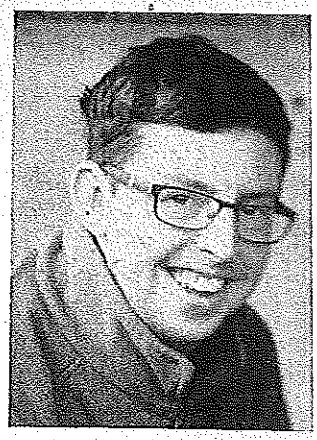
After attending AHDB Dairy calf to calving events, Andrew Wallis and Tony White made changes to boost growth rates.

Driving calf growth



Greater understanding of the energy young calves need to maintain themselves and grow has led to improved growth rates and better thrive at Home Farm, Sherborne, Dorset.

For Tony White and nephew Andrew Wallis, attending an AHDB Dairy calf to calving meeting proved to be the 'light-bulb moment' which instigated big changes in how they manage replacements.

Mr White says: "The meeting was focused on what milk powder was worth in MJ per day, the calf's energy requirements to stand still and what it needs to put weight on. This was something we had never considered."

Calves less than three weeks old receive nearly all their energy from milk. This means it is essential the young calf receives sufficient energy from milk feed in order to grow.

Cold winter temperatures add further challenges as the calf needs more energy to keep warm. Consequently, milk feeding rates need to be raised so calves can maintain themselves and grow.

Mature

This is crucial to ensure calves achieve growth rates of 800-900g per day to calve at 90 per cent of their mature weight at the most economic age of 24 months. If growth rates are not sufficient, heifers could calve later at a cost of £2.87/head for every day over 24 months.

After running through the milk feed calculations for their calves Mr Wallis says it was clear calves were not receiving enough energy + growth was being compromised.

"We looked back and realised we were under-feeding them."

This meant the farm was experiencing higher than desirable levels of calf mortality and poor growth rates in the early milk feeding period, which was impacting on age at first calving.

Mr Wallis says: "We had already put in a new calf shed with concrete panels, but it was suggested if the calves were lying against the cold concrete panels, this was lowering

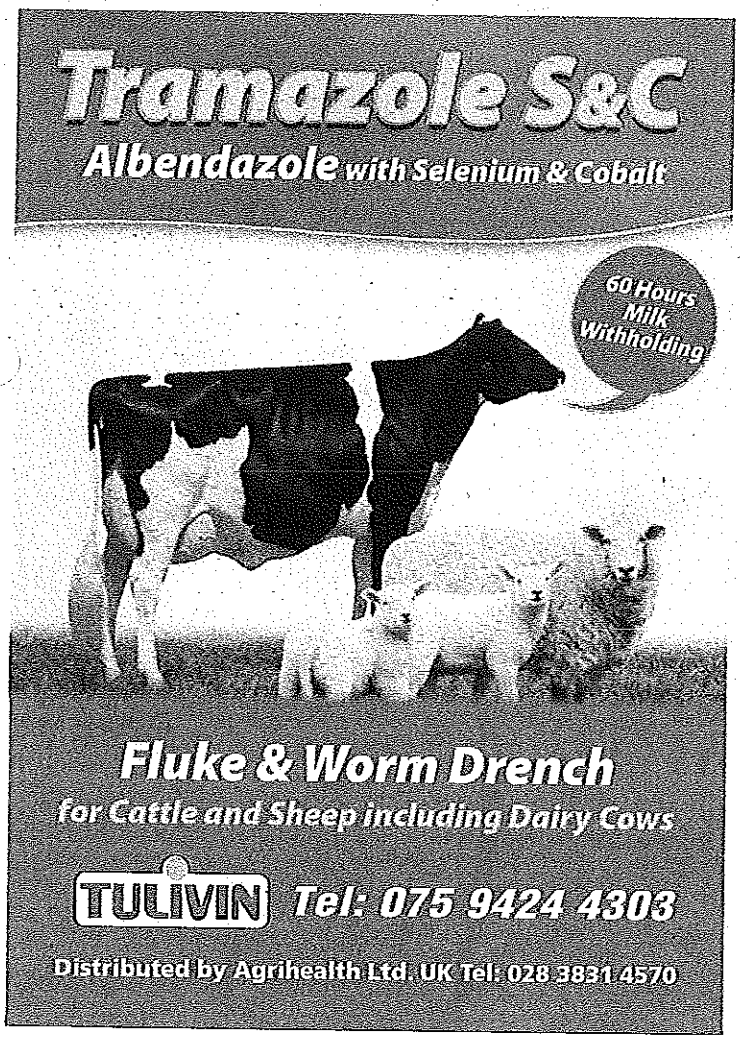
Changes to calf milk replacer rates

Before attending the AHDB Dairy Calf to Calving meeting:

- Calves were fed a total of 750g/day, split into 125g/litre of calf milk replacer (CMR) across three litres, fed twice a day
- This was delivering 13.96MJ/day of energy, which was not enough energy to support 700g of growth/day at 15degC, let alone achieve adequate levels of growth during cold winter days

After attending the meeting:

- Milk feeding rate was increased to 180g/litre over three litres, twice a day, to total 1.1kg/day, with plenty of access to fresh water. This delivers 20.47MJ/day and supports growth of 800-900g/day
- As rule, for every 5degC drop below 15degC, an extra 50g of CMR should be fed to calves less than three weeks to achieve optimum growth rates







Newborn calves are given jackets to reduce their energy needs when temperatures drop below 15deg

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ANDREW WALLIS

their body temperature in winter. So what we were feeding was not even meeting maintenance."

The farm made a number of changes, including:

- Feeding calves six litres of colostrum within the first 24 hours.
- Using a refractometer to identify and feed high quality colostrum.
- Steam cleaning and resting the calf shed once a year.
- Weighing heifers at birth, and at four and eight weeks old, with weigh bands used up to six months.
- Feeding a higher calf milk replacer at a higher rate.
- Putting small straw bales against concrete panels to stop calves lying against them. Bales are also put under doors to prevent drafts.
- Using calf jackets on newborn calves when temperatures drop below 15degC.

Benefits

Since making the changes, Mr Wallis and Mr White have witnessed marked improvements in performance, which they hope will reduce costs.

Mr Wallis says: "They look so much better; less 'starey' when coated and a lot happier. You get a lot less hollering at feeding and they just look better in general."

Mr Wallis' records prove heifers are surpassing targets. One pen averaged 900g/day over 30 days, while a second pen had animals achieving 1.1kg/day which even saw the worst performing animal hitting 950g/day over 60 days.

Mr Wallis says: "This has reduced our costs and put heifer rearing at the forefront of our minds. It has given me a target and renewed interest. Now we have animals calving at 22-26 months. They seem to get in-calf a lot quicker. We are breeding a young herd now.

"By calving younger, we are reducing costs and hopefully improving fertility as they will be in better condition when they come back round to be served.

"Hopefully the longevity of heifers will be better too."

