for almost three months longer – incurred higher variable costs, particularly in respect of feed and forage where concentrate cost was 20% higher on a 19% greater volume, and forage and roughage costs were almost two-thirds higher. Consequently the gain at net output level was turned into a position where the gross margin among those selling older cattle was £6.50 smaller than those selling younger cattle
- Furthermore, fixed costs per animal were higher among those with older cattle, meaning that the net margin for this group of finishers was £77 per animal lower than their counterparts selling younger cattle.
- Within the groups, similar messages emerge. Top-third producers in both groups sold heavier cattle while achieving better growth rates than the average. Among the older group, those in the top third did not match the 'per kg' price of the smaller animals and their net output was only 1.8% better than the average. Their improved margin was largely driven by greater dependence on forages and roughages as well as by reduced use of concentrates and bedding. Among those selling younger cattle, the best margins were achieved by businesses achieving the highest price per kg for prime stock and the heaviest weights, although these cattle were still 50kg lighter than the average weight in the older age group. They also bought the smallest animals and grew them more quickly. Veterinary and bedding costs were much higher among the top third. They also had much higher fixed costs, reflecting greater investment in contract labour, machinery and property costs.

Forage-based cattle finishing under 22 months – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	19	6
Average herd size (head)	121	90	66
		£ per head	
Stock Sales	**1144.12**	**1201.53**	**1341.58**
Less stock purchases	873.07	791.75	723.34
Net Output	**271.05**	**409.78**	**618.25**
Variable Costs			
Purchased concentrates	133.81	126.35	186.21
Home-grown concentrates	19.13	56.53	54.82
Other feeds	29.18	30.81	31.27
Forage	49.70	45.57	29.98
Total feed and forage	*231.83*	*259.26*	*302.28*
Veterinary	12.62	15.96	30.08
Bedding	15.50	24.10	47.18
Other costs	19.76	34.03	56.44
Total Variable Costs	**279.71**	**333.35**	**435.98**
Gross Margin	**(-) 8.66**	**76.42**	**182.27**
Fixed Costs			
Labour	5.06	22.32	22.30
Contractors	20.36	26.15	35.28
Power and machinery	21.85	47.69	68.09
Property maintenance and rent	21.39	41.62	60.06
Depreciation	33.65	43.43	62.02
Finance	6.73	7.42	7.11
Administration	13.98	14.53	17.24
Total Fixed Costs	**123.03**	**203.18**	**272.11**
Net Margin	**(-)131.69**	**(-)126.76**	**(-)89.85**
Stores purchased – pence per kg lwt sold	148	134	118
Variable cost – pence per lwt sold	47	56	71
Fixed cost – pence per kg lwt sold	21	34	44
Unpaid family labour hours	6hrs 40m	5hrs 40m	4hr 55min

Totals may not add up due to rounding

Forage-based cattle finishing under 22 months – technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	294	326	365
Start weight (kg lwt)	398	343	298
Finish weight (kg lwt)	588	593	614
Daily liveweight gain (kg)	0.65	0.77	0.88
Mortality (%)	3	1.5	Neg
Purchased concentrates – kg/head	982	722	791
Home-grown concentrates – kg/head	85	387	416
Purchase Price (£ per kg lwt)	213	227	242
Sale price sold dwt (p per kg dwt)	335	355	377
Sales			
Steers % of sales	89	64	61
Liveweight at sale	587	597	619
Steer selling price – p/kg dwt	333	347	378
Heifers % of sales	11	34	30
Liveweight at sale	595	578	575
Heifer selling price – p/kg dwt	353	355	372
Young bulls % of sales	0	2	9
Liveweight at sale	0	699	699
Young bull selling price – p/kg dwt	0	380	380

Forage-based cattle finishing over 22 months – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	17	6
Average herd size (head)	65	59	58
		£ per head	
Stock Sales	**1271.30**	**1303.52**	**1356.07**
Less stock purchases	860.10	813.35	856.90
Net Output	**411.20**	**490.17**	**499.17**
Variable Costs			
Purchased concentrates	126.70	71.72	36.20
Home-grown concentrates	135.61	149.03	111.12
Other feeds	60.66	74.95	60.20
Forage	35.04	49.72	61.65
Total feed and forage	*358.01*	*345.41*	*269.18*
Veterinary	15.62	15.12	14.55
Bedding	36.70	23.42	7.18
Other costs	33.76	36.37	40.13
Total Variable Costs	**444.10**	**420.33**	**331.04**
Gross Margin	**(-)32.90**	**69.85**	**168.13**
Fixed Costs			
Labour	30.13	49.34	44.10
Contractors	35.55	25.93	18.03
Power and machinery	48.25	55.89	56.65
Property maintenance and rent	37.24	42.07	58.85
Depreciation	47.39	59.90	82.78
Finance	27.16	23.60	25.22
Administration	8.60	16.20	18.86
Total Fixed Costs	**234.33**	**272.94**	**304.50**
Net Margin	**(-)267.23**	**(-)203.09**	**(-)136.36**
Stores purchased – pence per kg lwt sold	137	122	126
Variable cost – pence per lwt sold	71	63	49
Fixed cost – pence per kg lwt sold	37	41	45
Unpaid family labour hours	9hrs 30m	7hrs 25m	10hrs 5m

Totals may not add up due to rounding

Forage-based cattle finishing over 22 months – technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	403	414	416
Start weight (kg lwt)	370	338	345
Finish weight (kg lwt)	627	664	679
Daily liveweight gain (kg)	0.64	0.79	0.80
Mortality (%)	Neg	0.5	Neg
Purchased concentrates – kg/head	536	307	161
Home-grown concentrates – kg/head	927	1013	836
Purchase Price (£ per kg lwt)	231	239	247
Sale price sold dwt (p per kg dwt)	359	341	343
Sales			
Steers % of sales	21	50	72
Liveweight at sale	622	698	719
Steer selling price – p/kg dwt	360	339	340
Heifers % of sales	79	50	28
Liveweight at sale	631	628	614
Heifer selling price – p/kg dwt	345	343	352
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 27 such flocks farming over 21,310 ewes. These flocks are characterised by low lambing percentages, averaging 96% lambs reared within a range of less than 60% to over 120%. The average gross margin achieved across this group was £19 per ewe, but the average net margin was (-)£22 per ewe within a range of (-)£52 to £17 per ewe. Four producers (15%) 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 £18 over the average is largely due to:
  - A higher number of lambs reared – 15 more lambs per ewe than average;
  - Although there was little difference in the proportion of lambs sold or retained as finished, store or breeding, those in the top third produced heavier lambs realising slightly higher prices.
  - This in turn resulted in 16% more lamb produced per ewe; and a net output £14 per head higher than the average.
- Bottom-third producers achieved a gross margin of £5 per ewe, £15 lower than the average, and a net margin of (-)£27 per ewe, £5 worse than the average. However, it must be recognised that the bottom third contains all the businesses in the survey from the North West Highlands and Islands region and also flocks in the Grampians and South Lanarkshire, 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 85%. Nevertheless, the average weight of lambs sold and proportions of these lambs sold prime and store were similar to the average, and indeed prime and store lamb selling price was better than the average. However, because of the lower lamb reared percentages, the weight of lamb sold per ewe among the bottom third was 8% lower than the average, and market return was 10% lower because of a higher requirement to retain lambs for flock maintenance.
- Variable costs among the top-third producers were £4 per ewe lower than the average due mainly to lower purchased concentrate, other feeds and veterinary costs. Those in the bottom third had variable costs £6 per ewe higher than the average through increased expenditure on feed and veterinary expenses.
- Top third-producers had strong control over fixed costs, which were £1 per ewe less than the average. However, the bottom third fared even better, with fixed costs £10 per ewe lower than the average, perhaps a reflection of the more extensive nature of these sheep enterprises.

LFA hill ewe flocks – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	9	27	9
Flock size	807	789	538
		£ per ewe	
Lamb sales	49.04	54.25	66.48
Wool	1.75	2.22	2.42
Gross Output	**50.79**	**56.47**	**68.89**
Less replacement costs	14.74	11.86	9.80
Net Output	**36.06**	**44.61**	**59.09**
Variable Costs			
Purchased concentrates	8.07	5.80	4.30
Home-grown concentrates	0	0	0
Other feeds	1.97	2.41	1.22
Forage	6.75	4.06	4.42
Total feed and forage	*16.79*	*12.26*	*9.94*
Veterinary	8.06	6.26	5.32
Bedding	0.08	0.05	0.01
Other costs	6.33	6.43	5.93
Total Variable Costs	**31.26**	**25.01**	**21.21**
Gross Margin	**4.80**	**19.60**	**37.88**
Fixed Costs			
Labour	7.50	12.43	11.69
Contractors	3.85	2.88	3.22
Power and machinery	5.38	7.29	8.95
Property maintenance and rent	5.09	7.99	6.70
Depreciation	6.12	5.49	5.87
Finance	0.38	0.60	1.39
Administration	3.66	5.09	2.75
Total Fixed Costs	**31.98**	**41.78**	**40.58**
Net Margin	**(-)27.18**	**(-)22.18**	**(-)2.70**
Flock replacements – pence per kg lamb produced	48	35	25
Variable cost – pence per kg lamb produced	101	74	54
Fixed cost – pence per kg lamb produced	103	124	104
Unpaid family labour hours	65m	40m	40m

Totals may not add up due to rounding

LFA hill ewe flocks – technical performance

	Bottom Third	Average	Top Third
Ewes per ram	40	42	52
Ewe replacement rate %	27.4	24.2	23.3
Lambs born dead or alive per 100 ewes	104	114	129
Lamb mortality (inc. born dead) %	19	18	18
Lambs reared per 100 ewes	85	96	111
Average weight of lambs kg	36.2	34.9	35.3
Weight of lamb produced per ewe kg	30.9	33.6	39.0
Purchased concentrates kg/ewe	32	23	17
Home-grown concentrates kg/ewe	0	0	0
Lambs sold finished per 100 ewes	12	12	14
Value per lamb £/head	67.14	60.63	60.13
Lambs sold/transferred store per 100 ewes	39	49	52
Value per lamb £/head	47.74	46.45	47.33
Lambs sold/transferred for breeding per 100 ewes	34	35	45
Value per lamb £/head	65.65	68.60	74.58

Results from LFA upland ewe flocks

LFA upland breeding flocks are identified as LFA farms running crossbred flocks. Thirty-one such flocks were recorded in this survey, which collectively farmed some 16,125 ewes. These enterprises achieved an average gross margin of £57 per ewe and average net margin of £8 per ewe. Twenty-one of the businesses surveyed (68%) returned a positive net margin within a range (-)£23 to £53 per ewe.

- Producers in the top third achieved a gross margin of £74 per ewe, 30% better than the average and 75% better than the bottom third. Nevertheless, all groups sold between 70 and 75% of their lamb crop as prime lambs and used between 52 and 55 kg of concentrate feed per ewe.
- All of this improvement in gross margin among the top third came from higher gross output, as the variable costs per ewe were higher among the top third, on average. Higher output was achieved through improved flock performance including:
  - Seven more lambs reared per 100 ewes than the average;
  - 0.9 kg higher lamb sale weights leading to 7.5% more liveweight produced per ewe than the average; and
  - Higher sale prices for prime and breeding stock.
- In contrast, bottom-third producers achieved:
  - Four fewer lambs reared per 100 ewes than the average;
  - 3% less liveweight lamb produced per ewe than the average;
  - Lower revenue from prime lamb sales.
- Despite higher output from those in the top third, this was achieved with very similar variable costs to the average, although because they had lower replacement rates in their flock maintenance charge was lower than the average. In contrast, those in the bottom third carried 10% higher variable costs per ewe than those in the top third and average, and also had the highest flock maintenance charge due to the highest ewe replacement rate.
- Those in the top third and bottom third carried very similar fixed costs, but they were higher than the overall average.

LFA upland ewe flocks – financial performance measures

	Bottom Third	Average	Top Third
Number in sample	10	31	10
Flock size	532	520	446
		£ per ewe	
Lamb sales	98.95	108.28	123.14
Wool	3.11	2.81	2.81
Gross Output	**102.06**	**111.08**	**125.95**
Less replacement costs	14.31	13.12	11.58
Net Output	**87.76**	**97.97**	**114.37**
Variable Costs			
Purchased concentrates	10.74	11.34	10.90
Home-grown concentrates	1.32	1.13	2.10
Other feeds	3.52	3.17	1.97
Forage	6.63	7.16	7.21
Total feed and forage	*22.20*	*22.81*	*22.18*
Veterinary	9.88	8.21	8.23
Bedding	1.66	1.26	1.20
Other costs	10.27	8.30	8.69
Total Variable Costs	**44.01**	**40.58**	**40.31**
Gross Margin	**43.75**	**57.39**	**74.06**
Fixed Costs			
Labour	12.00	7.56	8.18
Contractors	4.24	4.42	4.10
Power and machinery	11.13	12.16	15.87
Property maintenance and rent	11.17	10.40	10.79
Depreciation	8.30	8.89	7.76
Finance	2.10	2.50	3.02
Administration	4.30	3.42	3.42
Total Fixed Costs	**53.26**	**49.35**	**53.17**
Net Margin	**(-)9.51**	**8.04**	**20.90**
Flock replacements – pence per kg lamb produced	24	22	18
Variable cost – pence per kg lamb produced	74	67	62
Fixed cost – pence per kg lamb produced	90	81	81
Unpaid family labour hours	1hr 30m	1hr 35m	1hr 30m

Totals may not add due to rounding

LFA upland ewe flocks – technical performance

	Bottom Third	Average	Top Third
Ewes per ram	26	33	35
Ewe replacement rate %	24.6	22.5	20.3
Lambs born dead or alive per 100 ewes	167	165	171
Lamb mortality (inc. born dead) %	22	16	15
Lambs reared per 100 ewes	145	149	156
Average weight of lambs kg	40.57	40.82	41.72
Weight of lamb produced per ewe kg	59.00	60.66	65.32
Purchased concentrates – kg/ewe	41	45	44
Home-grown concentrates – kg/ewe	11	8	11
Lambs sold finished per 100 ewes	110	104	113
Value per lamb £/head	67.84	72.34	73.96
Lambs sold/transferred store per 100 ewes	20	20	3
Value per lamb £/head	60.49	60.65	59.71
Lambs sold/transferred for breeding per 100 ewes	15	25	40
Value per lamb £/head	85.30	86.17	93.39

Results from lowground breeding flocks

The 12 businesses in the survey farmed some 7,175 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 three flocks in this group achieved a positive net margin, with the average being £34 per ewe within a range from (-)£20 to £63 per ewe.
- Better financial returns tend to be associated with high physical performance, with those at the top of financial returns typically having the highest lamb weaned percentages of around 175 lambs reared per 100 ewes. This gives the highest weight of lamb produced per ewe, but they also have the highest proportion of prime lamb sales. The converse is true among those with lower financial margins.
- Those with the better financial performance do, however, have the highest cost structure – with notably higher costs for concentrate feed, veterinary expenses and paid labour. Yet the higher cost is offset by better physical performance and return from the marketplace.

Lowground ewe flocks – financial performance measures

	Average
Number in sample	12
Flock size	598
	£ per ewe
Lamb sales	136.93
Wool	2.58
Gross Output	**139.52**
Less replacement costs	13.19
Net Output	**126.33**
Variable Costs	
Purchased concentrates	14.56
Home-grown concentrates	2.05
Other feeds	4.25
Forage	7.26
Total feed and forage	*28.11*
Veterinary	8.81
Bedding	1.01
Other costs	8.18
Total Variable Costs	**46.11**
Gross Margin	**80.22**
Fixed Costs	
Labour	10.21
Contractors	2.96
Power and machinery	9.48
Property maintenance and rent	12.65
Depreciation	6.98
Finance	1.19
Administration	2.07
Total Fixed Costs	**45.48**
Net Margin	**34.73**
Flock replacements – pence per kg lamb produced	20
Variable cost – pence per kg lamb produced	68
Fixed cost – pence per kg lamb produced	67
Unpaid family labour hours	55 mins

Totals may not add up due to rounding

Lowground ewe flocks – technical performance

	Average
Ewes per ram	37
Ewes replacement rate %	20.5
Lambs born dead or alive per 100 ewes	174
Lamb mortality (inc. born dead) %	14
Lambs reared per 100 ewes	160
Average weight of lambs – kg	42.14
Weight of lamb produced per ewe – kg	67.30
Purchased concentrates – kg/ewe	57
Home-grown concentrates – kg/ewe	16
Lambs sold finished per 100 ewes	138
Value per lamb – £/head	86.31
Lambs sold/transferred store per 100 ewes	6
Value per lamb – £/head	67.10
Lambs sold/transferred for breeding per 100 ewes	16
Value per lamb – £/head	87.49

Results from store lamb finishing enterprises

Twelve store lamb finishing businesses, selling just over 8,000 lambs, achieved an average gross margin of £10 per lamb. Net margins averaged £5.90 per lamb in a range from (-)£4 to £15 per lamb, with three-quarters of those surveyed achieving a positive net margin. The size of the group was insufficient to make robust comparisons between top and bottom-third performance.

- The average finishing period of 110 days was within a range of 30 days to 185 days, with the average finisher adding some 6.5kg to their lamb's purchase weight of 31.6kg.
- Average mortality among the group was 1.5%, within a range from 0% to 3.8%.
- Those with better financial returns tended to have a slightly longer feeding period but sold slightly smaller lambs than the group average, thus accepting lower growth rates than the average but at the best price per kilogram.
- The more significant difference was that those with the better financial performance used considerably less purchased feed but had higher forage costs than the average. Overall their feed and forage costs were lower than the average, as were their veterinary costs.
- In contrast, those at the lower end of financial performance, although selling the heaviest lambs, did not gain the highest return per lamb. This may be a reflection of timing of sales, in that these businesses tended to have the shortest finishing period and much higher purchased feed and veterinary cost, alongside the highest mortality rates.

Store lamb finishing – financial performance measures

	Average
Number in sample	12
Flock size	680
	£ per lamb
Lamb Sales	**70.91**
Less purchases	49.34
Net Output	**21.57**
Variable Costs	
Purchased concentrates	3.99
Home-grown concentrates	0.09
Other feeds	0.95
Forage	0.90
Total feed and forage	*5.93*
Veterinary	1.24
Bedding	0.02
Other costs	4.04
Total Variable Costs	**11.23**
Gross Margin	**10.33**
Fixed Costs	
Labour	0.90
Contractors	0.73
Power and machinery	0.84
Property maintenance and rent	0.78
Depreciation	0.75
Finance	0.27
Administration	0.14
Total Fixed Costs	**4.42**
Net Margin	**5.92**
Lambs purchased – pence per kg lwt lamb sold	129
Variable cost – pence per kg lwt lamb sold	29
Fixed cost – pence per kg lwt lamb sold	11
Unpaid family labour hours	12 mins

Store lamb finishing – technical performance

	Average
Weight of lamb purchased kg	31.6
Liveweight of lamb sold	38.2
Carcase weight of lamb sold	17.9
Sale price – p/kg dwt	412
Daily liveweight gain	0.06
Finishing period – days	110
Mortality %	1.5
Purchased concentrates – kg/lamb	17
Home-grown concentrates – kg/lamb	1

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 2014 the average price paid for a -U3 steer exceeded that of an R4L steer by 4.4p/kg dwt, while for heifers this differential was higher at 7.7p/kg dwt. An improvement in carcase quality from O+4H to R4L was worth 11.7p/kg dwt to producers for steers and 13.4p/kg dwt for heifers during 2014.

Compared to 2013, the premium for leaner better conformation steers (-U3) quadrupled. In addition, the premium between the benchmark R4L grading and the poorer conformation and fatter O+4H grade steer also widened significantly from 5.1p/kg in 2013. This widening of the price gap may well reflect a better supplied market, which may have allowed abattoirs to be more discerning buyers. Increased differentials were also the case for heifers. As prime cattle supplies have tightened during 2015, price differentials between grades have been smaller.

Using the average carcase weights of steers and heifers slaughtered in Scottish abattoirs during 2012, 2013 and 2014, 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)		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
Steer	10	4	17	25	14	45
Heifer	17	17	26	19	19	45

Lamb

As is the case for beef, there is also a financial reward from the marketplace 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 9.7p/kg dwt during 2014, down 1.5p/kg from the previous year. The average extra price paid for an R3L carcase over an O3H lamb eased slightly in 2014. Although it slipped to 17.5p/kg from 18.4p/kg in 2013, it remained well in advance of 2011 and 2012 levels.

During 2014, the average carcase weight of a lamb killed at a Scottish abattoir was just over 20kg. Consequently, a lamb that achieved a U2 grade was worth, on average, £2 per carcase more than a lamb graded at R3L. Meanwhile, lambs graded at R3L were worth £3.50 more than those achieving an O3H grade. In 2013, these premia had been slightly higher at £2.20 and £3.70 respectively.

	Average U2 premium over R3L (£/head)			Average R3L premium over O3H (£/head)		
	2012	2013	2014	2012	2013	2014
Lambs	1.84	2.20	1.95	2.78	3.70	3.52

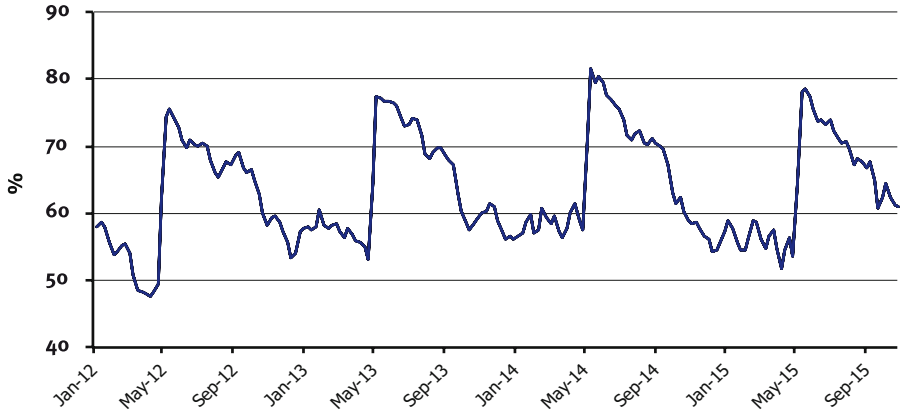
Moving into 2015, the first 40 weeks of the year have seen average price differentials of 9.8p/kg between a U2 and an R3L grade, and 14.7p between an R3L lamb carcase and an O3H. This means that the U2 premium has increased marginally from the same period last year whereas the R3L premium over O3H has declined by 2.4p/kg.

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 2014, 83% of lambs at GB price-reporting abattoirs achieved at least an R3L grading. This was the highest since the first week of May in 2005, and will have been underpinned by good ewe condition over the winter and helpful weather during the spring. As the weather continued to prove beneficial over the summer and into autumn, carcase quality remained above year-earlier levels. Indeed, a higher proportion of lambs achieved an R3L or better grade throughout the June to October period, generally by around 3 percentage points. However, as the marketing year progressed, lamb quality did slip behind year-earlier levels in November before recovering in late December.

Since the start of the 2015 marketing season, carcase quality has consistently trailed last year's levels and has also averaged slightly poorer than in 2013. Auction market figures show that the proportion of heavy lambs has continued to increase in 2015.

GB Seasonal Variation in Carcases Graded R3L or Better



ESTIMATION OF NON-CASH COST IN PRODUCING CATTLE AND 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 2015 report on tenanted land[1]. 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 £14.45 – an increase of 1% on the year.

Cattle enterprises

	Unpaid labour	Return on working capital[3]	Rent of land and buildings
	p/kg liveweight sold		
Hill suckler herds	88	22	27
Upland suckler herds selling calves at weaning	46	28	17
Upland suckler herds selling yearlings	56	21	18
Lowground suckler herds	33	25	26
Rearer-finisher herds	27	19	19
Cereal-based store finishing	2	7	1
Forage-based store finishing <22 months old	14	9	3
Forage-based store finishing >22 months old	16	9	4

[1] *"Tenanted Agricultural Land in Scotland 2014" Scottish Statistical Publication June 2015*

[2] *47-hour average week, assuming 5 weeks of leave*

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

	Unpaid labour	Return on working capital[4]	Rent of land and buildings
	p/kg liveweight sold		
Hill flocks	29	15	22
Upland flocks	38	11	8
Lowground non-LFA flocks	20	11	15
Store lamb finishers	8	7	3

Total cost of producing a kilogramme of beef or sheep meat

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.

[4] *Return required to give a 5% return on working capital*

	Non cash estimates						Total Cost	Selling price
	Repl. cost	Var. cost	Fixed cost	Labour	Working capital	Rental value		
	Pence per kg liveweight sold							
Sheep enterprises								
Store lambs	129	29	9	8	7	3	185	180
Hill ewe	35	74	96	29	15	22	271	161
Upland ewe	22	67	60	38	11	8	206	178
Lowland	20	68	47	20	11	15	181	203
Cattle enterprises								
Hill suckler	28	142	118	88	22	27	425	236
Upland selling at weaning	33	109	122	46	28	17	355	243
Upland selling yearlings	26	106	101	56	21	18	328	237
Non-LFA suckler	31	98	105	33	25	26	318	250
Rearer-finisher	21	131	103	27	19	19	320	203
Forage finisher <22 month	134	56	33	14	9	3	249	206
Forage finisher >22 month	122	63	26	16	9	4	240	198
Cereal finisher	116	58	12	2	7	1	196	201

Labour based on £14.45 per hour and 2,200 hours per man year (£31,790 employment cost per year)

Rental values based on values published in Scottish Government's Tenanted Agricultural land in Scotland 2014

Working capital charged at 5%

Fixed cost adjusted for property and finance paid.

COMPARISONS WITH 2012 AND 2013

The following tables summarise and compare the results from the 2014 calf and lamb crop with those of 2012 and 2013. 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

- With the exception of hill suckler herds, all suckler herd groups showed some improvement in margins with the 2014 calf crop. In most cases, output increased on the back of improved calf rearing rates after the challenges of 2013. Individual sale values for store cattle failed to reach the levels seen in 2013 in most cases, but having more cattle to sell brought in extra income. Nevertheless, the improvement in revenue was small.
- Similarly, with the exception of hill suckler herds, all groups showed some saving in variable costs. This was largely driven by lower feed and forage expenditure but also savings in veterinary expenses possibly associated with better weather conditions. However, bedding costs escalated in all cases. In contrast, fixed costs across all groups showed some increase (of between 2.5% and 7%) over 2013 which, in turn, had been higher than 2012.

Cattle finishing

- Rearer–finisher enterprises surveyed in 2014–2015 saw a deterioration in margins. Income derived from the sale of cattle came under pressure despite a further increase in sale weights. These herds also, like the suckler herds, saw some improvement in cow productivity. Variable costs, in contrast, were similar to year-earlier levels, with some reduction in feed and forage costs being offset by higher bedding charges. However, as with the suckler herds, fixed costs continued to increase – by 5%. Herd maintenance costs also increased.
- Margins among store cattle finishers were heavily determined by timing of purchase and sale. On average, prime cattle prices were 9–10% lower in 2014 than 2013, but the scale of decline varied during the year from (-)4% in spring 2014 to (-)17% in summer 2014 back to (-)9% in autumn and winter. Prime cattle sold in early 2015 also realised prices lower than twelve months earlier. Meanwhile store cattle prices were strong in the first half of 2014 before following a similar level to twelve months earlier in the autumn 2014 sales for older stores, while younger stores sold at lower prices than twelve months earlier.
- All store cattle finishers found sale prices lower than last year and tried to offset this loss of revenue through selling heavier cattle. Nevertheless, with the exception of the older age group, finishers found income from the marketplace falling below year-earlier levels.

Forage-based finishers were also badly affected by the increased cost of store cattle. Cereal-based finishers buying smaller, younger cattle were less affected by store cattle price movement. Similarly, with the exception of the older cattle group, savings were made in feed and forage costs, which helped to offset the decline in market returns. Longer keep forage-based systems, however, faced increased purchased feed costs.

Sheep Enterprises

LFA Sheep

- A significant improvement in weather conditions in late 2013 and over the lambing period in 2014 contributed to upland and hill flocks seeing an improvement in lambs reared rates. Despite some decline in per head revenue for prime lambs, there was a modest increase in store lamb prices. As a consequence, most flocks saw improvement in revenue from lamb sales while savings in flock maintenance charges also contributed to improved output.
- LFA flocks also saw some savings in costs driven largely by lower feed costs, a combination of lower prices and lower quantities needed. Upland flocks also achieved more control over fixed costs than their hill flock counterparts. As a consequence, and despite improved gross margins, hill flocks saw little change in net margins while the more prolific upland flocks achieved an improvement in net margins, returning the average net margin to a positive position.

Lowground sheep

- Earlier-lambing lowground flocks, which had not suffered as badly in spring 2013 as upland flocks, saw little change in ewe productivity; as a consequence, they did not see any improvement in marketplace revenue – indeed the lower prime lambs prices of summer and autumn resulted in some seeing lower market returns. Nevertheless, these enterprises did benefit from lower feed and forage expenditure and some savings on veterinary expenses. These changes to variable costs contributed to a useful increase in gross margin between years.
- Nevertheless, like most of the livestock enterprises in the survey, lowground sheep producers did see some increase in their fixed costs. Consequently the gains in gross margin were eroded at the net margin level, but nevertheless they recorded some improvement in the year.

Lamb finishing

- Store lamb producers saw some improvement in prime lamb prices on 2013 between December and Easter. However this year's surveyed enterprises sold much lighter lambs and, as a consequence, saw market revenue fall. This was offset almost entirely by lower purchase price for store lambs, but this was once again a consequence of buying smaller lambs.
- Store lamb finishers also benefited from lower feed and forage costs and little variation in fixed costs. Thus, despite little change in the value of output, gross and net margins improved on the year.

Suckler herds

	Hill suckler herds			Lowland suckler herds		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
Number in sample	15	16	16	17	16	17
Avg. herd size (head)	57	60	54	82	86	90
	£ per cow					
Calf output including beef calf premium	**605.67**	**687.46**	**667.95**	**568.79**	**716.25**	**770.59**
Less replacements	49.76	61.01	74.76	70.20	89.32	90.07
Net Output	**555.91**	**626.45**	**593.19**	**498.59**	**626.92**	**680.52**
Variable Costs						
Total concentrates	127.25	126.01	106.32	43.42	47.30	54.86
Other feeds	46.34	48.72	62.15	31.70	41.94	47.10
Forage	78.63	78.20	104.43	66.86	82.36	74.66
Total feed and forage	*252.22*	*252.93*	*272.90*	*141.98*	*171.60*	*176.62*
Veterinary	29.70	31.04	37.16	50.06	54.46	38.28
Bedding	11.57	18.13	26.27	41.81	43.08	41.70
Other costs	28.73	34.96	36.50	22.57	24.82	25.99
Total Variable Costs	**322.22**	**337.05**	**372.83**	**256.42**	**293.95**	**282.59**
Gross Margin	**233.69**	**289.40**	**220.36**	**242.17**	**332.97**	**397.93**
Fixed Costs	**369.24**	**385.46**	**399.64**	**373.83**	**401.01**	**431.49**
Net Margin	**(-)135.55**	**(-)96.06**	**(-)179.28**	**(-)131.66**	**(-)68.04**	**(-)33.56**

	Hill herds			Lowland herds		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
Physical Performance						
Calves born dead or alive per 100	94	95	94	91	90	93
Calves reared per 100	89	89	88	86	85	89
Daily liveweight gain (kg)	0.98	0.90	0.92	1.08	1.16	1.08
Return per calf (£ per head)	626	713	700	612	784	809
Calf price (£ per kg lwt)	2.10	2.43	2.34	2.00	2.41	2.49
Weight per calf (kg)	298	293	299	306	325	324

	Upland suckler herds Early weaning			Upland suckler herds Late weaning		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
Number in sample	31	33	30	30	27	25
Avg. herd size (head)	104	126	117	116	104	106
	£ per cow					
Calf output incl. Beef calf premium	**564.07**	**681.61**	**687.91**	**742.74**	**837.13**	**841.34**
Less replacements	71.96	92.18	87.78	78.69	83.03	86.81
Net Output	**492.11**	**589.43**	**600.13**	**664.05**	**754.10**	**754.52**
Variable Costs						
Total concentrates	47.64	46.22	45.04	118.33	146.38	100.08
Other feeds	29.15	47.54	42.22	30.59	38.43	39.84
Forage	95.68	109.01	97.76	86.55	99.20	95.75
Total feed and forage	*172.47*	*202.76*	*185.02*	*235.47*	*284.01*	*235.67*
Veterinary	36.85	46.13	49.53	48.00	53.78	44.26
Bedding	21.84	29.96	34.50	37.49	39.01	51.50
Other costs	19.68	22.54	18.19	27.06	33.61	24.46
Total Variable Costs	**250.84**	**301.39**	**287.23**	**348.03**	**410.41**	**355.89**
Gross Margin	**241.27**	**288.04**	**312.90**	**316.03**	**343.69**	**398.63**
Fixed Costs	**383.35**	**411.79**	**422.48**	**425.35**	**446.52**	**457.02**
Net Margin	**(-)142.08**	**(-)123.76**	**(-)109.58**	**(-)109.32**	**(-)102.83**	**(-)58.39**

	Upland herds – Early weaning			Upland herds – Late weaning		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
Physical Performance						
Calves born dead or alive per 100	92	93	95	92	91	94
Calves reared per 100	86	87	88	85	85	87
Daily liveweight gain (kg)	1.05	1.12	1.06	0.90	1.06	0.94
Return per calf (£ per head)	608	735	729	825	934	910
Calf price (£ per kg lwt)	2.06	2.52	2.43	2.17	2.38	2.36
Weight per calf (kg)	295	292	300	380	393	384

	Rearer/Finishers		
	2012	**2013**	**2014**
Number in sample	22	24	23
Average herd size (head)	95	117	112
	£ per cow		
Calf output incl. Beef calf premium	**999.39**	**1198.71**	**1084.89**
Less replacements	75.96	90.18	98.58
Net Output	**923.44**	**1108.53**	**986.31**
Variable Costs			
Total concentrates	218.17	237.71	233.87
Other feeds	48.45	65.23	79.26
Forage	115.86	147.11	132.95
Total feed and forage	*382.49*	*450.05*	*446.09*
Veterinary	49.64	58.37	58.93
Bedding	52.16	53.60	55.56
Other costs	41.94	45.48	44.74
Total Variable Costs	**526.24**	**607.50**	**605.31**
Gross Margin	**397.20**	**501.03**	**381.00**
Fixed Costs	**486.04**	**567.60**	**598.56**
Net Margin	**(-)70.83**	**(-)66.58**	**(-)217.56**
Physical Performance			
Calves born dead or alive per 100	94	92	94
Calves reared per 100	88	86	88
Daily liveweight gain (kg)	0.83	0.81	0.89
Return per calf (£ per head)	1183	1318	1307
Sale price (pence per kg dwt)	352	375	350
Weight per calf (kg)	580	606	644

Businesses finishing cattle under cereal-based systems

	Cereal-based		
	2012	**2013**	**2014**
		£ per head	
Number in sample	15	15	19
Stock Sales	**1229.11**	**1345.38**	**1258.02**
Less stock purchases	657.38	752.72	727.06
Net Output	**571.73**	**592.66**	**530.96**
Variable Costs			
Concentrates	263.34	258.98	266.14
Other feeds	22.98	25.42	18.89
Forage	7.63	7.15	4.69
Total feed and forage	*293.95*	*291.55*	*289.73*
Veterinary	12.93	15.29	13.46
Bedding	30.69	27.86	26.07
Other Costs	35.10	32.32	31.86
Total Variable Costs	**372.68**	**367.02**	**361.12**
Gross Margin	**199.05**	**225.64**	**169.84**
Fixed Costs	**92.02**	**99.63**	**114.94**
Net Margin	**107.03**	**126.01**	**54.90**
Physical Performance			
Feeding period (days)	243	247	241
Start wt (kg lwt)	289	309	307
Average carcase weight (kg dwt)	353	371	364
Daily LWT gain (kg)	1.3	1.3	1.3
Mortality (%)	0.1	1	1.3
Sale price (£ per kg dwt)	3.51	3.70	3.46
Purchase price (£ per kg lwt)	2.27	2.40	2.32
Gross Margin per day (£ per day of feeding period)	0.82	0.91	0.70

Businesses finishing cattle under forage-based systems

	Forage-based <22 month at slaughter			Forage-based >22 month at slaughter		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
	£ per head					
Number in sample	18	18	19	18	17	17
Stock Sales	**1294.33**	**1236.62**	**1201.53**	**1356.99**	**1266.85**	**1303.52**
Less stock purchases	662.37	658.58	791.75	843.54	737.19	813.35
Net Output	**631.96**	**578.04**	**409.78**	**513.44**	**539.66**	**490.17**
Variable Costs						
Concentrates	207.62	212.21	182.88	207.68	190.66	220.25
Other feeds	22.82	29.88	30.81	21.34	29.00	74.95
Forage	48.56	39.81	45.57	60.03	63.81	49.72
Total feed and forage	*279.00*	*281.90*	*259.26*	*289.05*	*283.47*	*345.41*
Veterinary	13.47	18.35	15.96	14.14	10.89	15.12
Bedding	39.85	32.64	24.10	29.63	21.06	23.42
Other Costs	47.84	41.76	34.03	40.26	30.38	36.37
Total Variable Costs	**380.16**	**374.64**	**333.35**	**373.07**	**345.80**	**420.33**
Gross Margin	**251.80**	**203.40**	**76.42**	**140.37**	**193.87**	**69.85**
Fixed Costs	**215.92**	**251.28**	**203.18**	**208.64**	**206.02**	**272.94**
Net Margin	**35.88**	**(-)47.88**	**(-)126.76**	**(-)68.27**	**(-)12.15**	**(-)203.09**
Physical Performance						
Feeding period (days)	316	318	326	417	406	414
Start wt (kg lwt)	322	300	343	371	316	338
Average carcase weight (kg dwt)	346	331	344	380	371	385
Daily LWT gain (kg)	0.87	0.80	0.77	0.68	0.80	0.79
Mortality (%)	0.2	0.8	1.5	0.3	0.5	0.5
Sale price (£ per kg dwt)	376	379	355	355	348	341
Purchase price (£ per kg lwt)	205	218	227	226	228	239
Gross Margin per day (£ per day of feeding period)	0.80	0.64	0.23	0.34	0.48	0.17

Results from LFA sheep flocks

	LFA upland sheep flocks			LFA hill sheep flocks		
	2012	**2013**	**2014**	**2012**	**2013**	**2014**
	£ per ewe					
Number in Sample	32	31	31	26	29	27
Lamb Sales	**103.46**	**104.21**	**108.28**	**59.48**	**52.53**	**54.25**
Wool	3.50	2.68	2.81	2.38	2.28	2.22
Gross Output	**106.96**	**106.89**	**111.08**	**61.86**	**54.81**	**56.47**
less replacement costs	11.93	14.34	13.12	11.34	13.19	11.86
Net Output	**95.03**	**92.55**	**97.97**	**50.52**	**41.62**	**44.61**
Variable Costs						
Concentrates	12.26	15.11	12.47	6.89	7.91	5.80
Forage cost	7.71	8.20	7.16	3.78	3.38	4.06
Roughages	1.55	2.92	3.17	1.90	2.32	2.41
Total feed and forage	*21.52*	*26.38*	*22.81*	*12.57*	*13.61*	*12.26*
Bedding	0.64	0.80	1.26	0.14	0.12	0.05
Veterinary	7.62	7.50	8.21	6.21	6.24	6.26
Other costs	6.40	7.38	8.30	5.51	5.61	6.43
Total Variable Costs	**36.17**	**42.06**	**40.58**	**24.43**	**25.59**	**25.01**
Gross Margin	**58.86**	**50.49**	**57.39**	**26.09**	**16.03**	**19.60**
Fixed Costs	**45.60**	**53.08**	**49.35**	**38.55**	**38.70**	**41.78**
Net Margin	**13.26**	**(-)2.59**	**8.04**	**(-)12.77**	**(-)22.67**	**(-)22.18**

Physical Performance	**LFA upland sheep flocks**			**LFA hill sheep flocks**		
Average no. ewes	616	606	520	706	685	789
Lambs born/100 ewes	159	159	165	116	107	114
Lambs died/100 ewes	16	16	16	17	19	18
Lambs reared/100 ewes	143	143	149	99	88	96
Lambs sold/retained:						
Slaughter %	64	65	70	26	16	13
Stores %	19	21	13	40	46	51
Breeding %	17	14	17	34	38	36
Return per lamb sold finished (£)	71.99	75.76	72.34	63.46	63.29	60.63
Carcase weight lambs sold finished (kg)	19.6	19.6	19.8	19.8	17.1	17.3
Return per lamb sold store (£)	64.40	58.95	60.65	42.79	45.38	46.45

Results from lowground sheep flocks

	2012	2013	2014
		£ per ewe	
Number in Sample	12	12	12
Lamb Sales	**96.03**	**138.50**	**136.93**
Wool	2.97	2.67	2.58
Gross Output	**99.00**	**141.16**	**139.52**
Less replacement costs	12.41	14.30	13.19
Net Output	**86.59**	**126.86**	**126.33**
Variable Costs			
Concentrates	9.07	26.05	16.61
Forage cost	6.71	8.64	7.26
Roughages	1.34	3.06	4.25
Total feed and forage	*17.10*	*37.74*	*28.11*
Bedding	1.19	0.78	1.01
Veterinary	5.97	10.26	8.81
Other costs	7.53	8.01	8.18
Total Variable Costs	**31.79**	**56.79**	**46.11**
Gross Margin	**54.80**	**70.07**	**80.22**
Fixed Costs	**46.03**	**43.28**	**45.48**
Net Margin	**8.77**	**26.79**	**34.73**
Physical Performance			
Average no. ewes	348	585	598
Lambs born per 100 ewes	150	177	174
Lambs died per 100 ewes	16	16	14
Lambs reared per 100 ewes	134	161	160
Lambs sold/retained:			
Slaughter %	64	81	86
Stores %	21	4	4
Breeding %	15	15	10
Return per lamb sold finished (£)	73.76	89.78	86.31
Carcase weight lambs sold finished (kg)	17.5	21.9	20.00
Return per lamb sold store (£)	36.43	70.42	67.10

Store lamb finishing

	2012	2013	2014
	£ per lamb		
Number in sample	13	14	12
Lamb Sales	**64.99**	**74.74**	**70.91**
Less store lamb purchase costs	51.38	52.75	49.34
Output	**13.61**	**21.80**	**21.57**
Concentrates	5.85	5.92	4.08
Other feed	0.18	0.22	0.95
Forage	0.93	2.13	0.90
Total feed and forage	*6.97*	*8.27*	*5.93*
Bedding	0.14	0.10	0.02
Veterinary	0.77	1.63	1.24
Other costs	4.57	3.69	4.04
Total Variable Costs	**12.45**	**13.69**	**11.23**
Gross Margin	**1.15**	**8.11**	**10.33**
Fixed Costs	**4.64**	**4.43**	**4.42**
Net Margin	**(-)3.49**	**3.68**	**5.92**
Physical Performance			
Feeding period (days)	100	102	110
Liveweight at start (kg)	32.6	33.5	31.6
Liveweight at finish (kg)	39.5	41.1	38.2
Mortality (%)	2	1.7	1.5
Concentrates (kg)	21	22	18
Average carcase weight (kg dwt)	18.6	19.3	18.0

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 which 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 and casual wages.

Contract: All contract labour and contractor services.

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

Property maintenance and 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.

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 is estimated to be half of the total variable and fixed costs for the year.

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