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There is a theory that in a year of low pasture growth we should be weaning calves earlier so that more high quality feed can be apportioned to the calf to optimise its growth rate.

Low pasture growth will typically mean cows will not reach peak milk as intended and will definitely not be able to maintain a high level of milk production for an extended period of time, unless cows are prioritised over ewes.

Another theory is in a high pasture growth year, we typically find a lot of seed head and poorer quality feed – the cow, including calf, is used as a tool to control this so that there is quality feed for ewes and lambs.

By pushing the cow to act as a hay baler she tidies up the feed, but milk production is typically compromised.

If calves are not weaned before Daisy is asked to do a job, the calf is also offered the sub-optimal quality feed, and the compromise of milk production through sub-optimal feeding of Daisy induces reduced liveweight gain of the calves.

Questions we therefore need to ask are:

- Do we wean at 200 days because the beef operation is typically less profitable than sheep?
- Do the cattle not perform because they have been dedicated to the job of grooming the pasture for the more profitable enterprise?
- Is the reason the cattle are less profitable because of the way we manage the progeny?
- Once calf-weaning to cows-mated exceeds 92% the cow itself could be considered performing well reproductively, but can we improve the profitability of the calf?

As part of the final year of the Beef+Lamb New Zealand red meat profit partnership, at Redcliffs Station we considered a plan of how we could generate a greater revenue from the beef operation, targeting the growth rates of the calves but with no other changes to the system.

Traditionally Redcliffs has weaned at about 200 days of age. The scenario considered looked at weaning at 127 days of age (February 20).

Weighing at marking in February 2013 indicated the growth rate of the calves over the 70 days prior to weaning was a little under 0.215kg/day and cows lost condition.

The average pre wean growth rate was 0.8kg/day, meaning the pre-marking growth rate was 1.15kg/day if the post wean growth rate was 0.215kg/day.

Instead of 210kg on June 1, the target is 260kg, or 50kg heavier – this gain must be achieved through an increase in the post marking growth rate increase.

Feed at Redcliffs, as for many farms during February to April, is tight with the last lambs and flushing of ewes getting the priority of quality pasture.

To balance out the feed deficit for the cattle at Redcliffs, summer rape and fodder beet with straw and silage are the feeds considered to buffer through to the winter period.

Farmax modelling indicates growth rates averaging 0.8kg/day post marking are achievable, which is supported by the preliminary findings of Jim Gibbs, of Lincoln University, in fodder beet trials with dairy and beef cattle.

Assuming: balage costs of 40c/kg DM fed; silage costs 32c/kg DM fed; hay costs 24c/kg DM fed, rape costs $650/ha to establish and yields 5 tonnes DM/ha dryland; fodder beet costs $2000/ha to establish and yields 22t DM/ha dryland; regrassing costs of $600/ha.

The program proposed to continue to sell heifers and steers as store (Five Star Beef) on a season average prime beef schedule of $4.10 equivalent.

Through a higher level of nutrition for the calves, the sale weight is forecast to increase by 25kg LW for the heifers and 47kg LW for the steers.

As well as an increased sale weight, the average date is forecast to come forward from late March-April to mid or late December (110 days earlier).

Benefits:

- Direct financial – of an earlier weaning, after considering additional costs of production, is the equivalent of $80 per animal mated ($9.20/cattle su wintered)?
- Indirect non-financial – increase in average cover for the season of 200kg DM/ha?
- Indirect financial – we could feed the 200kg DM/ha of additional cover to existing ewes to improve performance of lambing, assuming 15kg DM to increase 1kg LW on ewes, where 1kg LW = 3% survival in lambing – this could generate an additional 42.90/ha (8.18/su)?
- Indirect financial – we could feed the 200kg DM/ha of additional cover to existing cows to improve performance of calving, assuming 15kg DM to increase 1kg LW on cattle, where 5kg LW = 1% calf survival, this could generate an additional 29.80/ha (5.68/su)?
- Indirect financial – we could bring lambing or calving earlier to target earlier, higher schedules?
- Indirect financial – we could hold lambs longer and grow them heavier using the 200kg DM/ha additional cover which could generate an additional $32/ha ($6.12/su)?

- Preserved cow condition rather than deterioration in condition post marking – less pressure to regain condition after weaning?
- Greater wool weights?

Risks/Disadvantages:

- Increased labour and fuel due to more summer break feeding and feeding of supplements
- Dryland crop yield risk
- Increased cropping costs.

Summary:

Early weaning of beef calves may potentially generate between $3.02/su and $11.20/su of additional earnings before interest and tax – on Redcliffs at least.

In order to guarantee better growth rates in finishing cattle, summer, autumn and early winter feed is required which comes at a financial and pasture area cost. A high yielding crop like fodder beet can preserve the pasture area by growing a greater bulk on a smaller area – quality feed will give quality results.

To make this programme successful the key is maintaining post marking growth rates at 0.8kg/day or more up until winter and then growing fast in the spring to get the stock off-farm by end of December before the next crop of calves start demanding more feed.

Only through weighing and monitoring of the cattle can sub-optimal performance be identified.

Without robust information you cannot make robust decisions. The maxim is – measure, plan, act, monitor.

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