

Curtins Farm Walk Notes Tuesday 27-10-09

Low Stocking Rate Group (2.5 HF Cows/ha)

Critical Issues

- 1) Maintain post-grazing height at between 5 – 5.5cm
- 2) Maintain pre-grazing yield at 1750kg and rotation length at 40 days

Situation

Figure 1. Autumn Feed Budget

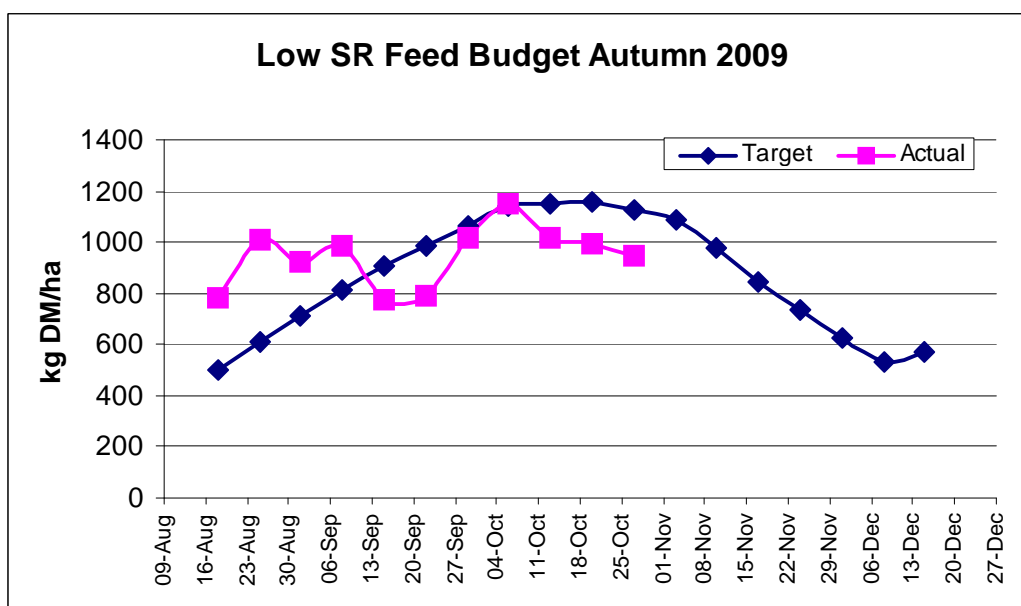
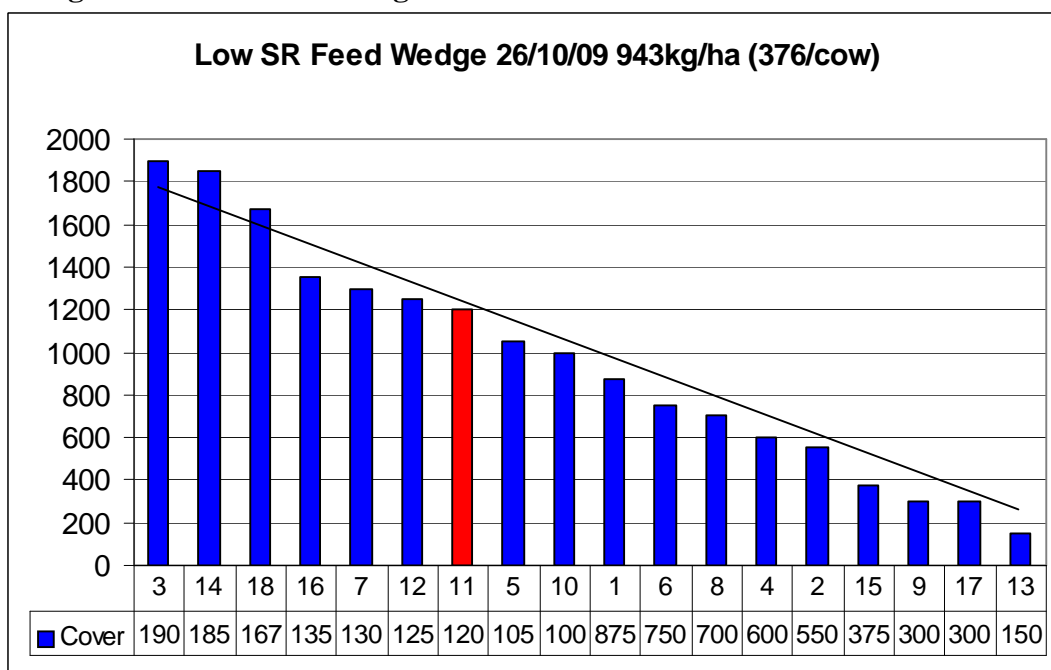


Figure 2. Farm Feed Wedge 26/10/09



- 1) As can be seen in figure 1, we are below target in terms of farm cover (1028kg vs 943kg). However the feed wedge is even with only a slight deficit in places (Figure 2).
- 2) 2kgs of concentrate is being fed per cow. There is justification for feeding more based on the farm cover but we are now in a 'trade-off' period between holding farm cover and closing ground for the winter.
- 3) Instead we are going to use lower levels of supplement, allow a reduction in farm cover and close up ground for spring while ground conditions and utilisation are good. This may mean having to feed extra supplement in November but our priority now is to set the farm up properly for next spring, thereby sticking to our closing targets (30% by 1st Nov, 60% by 15th Nov)
- 4) 30% of the farm is currently closed which is just slightly ahead of target.
- 5) Cows are currently on 36-hour allocations but this will be reviewed if weather and ground conditions deteriorate.
- 6) Block 11 (in red) is currently being grazed by the cows.
- 7) Target rotation length is 40 days.
- 8) Ideal pre-grazing yield is 1750kg ($2.51 \times 40 \times 15 + 250$)

High Stocking Rate Group (3.3 HF Cows/ha)

Critical Issues

- 3) Maintain post-grazing height at between 3 and 3.5cm
- 4) Maintain pre-grazing yield at 1716kg and rotation length at 40 days

Situation

Figure 3. Autumn Feed Budget

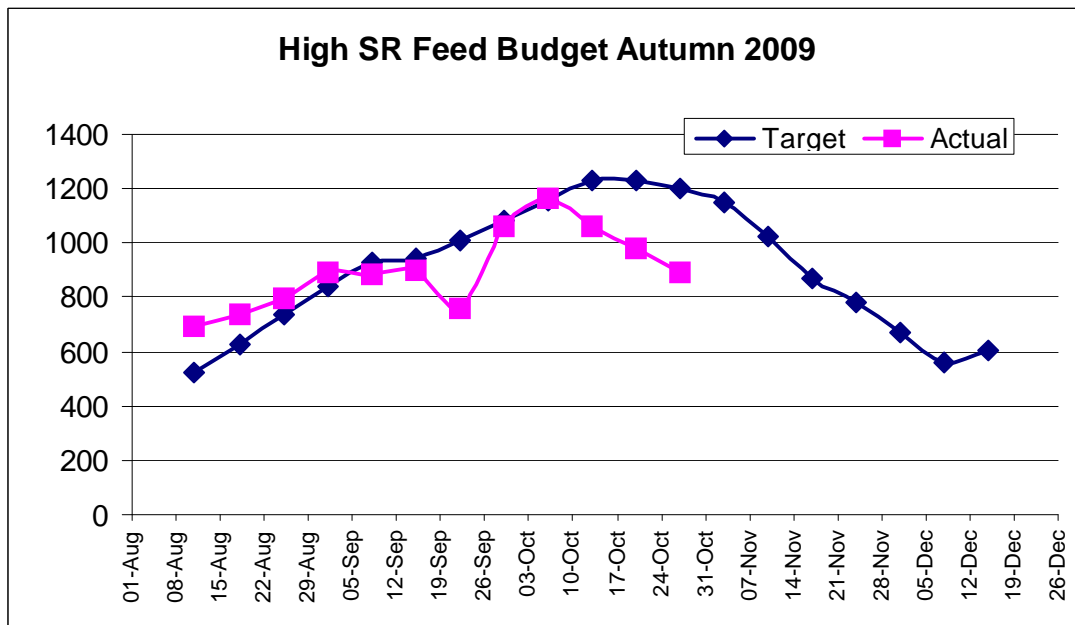
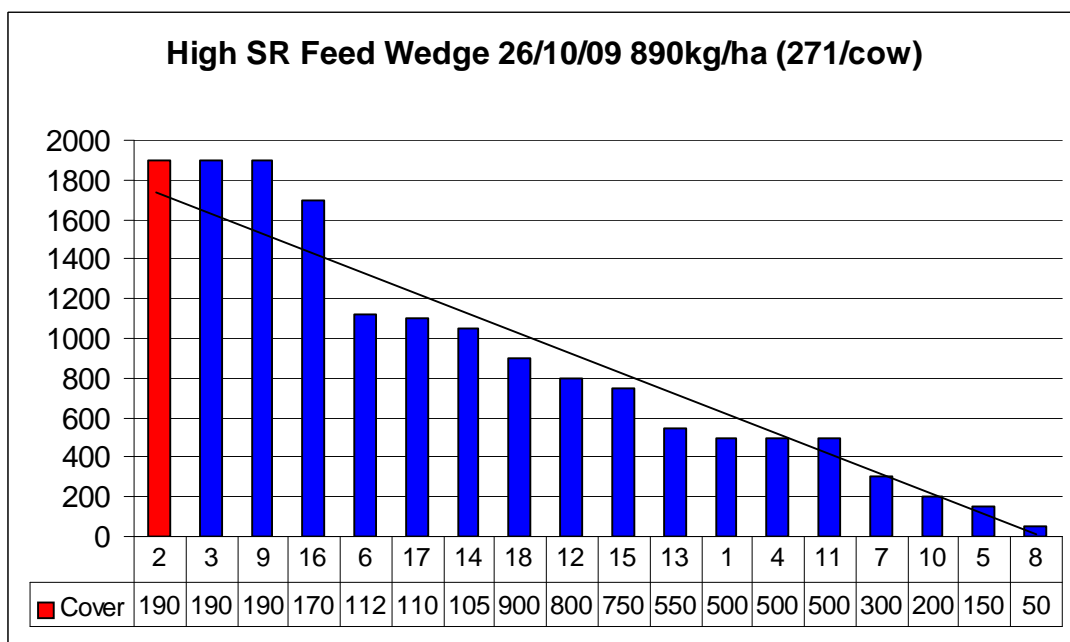


Figure 4. Farm Feed Wedge 27/10/09



1. As can be seen in Figure 3 we are below target in terms of farm cover and we have an uneven feed wedge (Figure 4). To counteract the reduction in farm cover 2kg of concentrate is being fed per cow.
2. The same closing targets apply to this group as they do to the low stocking rate group, above. 33% of this farmlet is now closed.
3. Block 2 (in red) is currently being grazed by cows.
4. Target rotation length is currently 40 days.
5. Growth rate on this farmlet was 34kg/day
6. Stocking rate is 3.3 cows/ha and with a 40-day rotation length our ideal pre-grazing yield is 1716kg ($13 \times 3.28 \times 40$).

Whole Farm Situation

1. Average soil temperature for the past week was 11.7°C, last week 12°C.
2. Total rainfall for the week was 38.6mm.
3. Average weekly growth this week was 34kg/day, average for the previous 3 years was 35kg/day.
4. Dry matters were 13% on Monday morning.
5. 250kg N/ha have been spread this year.
6. Latest milk quality test results from the milk processor are; Fat 5.0%, Protein 4.06%, Lactose 4.62%, SCC 128k, TBC 13k, Thermoduric 22, Sediment A.
7. Critical Short-term Actions:
 - a. Cows are currently on 36-hour allocations.
 - b. Maintain post-grazing height at desired level. As pre-grazing yields are increasing this is becoming increasingly harder to achieve.

Curtins Farm Systems Fertility Performance 2009

The current farm system comparison study at Curtins Farm encompasses three alternative stocking rate treatments. The three stocking rates compared are Low (2.51 cows per hectare), Medium (2.92 cows per hectare) and High (3.28 cows per hectare) stocking rates for Irish dairy farms post milk quotas. The objective of the study is to quantify the impact of stocking density within systems of production based on grazed grass with minimal external feed supplementation. The target grazing

intensity, in terms of post-grazing residual sward height for the low, medium and high stocking rate treatments was 5.5, 4.5 and less than 3.5cm, respectively over the season. Each group was managed separately and received a common level of concentrate supplementation. Early season grass growth in 2009 was below expectation and resulted in increased grazing severity for all treatments. Average post grazing residual height was 3.6, 3.4 and 3.3cm for the low medium and high stocking rates, respectively during rotation 1, while total feed allocation per cow per day was 14.0, 12.5 and 12.1 kg DM, respectively.

Table 1 below, outlines the influence of stocking rate treatment on reproductive performance during the 2009 breeding season. Breeding commenced on April 20th and finished on July 20th (13 weeks). Cows were bred to artificial insemination after morning milking using tail paint to aid heat detection. As evidenced from the Table 1, stocking rate had no significant effect on any of the reproductive variables measured. Reproductive performance and in particular pregnancy rate to 1st service and after 42 days of breeding across all groups was poor in comparison with target levels. While not significantly reduced, the poorer reproductive performance of the medium and high stocking rate treatments is consistent with their increased grazing intensity, reduced feed allowance and lower body condition score at AI when compared to the low stocking rate group. The provisional results indicate that the challenge for higher stocking rate systems will be to increase feed allocation in early lactation to achieve acceptable levels of reproductive performance while avoiding higher residual grazing height and pasture wastage.

Table 1. The Effect of Stocking Rate on Reproductive Performance

Stocking rate	Low	Medium	High	Significance
Calving date	22/02/09	24/02/09	21/02/09	NS
Submission rate (%)	87	74	80	NS
CSI (days)	77	80	82	NS
Preg to 1 st Serve (%)	48	37	44	NS
42 day in-calf rate (%)	65	57	54	NS
In-calf rate* (%)	80	74	78	NS
CCI (days)	94	105	104	NS

*13 week breeding season

