

CASESTUDY

Focus on transition cow feeding improves lactation performance...

Managing forage variabilities which were stopping cows express their natural potential led Scottish dairy farmer Andrew Paterson (pictured) to adjust his close-up ration and give his cows the best possible start to their lactation.

Andrew milks 220 all-year round calving cows at Woodend Farm in Balfon, Stirlingshire and has to cope with some pretty wet conditions which affect grass silage quality.

"I try to cut early for first cut to ensure quality if not quantity, but it's not always possible and we certainly have more problems with second and third cuts," explains Andrew. "We often find cuts are late and the crop can be mature."

Silage dry matters, energy and calcium levels can be hugely variable and protein levels are also a real issue for Andrew. "We've got some of last year's second cut in the clamp at the moment with crude protein (CP) at 8%," he says.

Philip Ambler, ForFarmers Technical Manager, began working with Andrew about three years ago and reviewed the farm's technical and financial performance.

"Our first step was to work out where to concentrate efforts in the future," says Philip. "We identified the transition period and heifer rearing, as two areas that could have significant impact on future performance.

"Forage quality, particularly protein levels, were a real issue for the transition diet. There were issues with metabolic problems after calving and milk yields seemed to be taking a while to get going once cows had calved. We both felt the key lay in the close-up diet."

Across the dairy herd at Woodend Farm, Andrew and Philip are keen that everything added to the diet has to be justified financially. They looked to see where they could get the highest rate of return for any investment and the dry period, particularly close to, was ideal.

Andrew and Philip kept to the base diet of grass silage, finely chopped straw (to avoid sorting) and the milking blend, and for two weeks before calving they added 2.5 kg of ForFarmers TRANSLAC Advance (complete transition cow compound), which includes a calcium control system, to help manage the mineral variations within the forage.

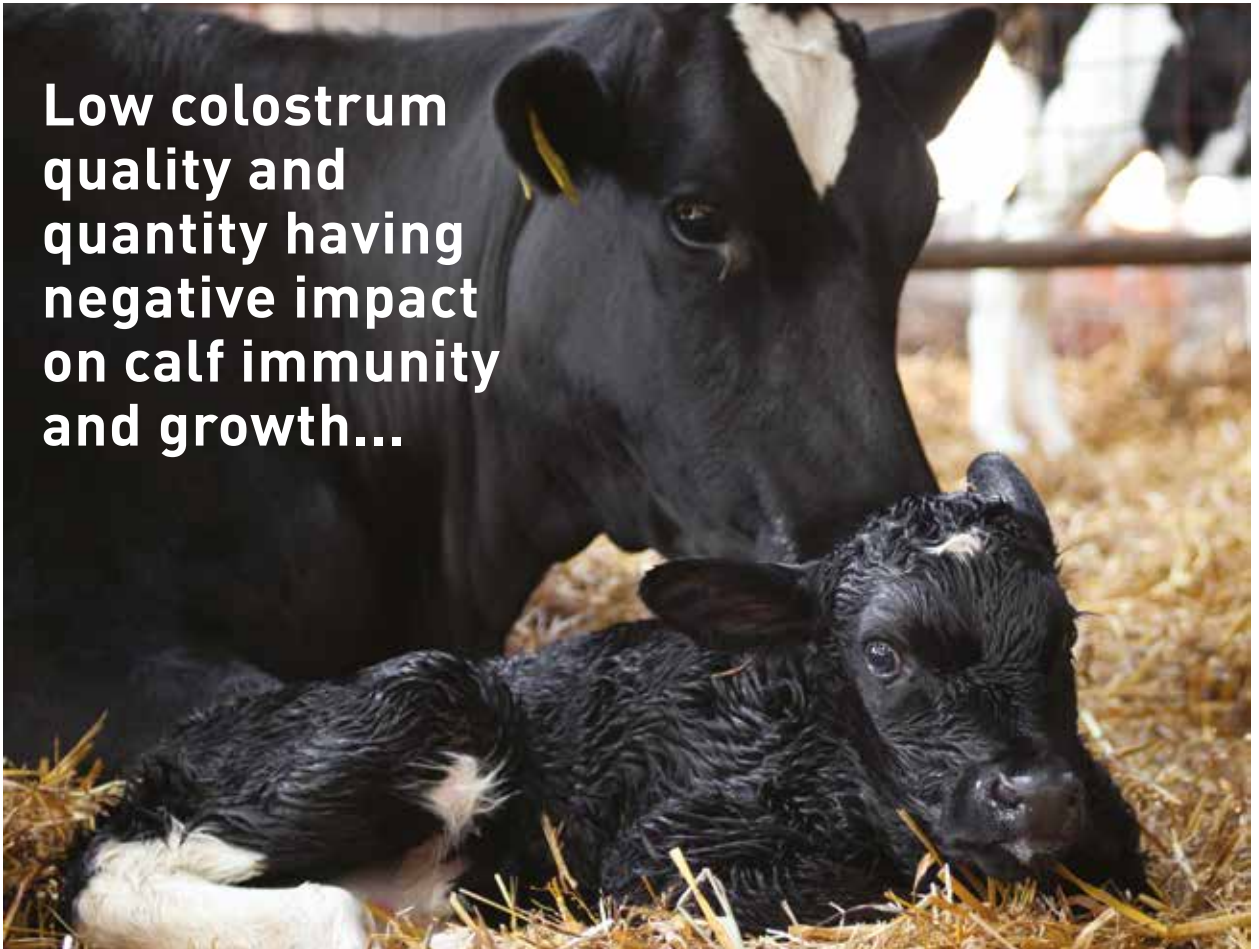


Andrew has noticed cows calving down easier, fewer issues with milk fever and cows are coming into milk strongly at the start of the lactation. Cows yields are peaking higher and sooner than previously and the lactation curve is flatter, with a slower rate of drop off towards the end.

"We're not seeing the ebbs and flows in the lactation curve we used to and milk production has become stronger and more consistent," explains Andrew. "Cows seem to be coping with the variation in forage quality well."

Philip continues; "I think the thing I find most encouraging is we haven't gone all out to chase that extra milk. Instead we've sought to identify barriers preventing the cows from being able to express their natural potential and looked to correct them in the most economical way.

Low colostrum quality and quantity having negative impact on calf immunity and growth...



Recent research from the UK and across Europe has shed new light on just how close the relationship is between the transition diet and colostrum yield and quality, and therefore the immunity and growth of the calf.

The 2015 ForFarmers study, using 1,900 cows and 1,500 calves in the UK, Germany and Netherlands showed nearly 40 per cent of cows were producing less than three litres of colostrum at their first milking and twenty per cent of cows gave colostrum of poor quality (less than 50g immunoglobulins (Ig/l)), in that first milking.

The research also showed the clear relationship between high levels

of IgGs in first colostrum feed and high serum IgGs in the calf's blood demonstrating the connection between the two.

The study looked closely at transition cow nutrition focusing on crude protein (CP) levels in the close-up diet of the cows and what effect, if any, it had on the calf. Calves from cows with less than 12% CP in the close-up diet were shown to have a higher risk of failure of passive transfer of IgG (calves were shown to have less than 10 mg/ml serum IgG), compared to those cows fed 12-14% CP and those fed more than 14%.

Nutrient supply influences the development of the calf during gestation. Maternal protein level,

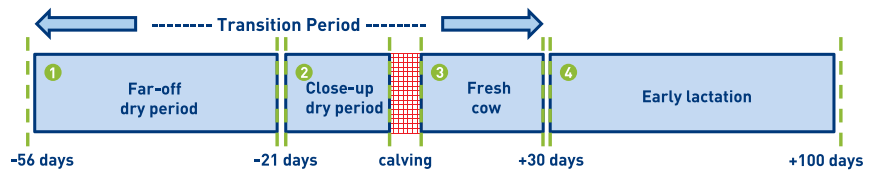
particularly in late gestation, influences the birth weight and small intestinal development of the calf. With an adequate level of CP content in the close-up diet (up to 14%) more calves have a high serum IgG and, therefore, higher immunity.

"This research shows that if you have a specific nutrition programme for the last three weeks of the dry period (which controls calcium or Dietary Cation-Anion Balance) it boosts the number of antibodies in the calf's blood, and increases the immunity of the calf via the high quality colostrum it receives and better development of the calf in late gestation," says Nick Berni, ForFarmers Ruminant Product Manager.

FOCUS ON TRANSITION



Fig 1 - Transition period stages



Correct nutritional management of the transition cow is critical for improving milk production in the following lactation minimising the risk of metabolic problems and maximising calf health.

It is the most important period in the production cycle of the cow. Research shows that more than 80% of health and performance problems occur due to poor management and nutrition during this period.

Better transition cow nutrition can result in:

- Easier calving
- Improved calf performance
- Better cow health
- Improved cow performance

The transition phase for dairy cows consists of the dry period (far-off and close-up), calving and the start of

the next lactation. Each stage has its own specific nutrient requirements which help to improve health and performance. See Fig 1.

This spring sees the launch of ForFarmers TRANSLAC nutrition programme designed to provide key nutrients for each stage of the transition period.

By focusing on key areas of transition cow nutrition, significant performance improvements and cost savings can be made. This could realise more than £11,000 or 1.5 ppl per 100 cows. ForFarmers TRANSLAC nutrition programme is designed to improve performance and profitability by giving the cow and calf the best possible start.

Cases/100 cows	Average	Top 25%	Cost/case (£)	Difference (£)
Mastitis	50	21	248	7,192
Milk fever	6	2	214	837
DAs	2	1	255	255
Difficult calvings	5	2	381	1,143
RFMs	7	4	378	1,134
Metritis	9	4	197	985
Total				11,516

Source:Kingshay

KEY FOCUS AREAS FOR TRANSITION COW NUTRITION

- **Condition score - reduce calving difficulties**
- **Liver function - improve energy balance**
- **Rumen development - Improve DMI and energy balance**
- **Calcium Balance - minimise the risk of milk fever**
- **Protein supply - repair tissue and boost colostrum quality**
- **Vitamins & trace elements - improve immunity and colostrum quality**
- **Forage - improve rumen health and development**
- **Cow Health - minimise the risk of DAs, Metritis And RFMs**

Giving cows a better start
Following the ForFarmers TRANSLAC nutrition program will help you to improve transition cow management. TRANSLAC products are formulated to maximise production and boost health across all dairy systems.



For more information about the full TRANSLAC product range, and how it can benefit your system, speak to your local account manager or go to www.forfarmers.co.uk

NEW NATIONAL AWARDS

ForFarmers first awards programme



In 2016 ForFarmers will hold its first awards programme. The Excellence in Farming Awards have been designed to recognise and reward farmer customers who are excelling in one of the three award categories.

Technical excellence is crucial in all aspects of dairy farming in order to ensure the future viability of farming businesses. These awards will showcase some of the best examples of system efficiency in UK dairy farming.

Awards structure

The awards will be split by region (north and south) and by the following categories:

- Dairy Feed Efficiency Award
- Youngstock Producer Award
- Forage Manager Award

Applications close at the end of June, with judging taking place in July and August on a regional level. A shortlist of three finalists from the north and three from the south will be announced at the South West Dairy Show on 5th October at the

Bath and West Showground and AgriScot on 16th November at the Royal Highland Centre, Edinburgh.

The winners will be announced at an awards ceremony at The Farmers Club in London on 24th November.

What are the judges looking for?

Dairy Feed Efficiency Award

The judges for this award will be looking for an ability to achieve appropriate cow nutrition while driving feed efficiency – the correct feeding regime makes a significant difference to milk output, milk quality and the sustainability of the herd.

Youngstock Producer of the Year

The judges will be looking for an individual who knows how to get the best from their youngstock, from feeding to rearing and management as a foundation to maximise the health of the future dairy herd.

Forage Manager of the Year

The judges will be looking for an individual who knows how to get the best from home-grown forages,

from growing, preserving and storing through to feeding, in order to maximise the production and health of their dairy cows.

To find out more about the ForFarmers Excellence in Farming Awards ask your local account manager.

UPCOMING SHOWS

18TH -21ST JULY

Royal Welsh Show

Builth Wells. LD2 3SY

14TH SEPTEMBER

UK Dairy Day

International Centre, Telford
TF3 4JH

25TH OCTOBER

Welsh Dairy Show

United Counties Showground
SA33 5DR

16TH NOVEMBER

AgriScot

The Royal Highland Centre
EH28 8NB