Sustainable Farming Fund dexcel Partners in profitable dairying Dairy InSight

Dexcel Super P Farmlet, Scott Farm, Newstead- Farm Walk Notes

For the fortnight 8th November – 21st November 2006

Target: 1750 kg MS/per total ha used. 200,000 MJME harvested per ha
All feed grown within the milking area, 8ha, 29 cows. Herd $BW 211.
3.6 cows per ha.

Super P Farmlet: Feed Analysis Information and the Milksolids Yield drop:

Results from pasture samples taken at the time of introduction of maize silage to the Super P cows diet (October 25th), and again a fortnight later were surprisingly low in crude protein at 21% and 18%. Running the results through "Diet Check" confirmed that the diet offered to the herd (which included maize silage) was very likely to be deficient in protein as well as energy. Neutral detergent fibre levels were also slightly high, perhaps a result from our 24 day rotation at the time. Metabolisable energy in pasture was high at between 11.5 and 12.5 MJME per kg DM confirming our strategy on grazing residual for maintaining high energy pasture.

FeedTech Analysis: Pasture and Maize Silage from October 25th and from Italian ryegrass on November 7th

	Established Pasture (D9)	New pasture (C38)	Italian Ryegrass (C22)	Maize Silage
Crude protein %	21.64	21.08	18.73	7.93
ME MJ/kg DM	11.57	12.16	12.5	10.42
NDF %DM	41.44	44.42	43.25	41.89
Soluble Sugars and Starch %	13.95	16.96	20.38	33.47

Our conclusions are:

1) Total feed energy intake was limited by a low pasture allowance (less than 30 kg DM/cow/day on the 24 day rotation) resulting in potential pasture intakes of around 12 kg DM per cow per day. After allowing for substitution from feeding 4-5 kg DM cow of maize silage at 10.4 MJME there was an energy deficit of 13 MJ ME per cow per day for the level of production we were anticipating.
2) It is likely that we increased the quantity of maize silage too quickly for good rumen function. Cows were offered 4-5 kg DM just three days after maize feeding commenced.
3) We also had some issues initially with poor stack face management resulting in some heating and deterioration of maize silage at the face.
4) The combination of low crude protein in the pasture and the maize silage resulted in average crude protein content in the diet of 16.5 % when 18.5 %

was required. Low crude protein levels in pasture could partly be explained by low clover content in our new grass pastures (measured at 3%). Interesting though that Lincoln University is also reporting pastures at 21% crude protein, much lower than normal.

5) Our strategy of staying on a longer rotation (24 days v 18days) in anticipation of some extra pasture growth that we expected to capture with the higher stocking rate was in hindsight a contributing factor to the drop. It resulted in a pasture allowance that was too low (i.e. a reduced area per cow) with herbage mass higher than optimum.
6) Our revised strategy has been to increase the area of pasture offered to 1/18th of the grazing area, and reduce the maize silage by 2 kg DM per cow.
7) The aim of this strategy is to increase pasture intake and graze the pasture at lower herbage mass. This strategy is currently working well. Grazing residual has been maintained by mowing to waste 1 ha so far.
8) Milksolids yield has recovered to 1.65 kg MS per cow per day and 6.00 kgMS per ha per day.

Grazing Residuals for October:

For October we achieved the following pre and post grazing heights as measured by the Rising Plate Meter.

Farmlet	Pre Grazing RPM reading	Post Grazing RPM reading	Approx area offered per cow per day m²
Super P	19.3	8.4	86
Tight N	15.5	8.0	120

These measurements suggest that it is difficult to achieve the recommended post - grazing residual of 7 clicks on the rising plate meter from LUDF under the grazing management strategy and set of conditions we had.

Milksolids Compared to Target:

For the season to Nov 17th we are 79 kg MS per ha behind our target or -9.2% (see Graph). Year to date we have produced 772 kg MS per ha and 213 kg MS per cow.

Climate

10cm soil temperature 9am, Tuesday 21st November 16 ºC. A drop from last week 43 mm rain so far this month.

Current Situation:

- Stocking rate reduced to 4.83 cows per ha on 6 ha. (Dry cow and yearlings removed from herd)
- Pasture growth over the past fortnight has averaged 95 kg DM per ha per day. Average pasture cover has increased to 2640 kg DM per ha. on current grazeable area and has increased to 1980 kg DM over the whole farm.
- We require pasture growth of 77 kg DM per ha per day to maintain the 18 day rotation. The aim is pre grazings of no more than 3000 kg DM per ha and

residuals of 1600 kg DM per ha from 0.33 ha offered per day. Current growth rates mean we still have slightly higher pre-grazings levels than targeted.

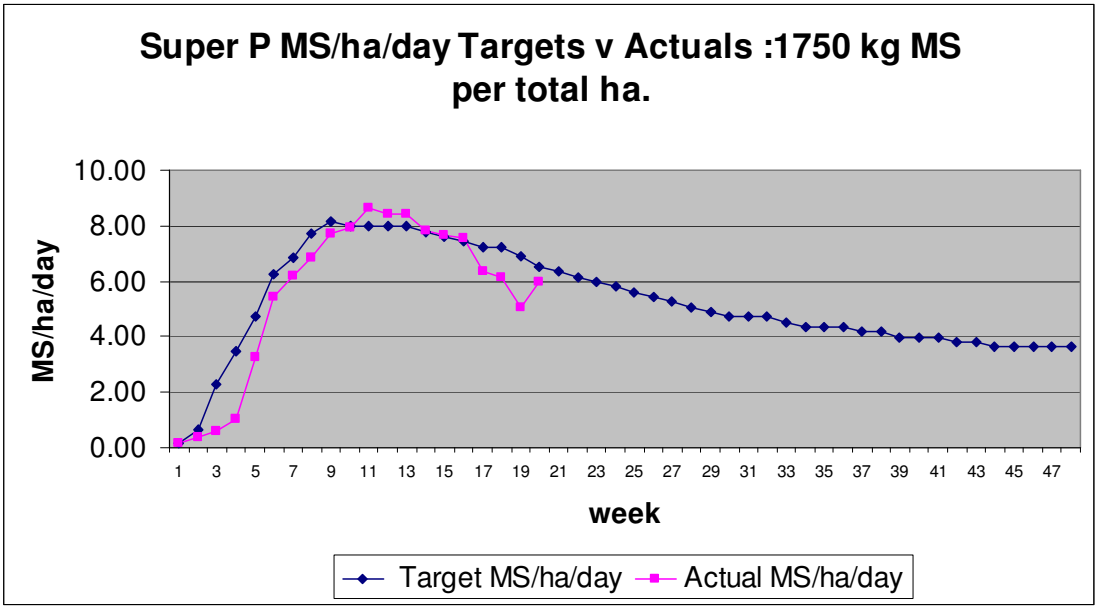
- Our risk management strategies for this rotation are:
    - Mowing pastures if grazing residuals increase above target. (1 ha mowed already).
    - Due to current growth rates we have tentatively removed 0.5 ha for silage. This puts us on a 17 day rotation.
    - We will follow the herd over the next rotation with dressings of 40-80 kg urea per ha.
    - If growth rates are below target for our faster rotation we still have maize silage to fall back on. A small amount of maize silage will remain in the system to allow for any transition in diet.
- Maize silage offered currently will be reduced by another 0.5 kg DM per cow per day to 2.5 kg DM per cow after a high of 5 kg a fortnight ago.
- Production peaked at 8.4 kg MS per ha per day and 2.32 kg MS per cow for a fortnight in late September. This dropped to 1.4 kg MS per ha and 5.08 kg MS per cow by 10th November and has recovered to 1.65 kg MS per cow and 6.00 kg MS per ha..
- 94% submission rate in 21 days of mating.
- 100 % submission rate in 42 days .
- At 49 days we have 17 cows out of 32 mated that have not returned.
- 53% NRR. (14 cows have returned and 1 cow mated too late to be included)
- 45% NRR for 11 CIDR treated cows.
- We have booked a scan on Dec 18th to determine 6 week in calf rate

Critical Issues for the Short Term (Super P Farmlet)

- Maintain pasture pre-grazing herbage mass in the range 2800-3000 kg DM per ha.
- Maintain milksolids production per cow at current levels.

Summary of Key Indicators for Grazing Management and Animal Performance

- Pasture Growth for last week is estimated at 95 kg DM/ha/day.
- The rotation length is 17 days or 1/17 th of the grazable area.
- Milksolids production per cow is 1.65 kg MS/cow/day.
- Milksolids production per ha is 6.00 kg MS/ha /day
- Cow liveweight and body condition score 8th November.
  481 kg and 4.0 Body Condition Score, 6 kg gain in a fortnight.



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