Reduce waste to help maximise beef margins

Margins at Williamswood Farm, Nottinghamshire, are dictated by changes in farm management and not in beef price, Harper Adams beef focus farmer Ian Willison tells **Michael Priestley** in our final update

Ian Willison believes farm output is something he has a degree of control over, unlike market volatility. For him, rearing 98.8% of calves born each year from bulls with high estimated breeding values (EBVs) is paramount to having a margin in the beef industry.

Currently, gross margin stands at £804 for every cow in his autumn-calving Simmental cross Blue suckler herd, some 63% ahead of the English average.

This level of achievement hinges on low mortality, efficient feeding and a practical system for the environment, which for Mr Willison is based on investment in the "golden triangle" of genetics, health and nutrition.

Vaccinations and replacement rearing are therefore not strictly seen as costs, explains Mr Willison, who regularly scrutinises his business on a cost-of-production basis.

Instead, money spent on vaccines and replacements is seen as an investment and a critical part of the most important figure on the accounts sheet – financial performance a cow.

"I don't like to see mortality increase," stresses Mr Willison, who is part of the Biobest health scheme, under which the farm is accredited for BVD, IBR, neospora and Johne's.

"The scheme's had a massive effect in keeping mortality to a minimum. It is worth £5,000/year in benefits and costs about £1,000, so it's a no-brainer," he adds.

Also important is the ability to maximise the beef cheque by hitting abattoir specs. This requires keeping an eye on the marketplace and finding premium outlets for heifers.

Last year's silage-and-blend-finished bull calves yielded carcass weights of 398kg at 13.3 months, meaning daily carcass gains from birth were 0.98kg and DLWG from birth to slaughter averaged 1.68kg.

FIVE-YEAR ROLLING COSTS

Farm accounts and business benchmarking are seen as a critical step in managing what is going on at farm level – the element over which a farmer has most control, stresses Mr Willison.

He values the insight of "people on the outside" who can draw on the experiences of other farms and enterprises to give an objective opinion. "I use a specialist livestock consultant who does costings for several beef and sheep farms," explains Mr Willison.

"Richard Elliot does a five-year rolling gross margin comparison. This is really useful as it benchmarks one year against another to see where we are progressing."

The business has seen a steady increase in margin over the past five to 10 years.

"It's vital on two counts; it shows what is working and, importantly, what is holding the business back. Nine times out of 10 margin falters not because of the price of beef in the market, but because of something going awry on the farm."

Knowing cost of production allows Mr Willison to appreciate the year's margins can lift, despite fat cattle prices dropping. It could be due to gains in productivity or falling feed costs.

"We have had lower feed and diesel costs over the past year or so and we can see how this has played out by looking at the five-year costings, which are simply represented in five columns side by side.

MISTAKES THAT RESULTED IN LOWER MARGINS

"We have had a few blips," admits Mr Willison. "One year I tried cutting costs by mixing apple pomace in the bull ration.

"We were running low on barley and against the advice of my feed merchant, I gave it a try. The end result was poor and I didn't achieve the same kill-out percentage.

"Another year our cows weren't stacking up as well as they had been on paper. This was flagged up by the five-year analysis Richard does and we found calf mortality had increased and fertility was affected.

"That said, if I make a change and it pays performance-wise, then I'm not worried about the added expenditure. I believe you only get out what you put in.

"Now if I tweak my system and add in a few more cows, probably ending up with no more than 95-100 head overall, it might be interesting to see where margin and farm profit will head."

✱ You only get out what you put in
Ian Willison


JIM VARNEY

Ian Willison invests in herd genetics, health and nutrition

PROFIT IS IN THE WASTE

A 32-horse livery yard and rented shed space for caravan storage are sideline enterprises to the expanding suckler operation, with cow numbers currently hitting 93 head.

Fixed costs are split 60:40 (60% cows: 40% livery yard) because all equipment is used to the benefit of both enterprises, barring the cattle-only feeder wagon and bedding machine.

Mr Willison is considered full-time on the farm and his wife Lorraine manages the stables.

Integrating the livery yard and the cows is key to making sure money spent is not wasted and this starts with bedding.

Straw is sold into the equestrian unit, used by the horses, and then recycled as cattle bedding the following day.

Waste is also reduced within the beef unit by feeding a TMR ration, which minimises forage waste compared to ring-feeding silage.

"With bedding and feed it's already cost you to produce or buy it, so don't waste it," he says.

THINGS YOU CAN'T DO WITHOUT

In terms of machinery, several purchases over the past three years have increased labour efficiency on-farm but eroded farm margins, admits Mr Willison.

In growing the herd from 75 to over 90 head since 2013, the justification has been that one front-end loader and one 100hp tractor for the farm and the stables was stretching it a bit far – something had to give.

"It was wearing both me and the tractor out," says Mr Willison, who added a feeder wagon, a bedding machine and a second 100hp tractor.

The fixed costs of the loader and two tractors were then shared across the beef and livery businesses.

"Adding to my machinery saves my time as I'm not swapping machinery around and it means the tractors will last longer."

The £10,000 feeder wagon cuts feed waste, meaning output can be increased from having more cows and was traded in for a £3,000 mill and mix unit, which was rotting in the sheds.

The feeder can be justified because tractors and other fixed costs can be shared over two businesses, says Harper Adams University beef specialist Simon Marsh.

"The good cashflow of both enterprises allows investment sooner and with less finance than would be the norm," details Mr Marsh.

"The livery side enjoys the use of machinery and labour from the cow side to make hay, cart straw, remove muck and do all other field work."

This is why costs are shared the way they are, he adds. "Cows shouldn't carry the rent, water and contracting costs on their own.

ACCOUNTING FOR HIGH PERFORMANCE

Exceptional bull calf performance is also a major factor in achieving a gross margin of £804 a cow at Williamswood, explains Mr Marsh.

Farm records show the 13.3 month-old Simmental-cross bulls gross £1,378 and non-retained heifers make £1,300 at 15 months when sold to pedigree breeders for embryo transfer work.

The same valuation has to be placed on his homebred 22 to 23-month calved replacement heifers. However, this makes replacement costs look steep at £80 a cow compared with AHDB figures levelling at £50 a cow.

Meanwhile, due to attention to feeding, feed and forage costs may look high, but Mr Marsh stresses this is producing bulls at 398kg carcass weight (48kg above the AHDB target), which is worth £158 a bull at £3.30/kg dwt (dead carcass weight).

In terms of bedding, the £55 figure is "very debateable" but a bone of contention for the beef sector as a whole.

"Most suckler farms should be on a 'straw-for-muck' agreement and therefore have zero bedding costs," says Mr Marsh.

"And in terms of mixed units, why should the arable land on a mixed farm get free farm yard manure from the beef operation?

"Also of concern are the diminishing organic matter levels in soil, which can be helped by cattle in a rotation, along with controlling blackgrass."

WILLIAMSWOOD SUCKLER HERD MARGINS

	AHDB rearer/finisher		
Financial performance (£ a cow)	**Average**	**Top third**	**Ian Willison**
Calf output	1,013	1,084	1,298
Replacement costs (with incoming calves)	52	47	80
Output less replacement costs	961	1,037	1,218
Variable costs			
Purchased feed (including minerals)	181	117	136
Home-grown feed	50	43	37
Purchased forage	18	29	0
Home-grown forage variable costs	73	45	82
Total feed and forage	322	235	255
Vet and medication	44	34	43
Bedding	61	58	55
Other livestock expenses	42	43	61
Total variable costs	**469**	**370**	**414**
Gross margin/cow	**492**	**667**	**804**

Source: Richard Elliot, Livestock & Business Consultant


JIM VARNEY

The farm is part of the Biobest health scheme, which gives accreditation for BVD, IBR, neospora and Johne's

TOP TIPS FROM SIMON MARSH

- ✱ View replacement costs as an investment
- ✱ Concentrate on cow genetics as much as the bull
- ✱ Join a health scheme
- ✱ Make sure all enterprises dovetail
- ✱ Justify investment in machinery to significantly improve efficiency
- ✱ Think "health, nutrition and genetics" – a weakness in one and the others will suffer
- ✱ Profit follows adopting the "science of beef production". Be wary of the "smoke and mirrors" in the beef industry

2015 CALVING PERFORMANCE

Birth weight (kg)	47.1
Calving ease (1-6)	1.28
200-day weight (kg)	335
DLWG (kg)	1.44
Cow weight (kg)	667
Efficiency (kg calf/100kg cow weight)	50.2

Calving ease score: 1 = unassisted, 6 = caesarean