

Southland Monitor Farm Project

Weekly Update – 27 August 08

General Comments

Soil temperatures have risen this week with more mild weather. Rainfall across the region ranged from 7 to 18 mm. The drier conditions have enabled some farms to graze new grass paddocks that have accumulated high covers during the winter. Growth has been higher on all the farms this week, again a reflection of the more settled weather and warmer soil temperatures. The Demonstration farm, with the higher average pasture cover, continues to be the only farm not feed supplement. All other farms are feeding either PKE or grain.

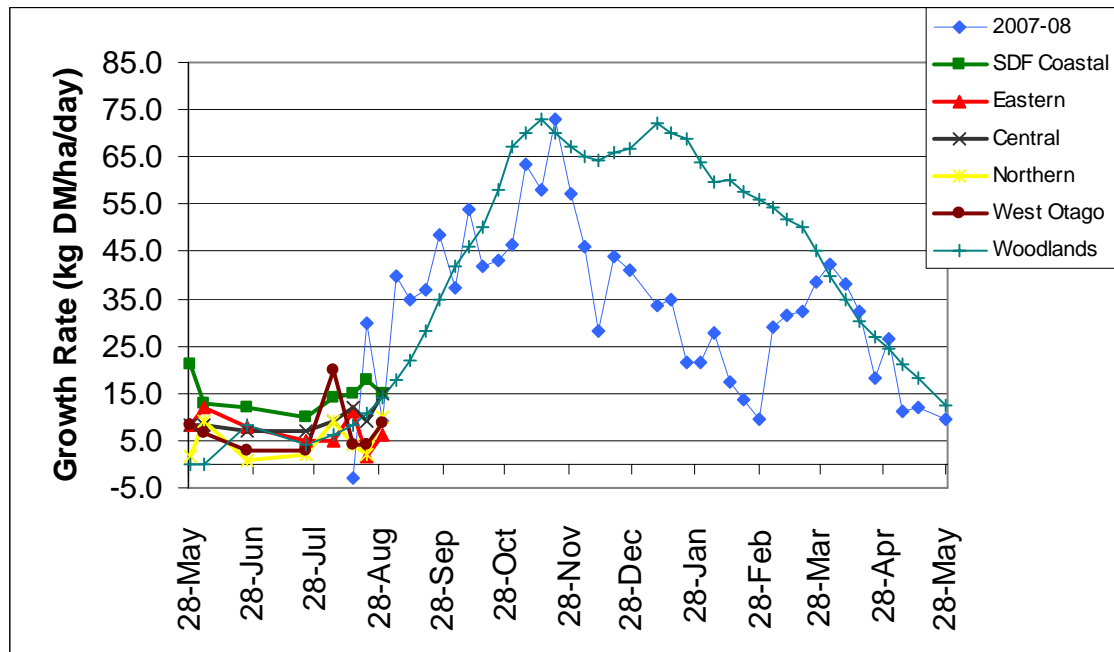
The West Otago farm and the demonstration farm have commenced their spring application of urea. The demonstration farm were planning to apply N to 50% of the farm this week and the west Otago farm has applied 35 kg N/ha to 4% of the farm.

Pasture quality results from last week indicate that quality has remained high through the winter. Soluble sugars have continued to rise on all but the Central Southland farm. Interestingly this farm currently has the highest crude protein concentration – around 28% whereas pasture samples from the other farms are in the 22-26% range. NDF concentrations are in the low 40% for all farms and ME ranged from 11.6 to >12.7 MJME/kg DM. The paddocks we were sampling during the winter have now been grazed so we will resume sampling from the next 2 longest paddocks on the farm.

Farm Summary

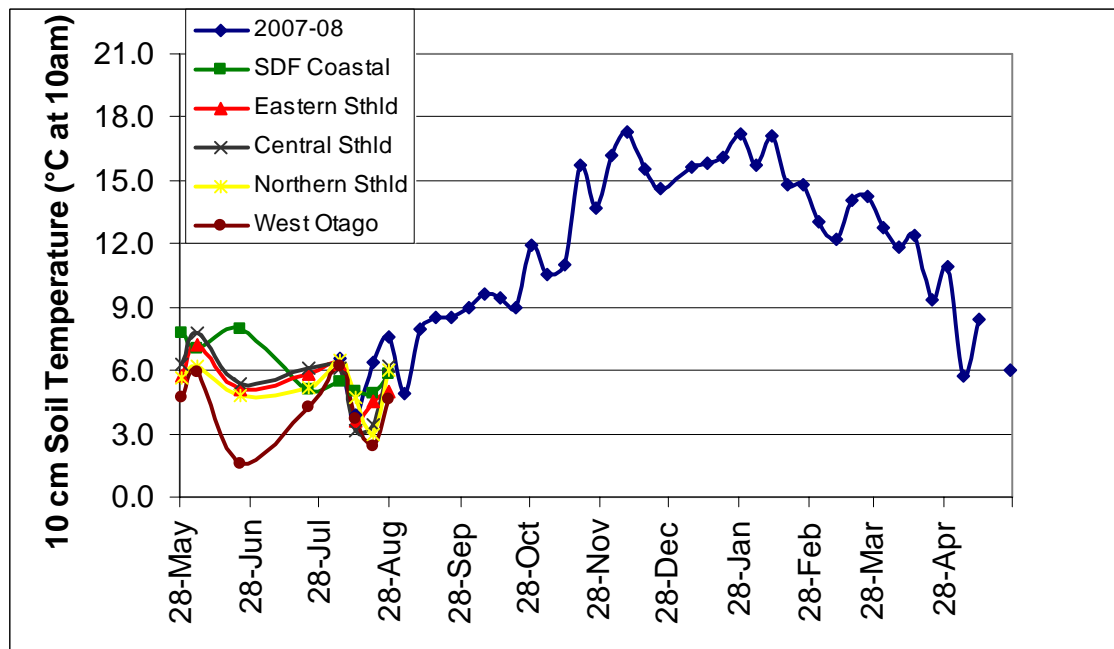
	Demo Farm	Eastern	Central	Northern	West Otago
Average cover (kg DM/ha)	2194	1870	1960	1603	1881
Rotation length (days)	83	68	82	41	47
Percentage in milk	58	42	42	56	44
Milksolids kg/cow	1.53	1.55	1.73	1.85	1.13
N (kg/ha)	0	9	0	0	0
Supplement (kg/cow/day)	0	1	2	2	1.5
Soil temperature (°C)	5.8	5.0	6.2	6.0	4.6
Growth Rate (kg DM/day)	15	6	15	10	8
Rainfall	18	14	14	7	7

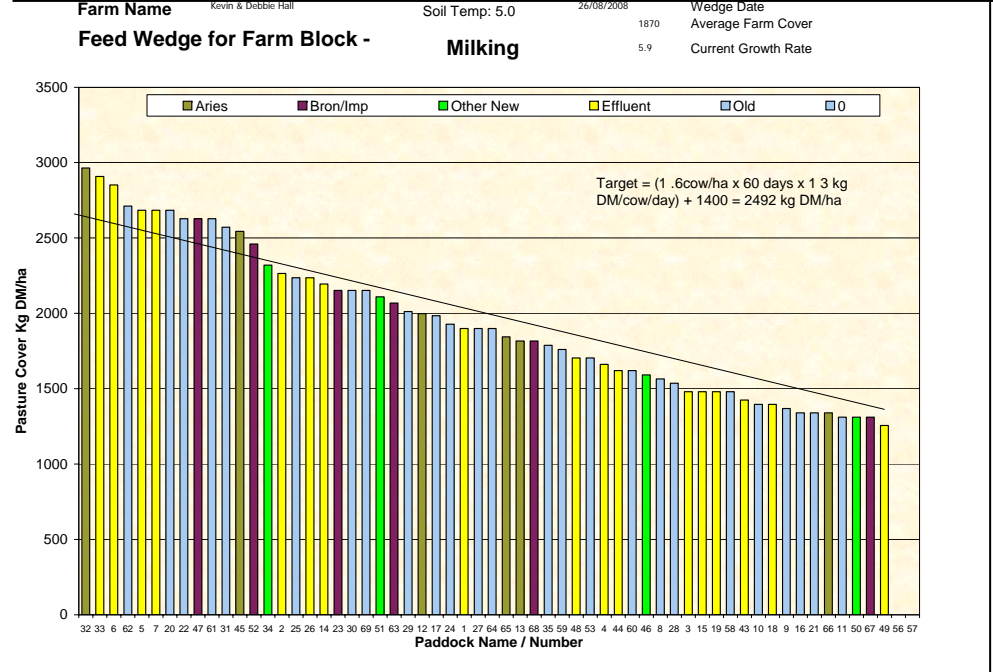
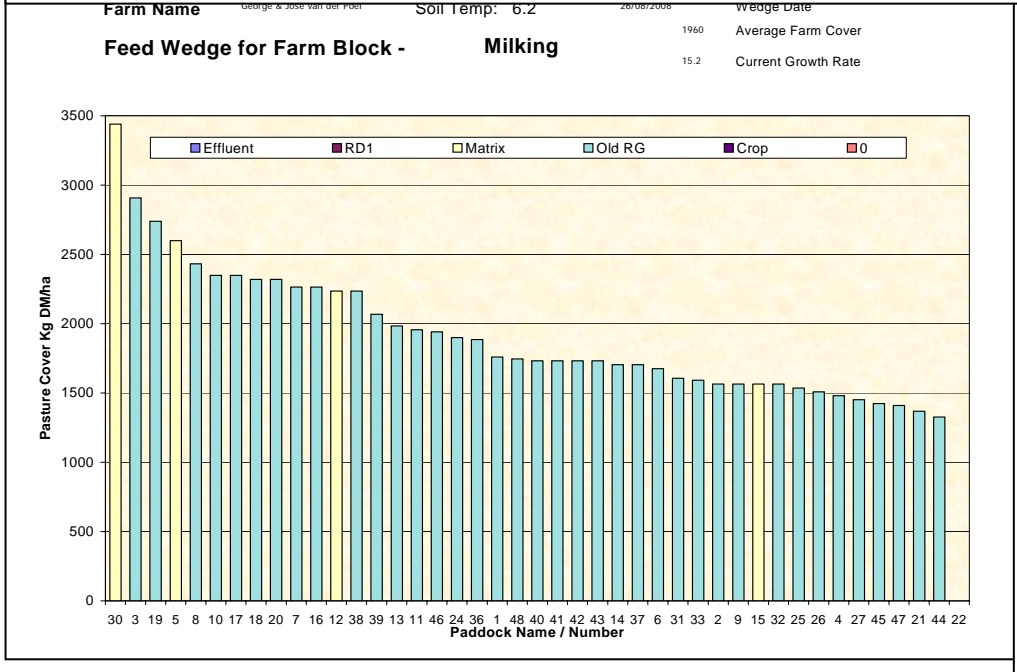
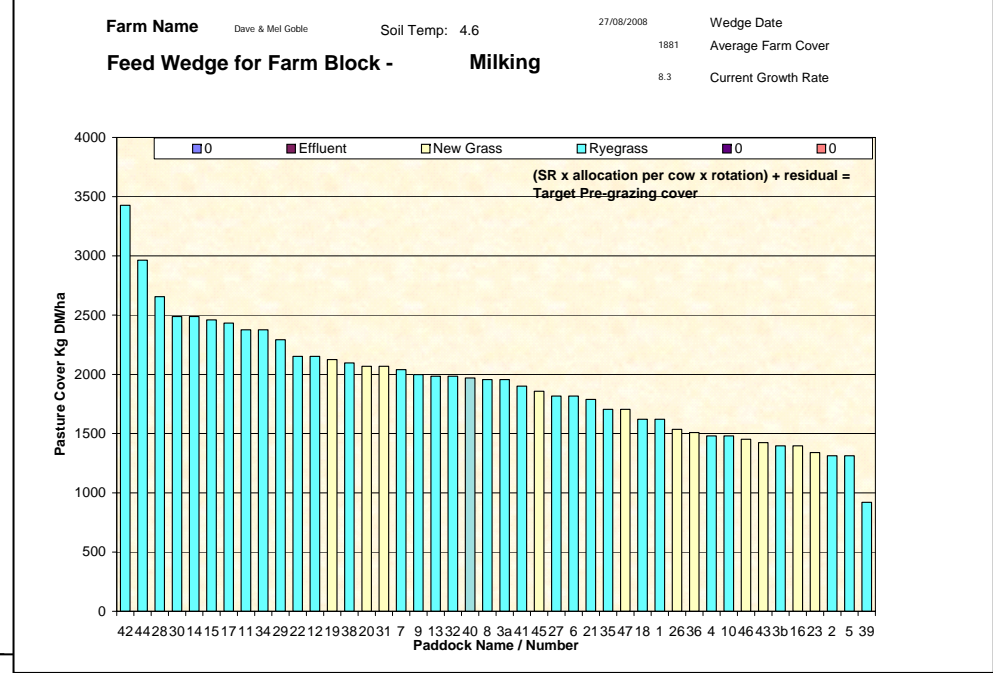
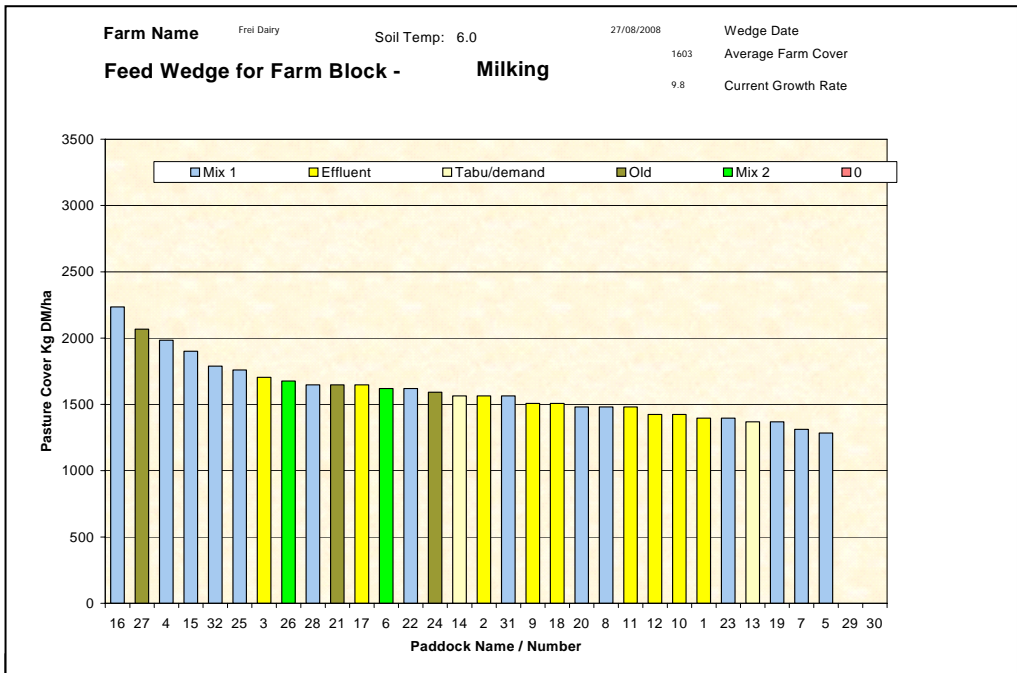
Pasture Growth Rates



NB the Woodlands data is the long-term average from mature pastures at Woodlands measured using enclosure cages.

Soil Temperature





Pasture Quality

NOTE: We sample the paddocks immediately in front of the milkers, to height of 3.5cm (7 clicks on the rising plate meter). The RPM data in the table is the pre-grazing clicks recorded on the day of sampling.

Eastern Southland

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/ kg DM	%DM
Pdk 33	2 Oct	18.2	27.6	5.6	12.8	40.8	23.4	82.9	12.1	15.7
Pdk 34	16Oct	16.8	22.4	4.4	16.9	41.3	25.0	81.6	11.8	18.0
Pdk 55	16Oct	12.8	26.5	4.5	11.7	46.2	26.2	81.1	11.6	15.4
Pdk 25	30 Oct	14.6	26.0	4.1	15.0	43.2	24.0	>85	12.7	19.5
Pdk 29	30 Oct	11.6	23.3	4.3	16.4	40.4	22.2	>85	12.5	17.3
Pdk 33	13Nov	12.8	28.5	4.4	16.4	42.6	22.9	>85	12.6	16.7
Pdk 69	13Nov	14.6	23.6	3.7	15.1	45.2	24.7	82.5	12.2	17.1
Pdk 47	27Nov	16.2	22.6	3.8	15.8	47.1	25.3	84.7	12.4	14.1
Pdk 26	27Nov	18.0	20.1	3.4	14.3	50.6	26.5	80.2	11.8	15.7
Pdk 33	11Dec	17.6	24.9	4.4	14.4	45.8	24.6	80.7	11.8	13.2
Pdk 12	11Dec	13.6	23.9	4.3	14.8	44.3	26.2	78.3	11.4	14.6
Pdk 46	8 Jan	13.0	33.6	5.7	7.1	34.5	25.0	79.7	10.7	14.0
Pdk 53	8 Jan	16.6	24.3	3.9	9.4	51.4	27.2	77.7	11.0	16.6
Pdk 64	22 Jan	15.8	29.5	4.6	8.9	45.7	25.7	79.3	10.9	12.8
Pdk 34	22 Jan	12.6	29.5	5.5	8.1	45.6	27.4	76.4	10.5	13.5
Pdk 60	6 Feb	13.2	23.7	4.1	10.3	52.6	24.9	75.6	11.4	22.3
Pdk 44	6 Feb	13.4	26.7	5.1	14.8	43.9	23.1	81.1	11.9	20.6
Pdk 47	20 Feb	11.0	28.6	5.1	12.1	44.8	24.4	79.4	11.4	19.8
Pdk 30	20Feb	12.2	28.1	4.6	10.4	49.9	26.3	75.5	10.8	22.3
Pdk 65	4 Mar	12.6	28.6	4.7	13.3	47.0	23.9	82.3	12.0	18.3
Pdk 57	4 Mar	12.4	31.9	4.6	10.2	51.2	22.1	84.3	12.3	16.8
Pdk 69	17Mar	13.6	27.9	4.7	9.8	49.2	25.3	81.1	11.6	14.1
Pdk 55	1 Apr	11.2	31.3	4.6	6.1	54.3	26.7	80.0	11.4	12.4
Pdk 68	1 Apr	18.0	31.6	5.0	12.3	40.8	25.5	>85	12.2	10.6
Pdk 51	15Apr	21.3	25.8	4.1	14.3	43.2	25.7	81.0	11.7	15.5
Pdk 65	15Apr	19.4	30.8	4.6	13.8	36.6	23.4	85.0	12.2	13.7
Pdk 24	30Apr	20.0	29.6	4.6	11.0	49.8	25.3	82.2	11.9	13.2
Pdk 27	30Apr	18.8	28.1	4.4	11.9	48.9	24.9	80.5	11.6	13.2
Pdk 62	13May	14.8	28.6	5.2	12.7	45.0	26.6	79.4	11.2	17.0
Pdk 8	13May	13.4	29.2	5.9	11.7	43.1	24.6	79.5	11.2	18.0
Pdk 16	25Jun	13.8	24.3	3.9	15.4	49.8	28.2	80.6	11.8	16.7
Pdk 43	25 Jun	15.8	26.2	4.8	12.1	50.7	27.2	78.2	11.3	15.9
Pdk 43	22 Jul	18.8	24.8	4.4	14.1	52	26	78.6	11.5	16.0
Pdk 16	22 Jul	13.6	26.4	4.7	14.5	48.0	24.7	82.7	11.9	17.7
Pdk 43	5 Aug	13.1	26.1	5.3	15.5	44.0	24.0	80.3	11.5	15.1
Pdk 16	5 Aug	13.6	25.2	4.8	16.9	40.9	25.4	81.3	11.6	15.0
Pdk 16	19Aug	13.6	24.3	4.3	15.5	42.7	26.1	80.7	11.6	15.5
Pdk 50	19Aug	16.2	26.9	5.3	15.1	42.4	24.6	82	12	14.2

Central Southland

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/kg DM	%DM
Pdk 42	2 Oct	13.0	21.6	4.9	10.3	39.6	24.6	>85	12.3	12.5
Pdk 18	16Oct	11.1	26.3	5.1	13.9	40.7	23.3	82.5	12.0	15.5
Pdk 39	16Oct	14.4	28.2	5.4	11.6	40.4	24.3	84.0	11.8	13.5
Pdk 20	30Oct	16.4	21.5	4.0	17.5	42.8	22.0	>85	>12.7	20.0
Pdk 4	30Oct	16.8	24.4	4.8	14.7	42.2	22.9	81.6	12.0	18.3
Pdk 12	13Nov	17.4	24.7	4.3	16.3	44.8	22.6	>85	>12.7	17.3
Pdk 6	13Nov	19.4	23.1	4.3	18.5	39.5	23.7	>85	12.5	18.9
Pdk 26	27Nov	15.8	17.8	2.9	16.2	49.6	29.8	75.4	11.2	18.3
Pdk 13	27Nov	16.4	23.1	3.8	16.9	43.8	25.4	81.5	11.9	19.6
Pdk 40	11Dec	14.2	17.8	3.3	16.6	53.3	31.5	70.3	10.6	21.1
Pdk 15	11Dec	15.3	24.4	4.7	13.5	50.6	25.3	79	11.8	17.1
Pdk 12	8 Jan	12.2	34.8	6.2	6.1	39.0	23.9	82.1	11.1	17.3
Pdk 16	8 Jan	9.1	32.7	5.8	9.7	37.0	23.3	83.7	11.5	16.6
Pdk 5	22Jan	11.8	29.9	5.3	9.0	46.5	25.8	77.1	10.9	17.8
Pdk 42	22Jan	10.8	32.5	4.7	14.4	43.0	23.4	>85	12.2	17.3
Pdk 15	6 Feb	10.8	33.4	5.9	13.8	36.9	21.2	>85	>12.7	19.7
Pdk 33	6 Feb	10.6	27.9	5.2	14.7	39.8	22.2	82.1	12.0	21.3
Pdk 9	20Feb	9.4	27.0	4.8	12.0	47.0	24.1	80.3	11.7	20.7
Pdk 21	20Feb	9.0	34.0	5.7	11.8	37.9	24.2	81.7	11.6	22.2
Pdk 2	4 Mar	11.8	28.4	5.2	9.6	51.8	25.0	76.2	11.2	20.7
Pdk 27	17Mar	10.4	34.1	4.8	7.3	48.2	21.9	>85	>12.7	15.8
Pdk 18	1 Apr	12.2	31.7	6.0	10.3	39.5	22.5	82.3	11.9	14.6
Pdk 31	1 Apr	10.4	32.6	6.8	13.2	37.6	21.2	>85	>12.7	16.6
Pdk 13	15Apr	14.0	32.9	6.0	12.0	38.5	20.9	85.8	12.5	16.8
Pdk 41	15Apr	11.6	30.6	5.4	15.0	36.9	21.6	89.0	13.1	15.3
Pdk 9	30Apr	12.4	29.8	5.1	12.7	45.0	21.7	83.8	12.3	17.3
Pdk 27	30Apr	11.4	30.9	4.9	12.3	45.1	23.1	>85	12.6	18.1
Pdk 8	13May	8.0	28.7	6.2	15.7	37.4	24.3	83.5	12.0	18.5
Pdk 24	13May	7.4	29.6	5.5	14.5	36.5	23.8	84.6	12.0	18.5
Pdk 6	25 Jun	12.2	31.2	5.6	11.6	44.9	21.9	>85	12.6	19.9
Pdk 26	25 Jun	9.8	28.6	5.2	14.2	44.1	24.4	81.3	12.0	19.6
Pdk 26	22 Jul	11.4	27.8	5.5	15.2	42.8	23.6	83.1	11.9	18.2
Pdk 6	22 Jul	13.0	27.0	5.3	14.3	45.6	23.4	82.4	12.1	19.9
Pdk 26	5 Aug	18.2	27.9	5.7	15.2	39.8	23.8	81.7	11.6	17.1
Pdk 6	5 Aug	13.6	32.4	5.9	14.4	37.4	22.3	>85	12.6	20.8
Pdk 21	19Aug	-	28.7	4.6	11.9	41.2	23.1	>85	12.3	19.3
Pdk 9	19Aug	11.6	30.1	5.1	13.1	41.1	22.1	>85	>12.7	21.8

West Otago

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/kg DM	%DM
Pdk 45	3 Oct	10.4	34.1	5.9	9.9	36.6	22.7	>85	12.4	14.2
Pdk 19	17Oct	13.6	28.1	4.8	11.8	41.7	24.1	>85	12.3	12.4
Pdk 29	17Oct	14.8	29.3	4.7	9.6	46.1	25.1	83.7	11.9	13.0
Pdk 21	31Oct	13.8	25.9	4.7	15.1	43.4	25.4	83.9	12.0	18.1
Pdk 35	31Oct	12.8	28.3	5.1	15.2	41.1	22.9	>85	12.4	17.9
Pdk 6	14Nov	22.4	20.6	4.1	16.9	44.8	24.6	81.0	11.9	15.6
Pdk 40	14Nov	24.6	20.6	4.4	19.4	44.1	24.2	83.9	12.2	15.7
Pdk 12	28Nov	18.0	23.7	3.8	16.9	46.4	24.9	84.9	12.6	20.1
Pdk 19	28Nov	17.6	21.8	4.5	16.7	41.6	20.3	>85	>12.7	18.6
Pdk 31	12Dec	14.6	25.3	4.5	14.8	45.6	24.8	79.5	11.8	18.4
Pdk 7	12Dec	13.6	22.1	4.2	11.1	54.6	28.6	70.7	10.8	19.0
Pdk 5	9 Jan	12.6	31.1	5.3	12.4	41.3	23.6	80.8	11.4	19.1
Pdk 28	9 Jan	17.0	28.7	5.2	10.9	42.3	25.3	78.7	11.1	17.9
Pdk 23	22Jan	12.8	31.5	5.2	8.3	44.3	27.0	76.5	10.8	19.3
Pdk 46	22Jan	10.4	15.7	3.7	8.9	56.2	34.3	56.6	8.3	33.9
Pdk 6	7 Feb	13.4	25.8	4.8	11.8	47.3	24.4	75.0	11.0	18.1
Pdk 12	21Feb	13.8	28.4	5.1	9.0	50.2	24.2	77.0	11.4	19.5
Pdk 21	21Feb	15.0	29.0	5.0	9.3	48.6	25.7	77.4	11.1	17.9
Pdk 23	5 Mar	10.4	30.5	5.2	10.5	48.2	25.4	76.6	11.0	17.9
Pdk 27	5 Mar	12.8	31.4	5.3	9.5	48.2	24.9	79.3	11.4	15.8
Pdk 11	18Mar	15.8	35.5	5.0	10.0	40.2	21.7	>85	12.6	12.8
Pdk 26	18Mar	15.4	31.1	4.6	10.5	48.2	22.6	84.3	12.4	16.8
Pdk 46	1 Apr	19.0	31.6	5.6	9.3	44.6	23.3	83.8	12.0	13.1
Pdk 32	1 Apr	14.5	33.8	5.9	8.5	41.5	22.3	84.5	12.0	13.7
Pdk 11	16Apr	17.8	29.6	4.8	13.9	34.4	24.0	84.3	12.1	13.0
Pdk 21	16Apr	17.4	30.6	5.3	12.4	39.5	24.0	84.8	12.1	13.6
Pdk 36	1May	12.2	30.4	4.4	11.9	43.1	22.8	84.0	12.1	13.1
Pdk 46	1May	12.0	31.9	4.7	9.8	46.9	22.8	>85	12.3	14.7
Pdk 26	14May	11.4	31.4	5.7	13.6	38.6	24.1	84.6	11.8	17.2
Pdk 35	14May	9.2	27.1	5.0	14.2	43.4	25.7	78.7	11.0	18.3
Pdk 14	2 Jul	11.8	27.1	5.0	10.6	48.6	25.2	79.1	11.5	21.1
Pdk 26	2 Jul	14.2	27.4	5.2	13.3	43.3	21.5	84.0	12.4	20.7
Pdk 14	23 Jul	12.4	28.8	5.3	13.5	43.3	25.4	80.2	11.5	15.8
Pdk 26	23 Jul	15.2	30.5	5.4	11.3	44.7	23.5	82.8	11.8	14.2
Pdk 14	5 Aug	13.4	29.0	5.4	13.0	45.3	23.9	79.6	11.4	17.0
Pdk 26	5 Aug	18.2	29.1	5.6	12.9	41.5	24.1	81.5	11.7	15.9
Pdk 14	20Aug	13.4	25.6	4.8	15.2	43.7	25	81.5	11.9	21.2
Pdk 42	20Aug	23.0	22.1	4.8	17.7	44.4	22.2	>85	>12.7	17.3

Southland Monitor Farm Project

Weekly Update – 20 August 08

General Comments

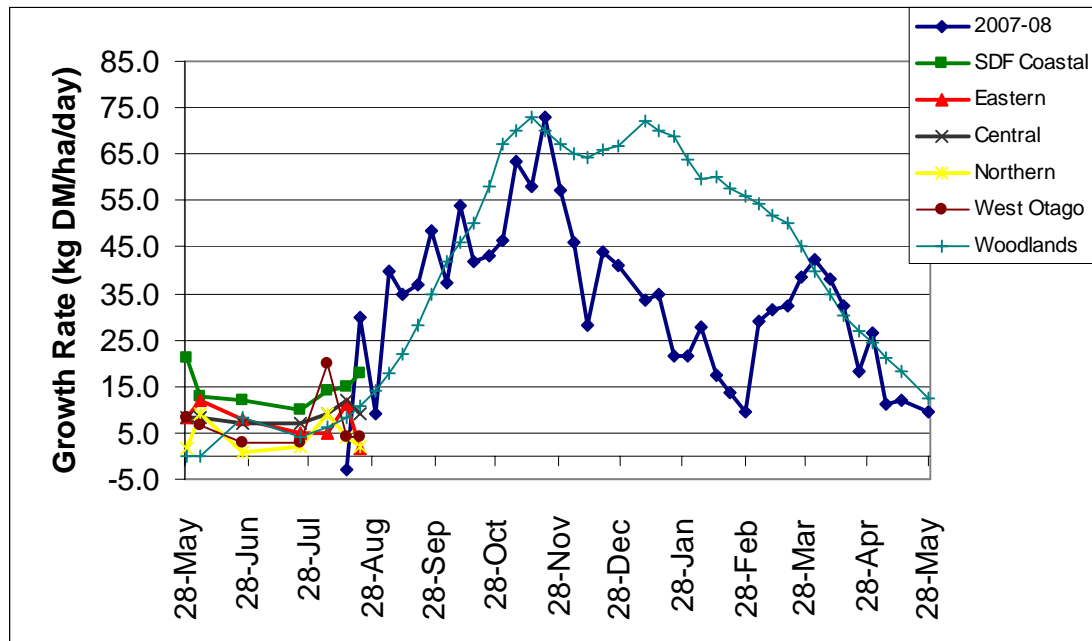
Soil temperatures have continued to decline this week with hard frosts on the days of farm walking. Again all farms recorded temperatures below 5 °C. The range in growth rate was similar to last week although there were more farms at the lower end of the range. All farms are now supplying milk to Fonterra. The only farm not feeding supplements to the milkers is the Demonstration farm. Of the monitor farms two are feeding PKE and the other 2 meal in the shed. All regions have received considerable rain in the last 7 days.

The Eastern Southland farm has commenced their spring application of urea with 9% of the farm receiving 75 kg urea per hectare.

Farm Summary

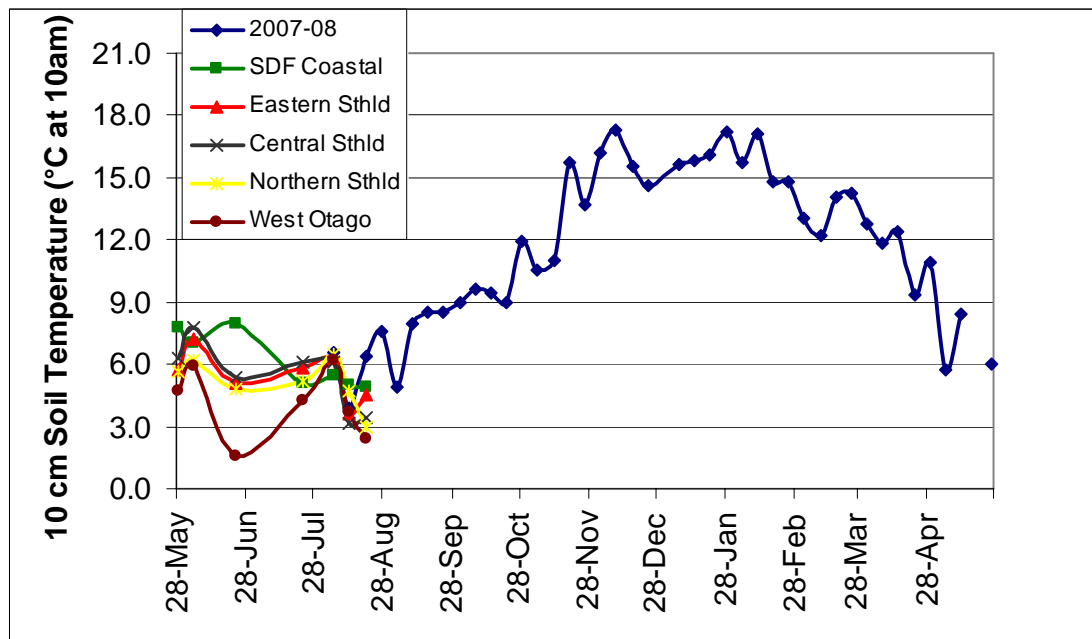
	Demo Farm	Eastern	Central	Northern	West Otago
Average cover (kg DM/ha)	2303	1981	2024	1604	1900
Rotation length (days)	-	84	-	57	-
Percentage in milk	43	30	27	39	>21
N (kg/ha)	0	9	0	0	0
Supplement (kg/cow/day)	0	1	1.5	2	4
Soil temperature (°C)	4.9	4.5	3.4	3.0	2.4
Growth Rate (kg DM/day)	18	1.5	9	2	4
Rainfall	-	59	41	34	30

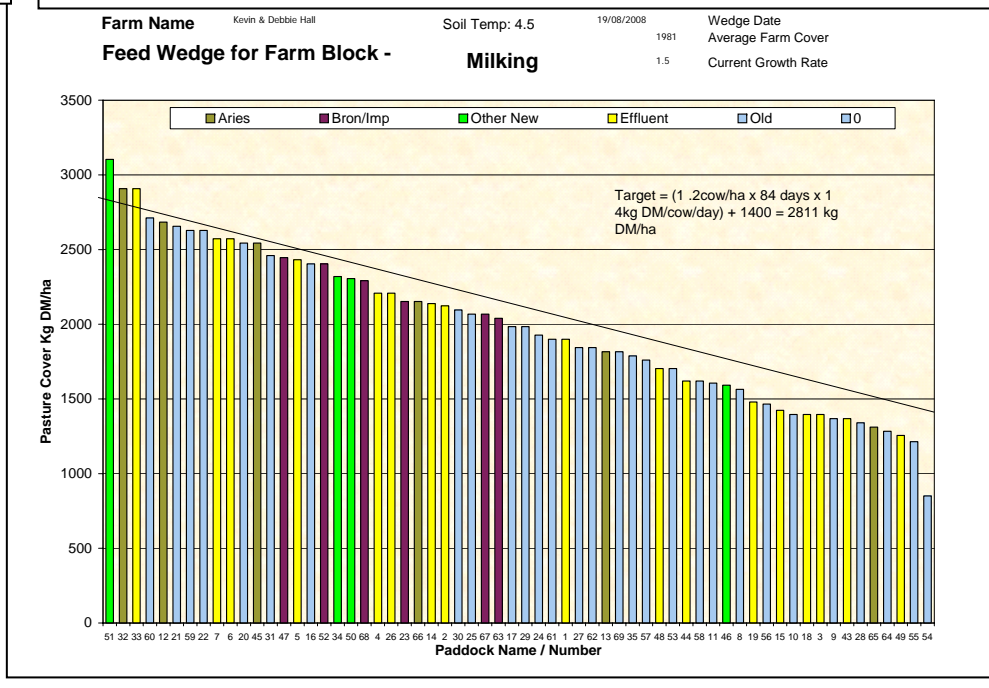
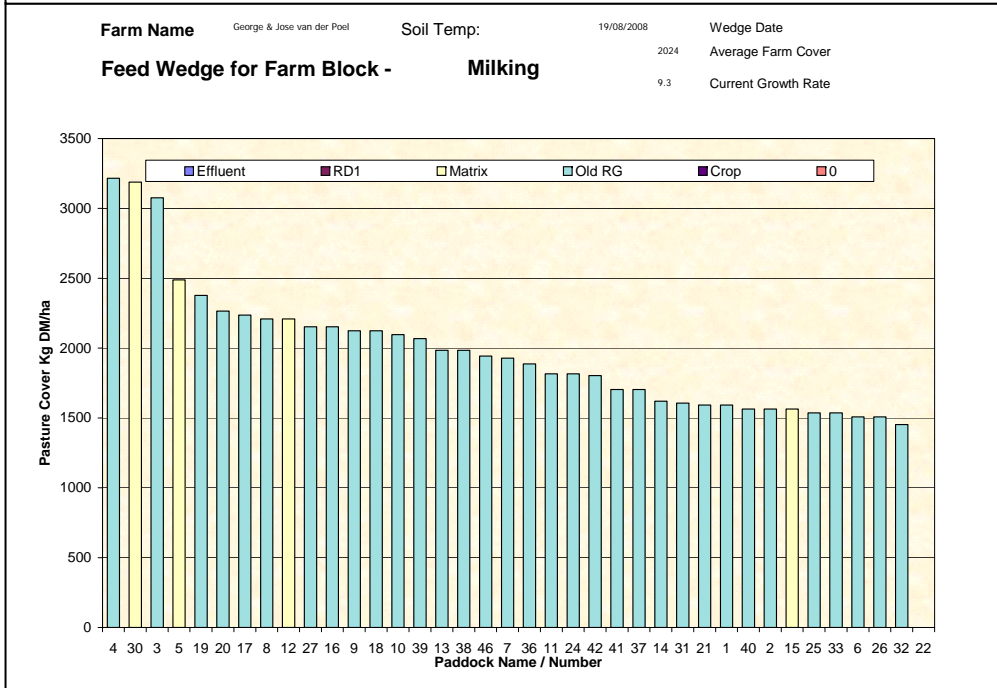
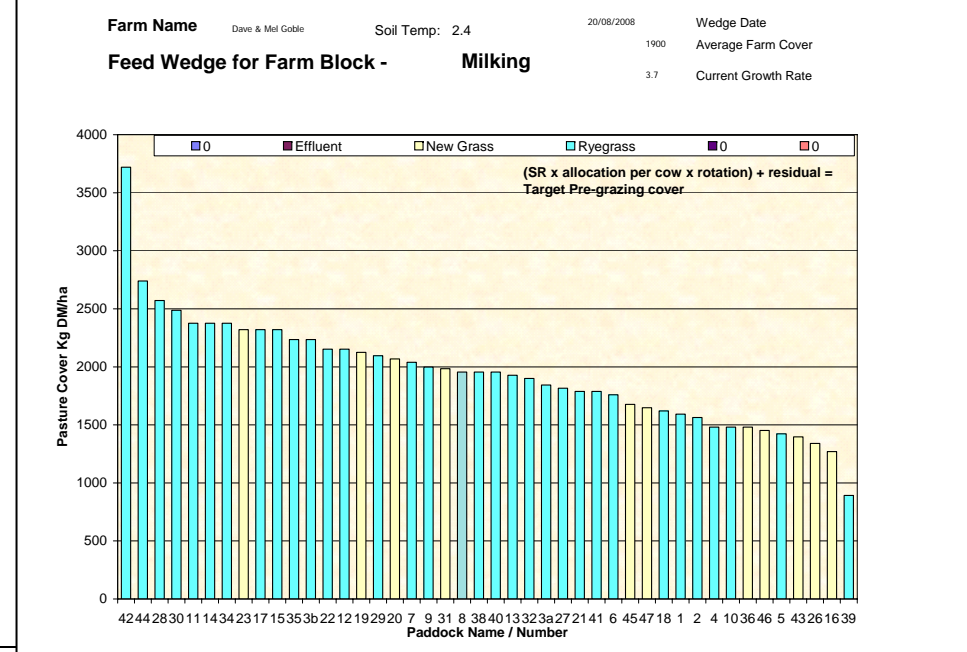
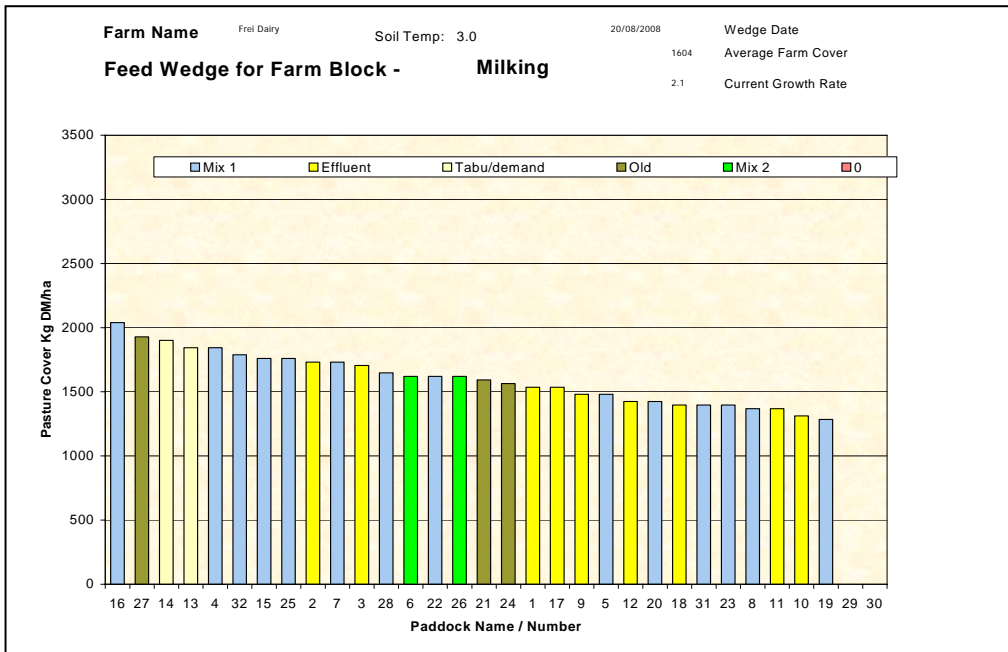
Pasture Growth Rates



NB the Woodlands data is the long-term average from mature pastures at Woodlands measured using enclosure cages.

Soil Temperature





Southland Monitor Farm Project

Weekly Update – 13 August 08

General Comments

Soil temperatures in most regions dropped significantly this week after 3 hard frosts. All farms recorded temperatures 5 °C or below. As a consequence growth rates have declined, the range for the farms being 4 to 15 kg DM/ha/day. Calving is now in full swing on all the farms with the Demonstration farm having the highest percentage calved to date. The West Otago farm is particularly wet at present. They are currently feeding 1 kg PKE and 3 kg of hay to the milkers. The only other farm feeding supplements is the Eastern Southland farm which is including a PKE/Tapioca mix in the shed to the milkers and molasses to the colostrum mob.

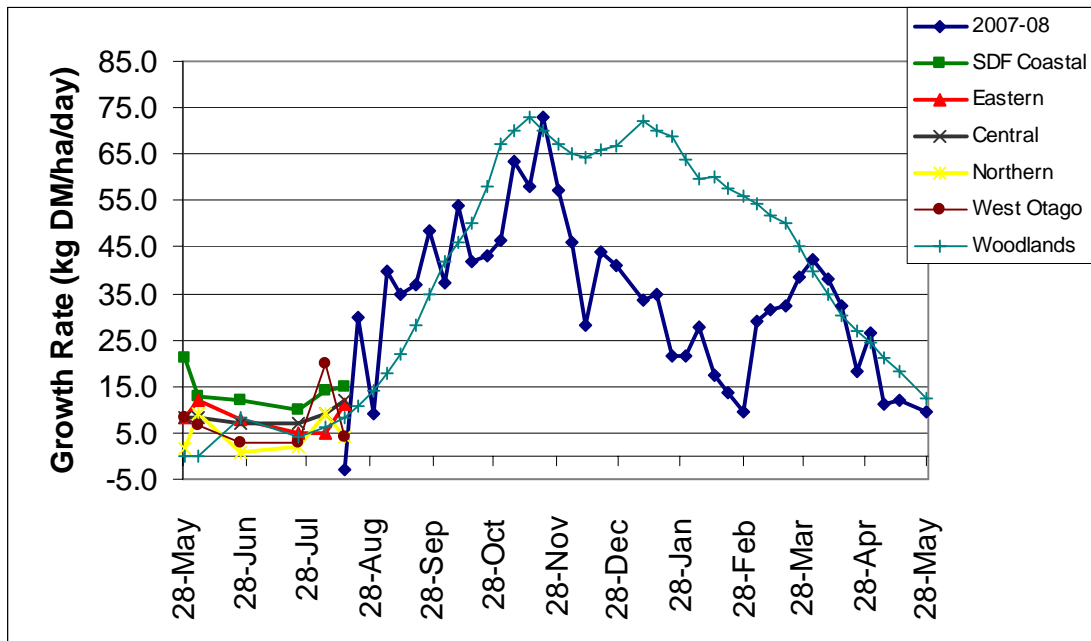
Pasture samples collected on the 5th August ranged in quality from 11.4 to 12.6 MJ ME/kg DM. Crude protein concentrations ranged from 25.2 to 32.4%. Since late June the 2 paddocks to be sampled on each farm have been the same. This was done to give an indication of changes in pasture quality across the winter period. As you will see from the data below (average of all 4 farms each month) there has been very little change in quality since 25 June. The pastures on average have increased in height by 2.5 clicks but there have been only minor changes in crude protein and ME concentrations. The two fractions that have increase over the period are lipid and soluble sugar concentrations. Interestingly the NDF (neutral detergent fibre) concentrations were on average lower in the August samples however this is probably due to sampling variability as pastures generally increase in NDF as they mature.

	Height (1/2 cm)	Crude protein	Lipid %	SSS %	NDF %	ADF %	ME MJ/kg DM	DM%
June	12.2	27.1	4.9	13.7	45.7	24.3	12.0	18.4
July	13.1	27.2	5.0	13.8	46.5	24.5	11.8	16.3
Aug	14.6	28.1	5.4	15.2	41.2	23.8	11.8	17.1

Farm Summary

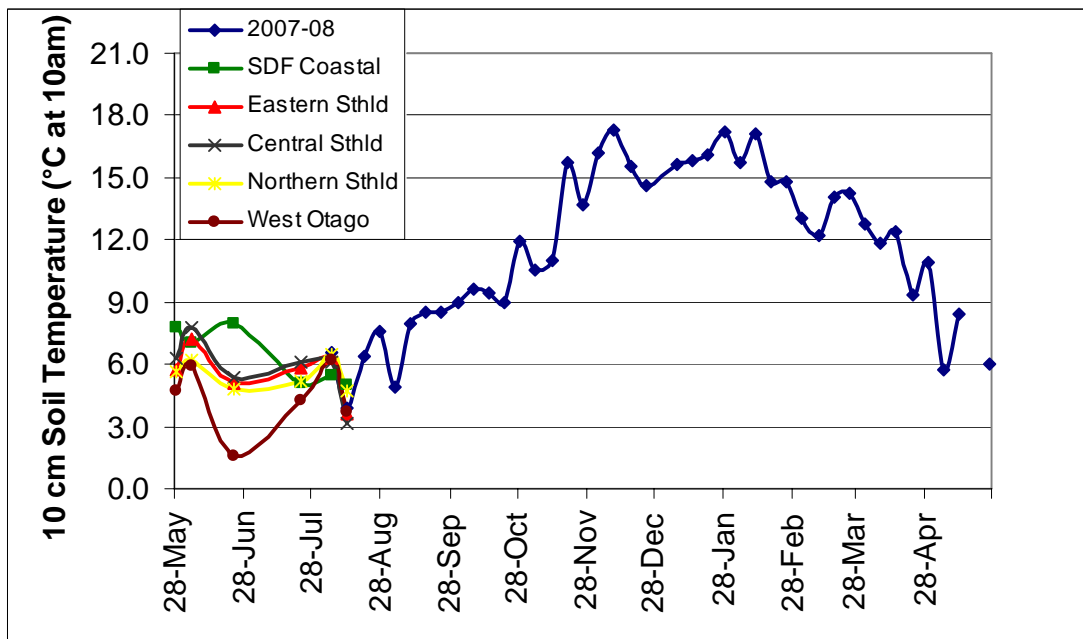
	Demo Farm	Eastern	Central	Northern	West Otago
Average cover (kg DM/ha)	2402	2061	1982	1667	1953
Rotation length (days)	-	86	-	-	-
Percentage in milk	27	18	12	14	21
N (kg/ha)	0	0	0	0	0
Soil temperature (°C)	5.0	3.6	3.1	4.7	3.7
Growth Rate (kg DM/day)	15	11	12	4	4
Rainfall	-	18	8.5	10.5	13

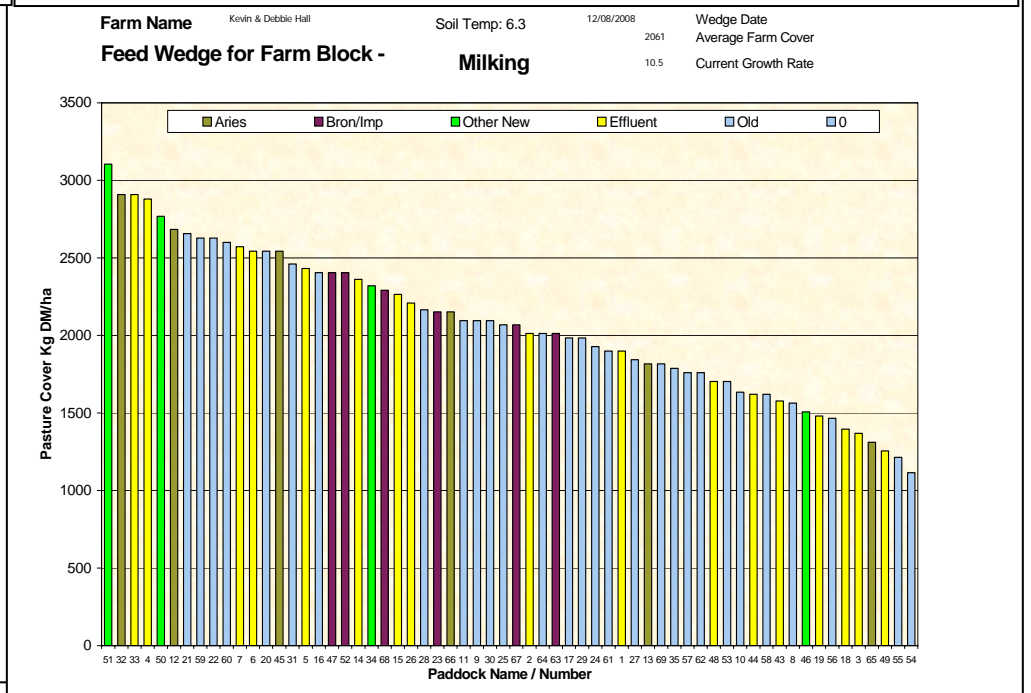
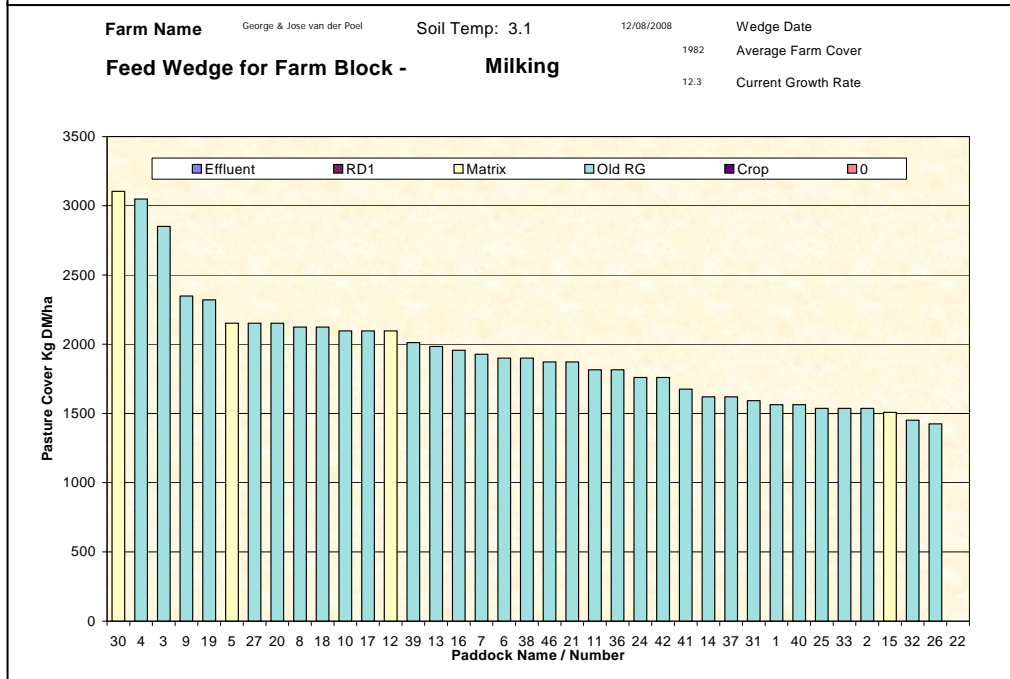
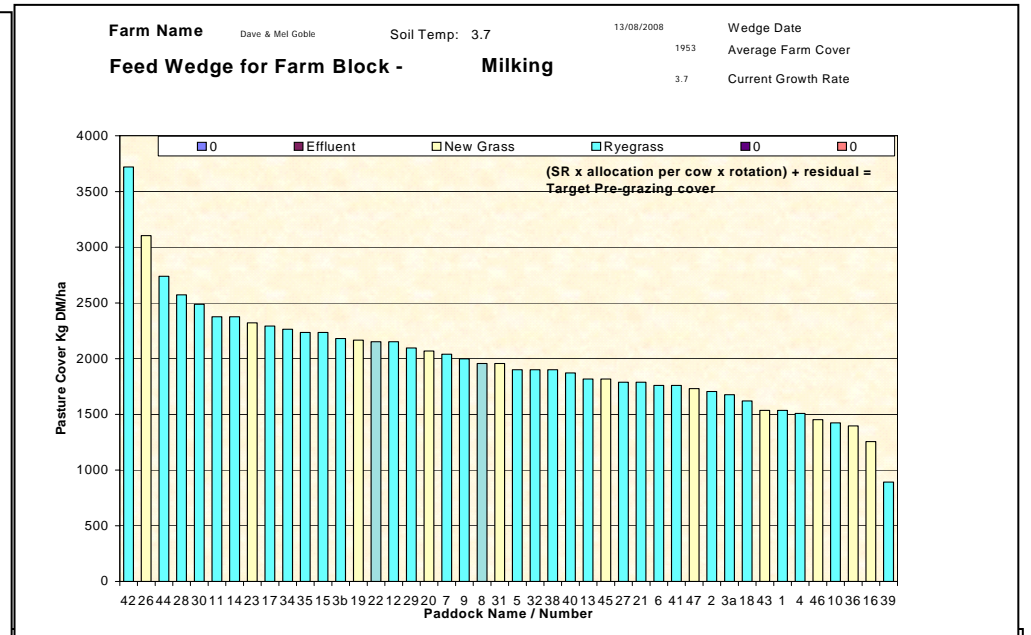
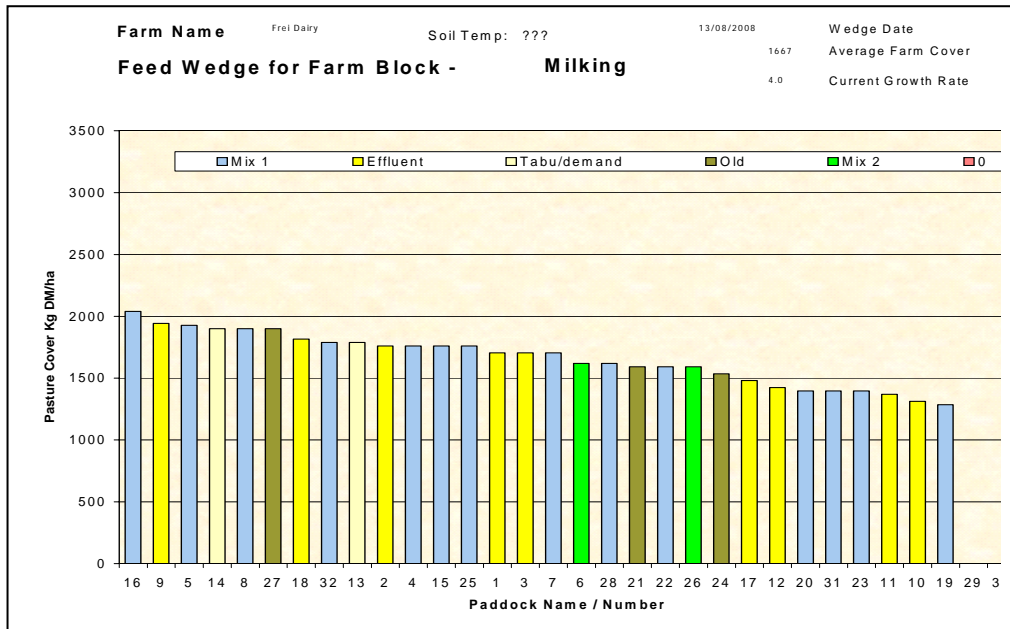
Pasture Growth Rates



NB the Woodlands data is the long-term average from mature pastures at Woodlands measured using enclosure cages.

Soil Temperature





Southland Monitor Farm Project

Weekly Update – 6 August 08

General Comments

Soil temperatures have remained around 5-6 C for the last 2 weeks. Generally conditions have been milder than the 2007 winter with fewer frosts keeping soil temperatures higher. Growth rates have been more variable across the regions over the last 2 weeks. The highest of 20 kg DM/ha/day was recorded in West Otago, however this may have been an overestimate as the farm was plated in very wet conditions on the 23rd July. Conversely, growth on the Edendale farm this week may be underestimated due to wet conditions while plating. No paddocks recorded zero growth rates in this period. The new grass paddocks on all farms continue to grow at higher rates than older pastures. The average growth rate for the 5 farms is similar to the Woodlands long-term average growth for early August.

Calving has commenced on all farms but none are currently supplying milk.

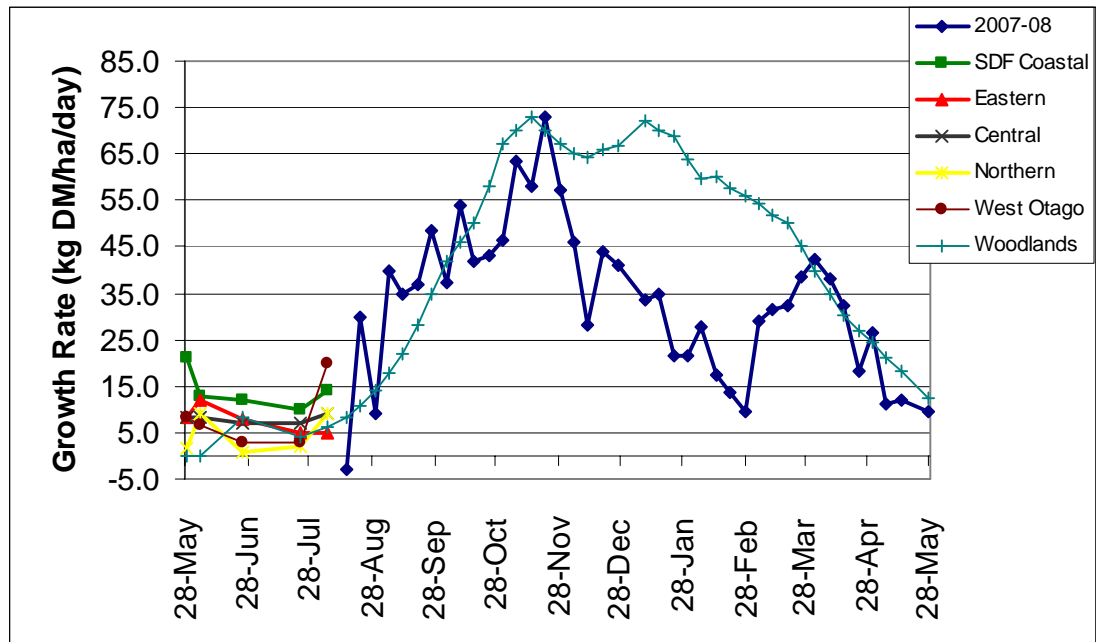
Pasture samples collected on the 23rd July ranged in quality from 11.5 to 12.1 MJ ME/kg DM. The paddocks sampled on each farm were the same as were sampled on the 25th June. In all but 2 paddocks quality declined from late June to late July, most likely as a result of increasing neutral detergent fibre (NDF) concentrations over this period. Crude protein concentrations ranged from 23.7 to 30.5%. Interestingly, the soluble sugar concentrations were higher in the July samples.

Farm walks will now be conducted weekly unless severe weather conditions restrict this happening.

Farm Summary

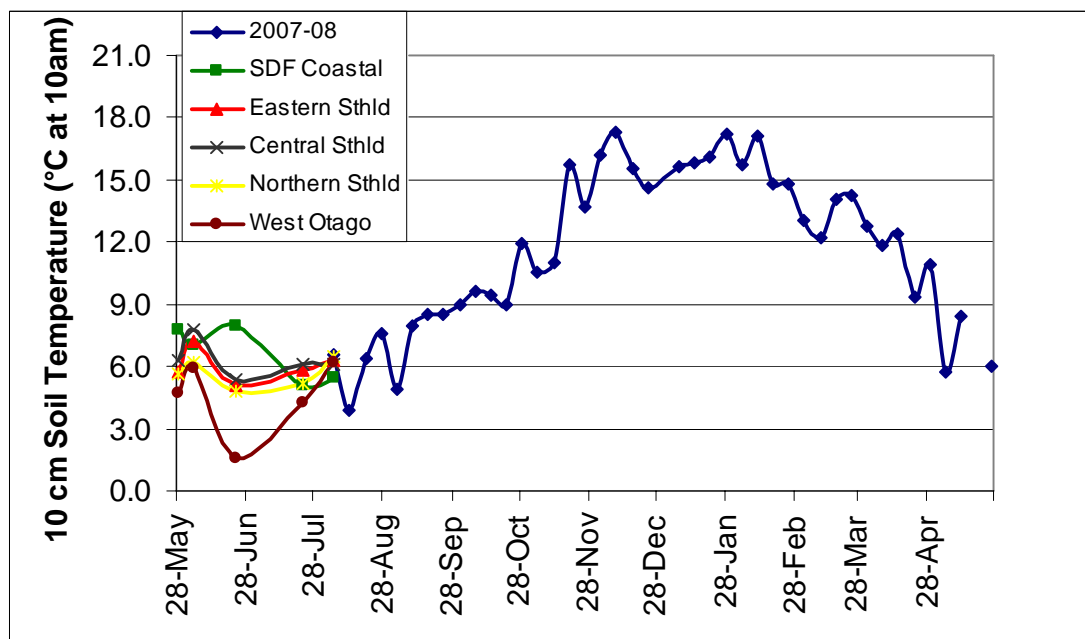
	Demo Farm	Eastern	Central	Northern	West Otago
Average cover (kg DM/ha)	2333	2077	1922	1682	1982
Rotation length (days)	-	-	-	-	-
Percentage in milk	0	0	0	0	0
N (kg/ha)	0	0	0	0	0
Soil temperature (°C)	5.5	6.3	6.1	6.5	6.2
Growth Rate (kg DM/day)	14	5	9	9	20
Rainfall	25	21	28	25	31

Pasture Growth Rates



NB the Woodlands data is the long-term average from mature pastures at Woodlands measured using enclosure cages.

Soil Temperature



Pasture Quality

NOTE: We sample the paddocks immediately in front of the milkers, to height of 3.5cm (7 clicks on the rising plate meter). The RPM data in the table is the pre-grazing clicks recorded on the day of sampling.

Eastern Southland

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/ kg DM	%DM
Pdk 33	2 Oct	18.2	27.6	5.6	12.8	40.8	23.4	82.9	12.1	15.7
Pdk 34	16Oct	16.8	22.4	4.4	16.9	41.3	25.0	81.6	11.8	18.0
Pdk 55	16Oct	12.8	26.5	4.5	11.7	46.2	26.2	81.1	11.6	15.4
Pdk 25	30 Oct	14.6	26.0	4.1	15.0	43.2	24.0	>85	12.7	19.5
Pdk 29	30 Oct	11.6	23.3	4.3	16.4	40.4	22.2	>85	12.5	17.3
Pdk 33	13Nov	12.8	28.5	4.4	16.4	42.6	22.9	>85	12.6	16.7
Pdk 69	13Nov	14.6	23.6	3.7	15.1	45.2	24.7	82.5	12.2	17.1
Pdk 47	27Nov	16.2	22.6	3.8	15.8	47.1	25.3	84.7	12.4	14.1
Pdk 26	27Nov	18.0	20.1	3.4	14.3	50.6	26.5	80.2	11.8	15.7
Pdk 33	11Dec	17.6	24.9	4.4	14.4	45.8	24.6	80.7	11.8	13.2
Pdk 12	11Dec	13.6	23.9	4.3	14.8	44.3	26.2	78.3	11.4	14.6
Pdk 46	8 Jan	13.0	33.6	5.7	7.1	34.5	25.0	79.7	10.7	14.0
Pdk 53	8 Jan	16.6	24.3	3.9	9.4	51.4	27.2	77.7	11.0	16.6
Pdk 64	22 Jan	15.8	29.5	4.6	8.9	45.7	25.7	79.3	10.9	12.8
Pdk 34	22 Jan	12.6	29.5	5.5	8.1	45.6	27.4	76.4	10.5	13.5
Pdk 60	6 Feb	13.2	23.7	4.1	10.3	52.6	24.9	75.6	11.4	22.3
Pdk 44	6 Feb	13.4	26.7	5.1	14.8	43.9	23.1	81.1	11.9	20.6
Pdk 47	20 Feb	11.0	28.6	5.1	12.1	44.8	24.4	79.4	11.4	19.8
Pdk 30	20Feb	12.2	28.1	4.6	10.4	49.9	26.3	75.5	10.8	22.3
Pdk 65	4 Mar	12.6	28.6	4.7	13.3	47.0	23.9	82.3	12.0	18.3
Pdk 57	4 Mar	12.4	31.9	4.6	10.2	51.2	22.1	84.3	12.3	16.8
Pdk 69	17Mar	13.6	27.9	4.7	9.8	49.2	25.3	81.1	11.6	14.1
Pdk 55	1 Apr	11.2	31.3	4.6	6.1	54.3	26.7	80.0	11.4	12.4
Pdk 68	1 Apr	18.0	31.6	5.0	12.3	40.8	25.5	>85	12.2	10.6
Pdk 51	15Apr	21.3	25.8	4.1	14.3	43.2	25.7	81.0	11.7	15.5
Pdk 65	15Apr	19.4	30.8	4.6	13.8	36.6	23.4	85.0	12.2	13.7
Pdk 24	30Apr	20.0	29.6	4.6	11.0	49.8	25.3	82.2	11.9	13.2
Pdk 27	30Apr	18.8	28.1	4.4	11.9	48.9	24.9	80.5	11.6	13.2
Pdk 62	13May	14.8	28.6	5.2	12.7	45.0	26.6	79.4	11.2	17.0
Pdk 8	13May	13.4	29.2	5.9	11.7	43.1	24.6	79.5	11.2	18.0
Pdk 16	25Jun	13.8	24.3	3.9	15.4	49.8	28.2	80.6	11.8	16.7
Pdk 43	25 Jun	15.8	26.2	4.8	12.1	50.7	27.2	78.2	11.3	15.9
Pdk 43	22 Jul	18.8	24.8	4.4	14.1	52	26	78.6	11.5	16.0
Pdk 16	22 Jul	13.6	26.4	4.7	14.5	48.0	24.7	82.7	11.9	17.7

Central Southland

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/kg DM	%DM
Pdk 42	2 Oct	13.0	21.6	4.9	10.3	39.6	24.6	>85	12.3	12.5
Pdk 18	16Oct	11.1	26.3	5.1	13.9	40.7	23.3	82.5	12.0	15.5
Pdk 39	16Oct	14.4	28.2	5.4	11.6	40.4	24.3	84.0	11.8	13.5
Pdk 20	30Oct	16.4	21.5	4.0	17.5	42.8	22.0	>85	>12.7	20.0
Pdk 4	30Oct	16.8	24.4	4.8	14.7	42.2	22.9	81.6	12.0	18.3
Pdk 12	13Nov	17.4	24.7	4.3	16.3	44.8	22.6	>85	>12.7	17.3
Pdk 6	13Nov	19.4	23.1	4.3	18.5	39.5	23.7	>85	12.5	18.9
Pdk 26	27Nov	15.8	17.8	2.9	16.2	49.6	29.8	75.4	11.2	18.3
Pdk 13	27Nov	16.4	23.1	3.8	16.9	43.8	25.4	81.5	11.9	19.6
Pdk 40	11Dec	14.2	17.8	3.3	16.6	53.3	31.5	70.3	10.6	21.1
Pdk 15	11Dec	15.3	24.4	4.7	13.5	50.6	25.3	79	11.8	17.1
Pdk 12	8 Jan	12.2	34.8	6.2	6.1	39.0	23.9	82.1	11.1	17.3
Pdk 16	8 Jan	9.1	32.7	5.8	9.7	37.0	23.3	83.7	11.5	16.6
Pdk 5	22Jan	11.8	29.9	5.3	9.0	46.5	25.8	77.1	10.9	17.8
Pdk 42	22Jan	10.8	32.5	4.7	14.4	43.0	23.4	>85	12.2	17.3
Pdk 15	6 Feb	10.8	33.4	5.9	13.8	36.9	21.2	>85	>12.7	19.7
Pdk 33	6 Feb	10.6	27.9	5.2	14.7	39.8	22.2	82.1	12.0	21.3
Pdk 9	20Feb	9.4	27.0	4.8	12.0	47.0	24.1	80.3	11.7	20.7
Pdk 21	20Feb	9.0	34.0	5.7	11.8	37.9	24.2	81.7	11.6	22.2
Pdk 2	4 Mar	11.8	28.4	5.2	9.6	51.8	25.0	76.2	11.2	20.7
Pdk 27	17Mar	10.4	34.1	4.8	7.3	48.2	21.9	>85	>12.7	15.8
Pdk 18	1 Apr	12.2	31.7	6.0	10.3	39.5	22.5	82.3	11.9	14.6
Pdk 31	1 Apr	10.4	32.6	6.8	13.2	37.6	21.2	>85	>12.7	16.6
Pdk 13	15Apr	14.0	32.9	6.0	12.0	38.5	20.9	85.8	12.5	16.8
Pdk 41	15Apr	11.6	30.6	5.4	15.0	36.9	21.6	89.0	13.1	15.3
Pdk 9	30Apr	12.4	29.8	5.1	12.7	45.0	21.7	83.8	12.3	17.3
Pdk 27	30Apr	11.4	30.9	4.9	12.3	45.1	23.1	>85	12.6	18.1
Pdk 8	13May	8.0	28.7	6.2	15.7	37.4	24.3	83.5	12.0	18.5
Pdk 24	13May	7.4	29.6	5.5	14.5	36.5	23.8	84.6	12.0	18.5
Pdk 6	25 Jun	12.2	31.2	5.6	11.6	44.9	21.9	>85	12.6	19.9
Pdk 26	25 Jun	9.8	28.6	5.2	14.2	44.1	24.4	81.3	12.0	19.6
Pdk 26	22 Jul	11.4	27.8	5.5	15.2	42.8	23.6	83.1	11.9	18.2
Pdk 6	22 Jul	13.0	27.0	5.3	14.3	45.6	23.4	82.4	12.1	19.9

West Otago

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/kg DM	%DM
Pdk 45	3 Oct	10.4	34.1	5.9	9.9	36.6	22.7	>85	12.4	14.2
Pdk 19	17Oct	13.6	28.1	4.8	11.8	41.7	24.1	>85	12.3	12.4
Pdk 29	17Oct	14.8	29.3	4.7	9.6	46.1	25.1	83.7	11.9	13.0
Pdk 21	31Oct	13.8	25.9	4.7	15.1	43.4	25.4	83.9	12.0	18.1
Pdk 35	31Oct	12.8	28.3	5.1	15.2	41.1	22.9	>85	12.4	17.9
Pdk 6	14Nov	22.4	20.6	4.1	16.9	44.8	24.6	81.0	11.9	15.6
Pdk 40	14Nov	24.6	20.6	4.4	19.4	44.1	24.2	83.9	12.2	15.7
Pdk 12	28Nov	18.0	23.7	3.8	16.9	46.4	24.9	84.9	12.6	20.1
Pdk 19	28Nov	17.6	21.8	4.5	16.7	41.6	20.3	>85	>12.7	18.6
Pdk 31	12Dec	14.6	25.3	4.5	14.8	45.6	24.8	79.5	11.8	18.4
Pdk 7	12Dec	13.6	22.1	4.2	11.1	54.6	28.6	70.7	10.8	19.0
Pdk 5	9 Jan	12.6	31.1	5.3	12.4	41.3	23.6	80.8	11.4	19.1
Pdk 28	9 Jan	17.0	28.7	5.2	10.9	42.3	25.3	78.7	11.1	17.9
Pdk 23	22Jan	12.8	31.5	5.2	8.3	44.3	27.0	76.5	10.8	19.3
Pdk 46	22Jan	10.4	15.7	3.7	8.9	56.2	34.3	56.6	8.3	33.9
Pdk 6	7 Feb	13.4	25.8	4.8	11.8	47.3	24.4	75.0	11.0	18.1
Pdk 12	21Feb	13.8	28.4	5.1	9.0	50.2	24.2	77.0	11.4	19.5
Pdk 21	21Feb	15.0	29.0	5.0	9.3	48.6	25.7	77.4	11.1	17.9
Pdk 23	5 Mar	10.4	30.5	5.2	10.5	48.2	25.4	76.6	11.0	17.9
Pdk 27	5 Mar	12.8	31.4	5.3	9.5	48.2	24.9	79.3	11.4	15.8
Pdk 11	18Mar	15.8	35.5	5.0	10.0	40.2	21.7	>85	12.6	12.8
Pdk 26	18Mar	15.4	31.1	4.6	10.5	48.2	22.6	84.3	12.4	16.8
Pdk 46	1 Apr	19.0	31.6	5.6	9.3	44.6	23.3	83.8	12.0	13.1
Pdk 32	1 Apr	14.5	33.8	5.9	8.5	41.5	22.3	84.5	12.0	13.7
Pdk 11	16Apr	17.8	29.6	4.8	13.9	34.4	24.0	84.3	12.1	13.0
Pdk 21	16Apr	17.4	30.6	5.3	12.4	39.5	24.0	84.8	12.1	13.6
Pdk 36	1May	12.2	30.4	4.4	11.9	43.1	22.8	84.0	12.1	13.1
Pdk 46	1May	12.0	31.9	4.7	9.8	46.9	22.8	>85	12.3	14.7
Pdk 26	14May	11.4	31.4	5.7	13.6	38.6	24.1	84.6	11.8	17.2
Pdk 35	14May	9.2	27.1	5.0	14.2	43.4	25.7	78.7	11.0	18.3
Pdk 14	2 Jul	11.8	27.1	5.0	10.6	48.6	25.2	79.1	11.5	21.1
Pdk 26	2 Jul	14.2	27.4	5.2	13.3	43.3	21.5	84.0	12.4	20.7
Pdk 14	23 Jul	12.4	28.8	5.3	13.5	43.3	25.4	80.2	11.5	15.8
Pdk 26	23 Jul	15.2	30.5	5.4	11.3	44.7	23.5	82.8	11.8	14.2

Northern Southland

Description	Date	RPM	% prot	% Lipid	% SSS	% NDF	% ADF	OMD	MJME/kg DM	%DM
Pdk 21	17Oct	14.4	32.4	4.7	9.2	41.3	24.3	84.9	12.2	13.4
Pdk 31	17Oct	13.8	32.6	5.5	8.6	38.9	24.3	>85	12.2	13.8
Pdk 15	31Oct	10.2	24.8	4.1	16.5	41.6	23.6	>85	12.4	14.0
Pdk 2	31Oct	10.4	27.5	5.2	18.1	41.7	23.8	>85	12.4	15.2
Pdk 18	14Nov	20.6	23.1	4.3	19.7	42.9	24.2	83.3	12.2	19.2
Pdk 22	14Nov	12.6	26.0	4.2	17.4	41.8	23.3	>85	>12.7	19.0
Pdk 7	28Nov	11.4	20.1	3.4	18.2	47.9	26.3	80.3	11.9	23.4
Pdk 8	28Nov	12.2	17.4	2.6	16.0	54.1	28.6	78.1	11.6	24.1
Pdk 18	12Dec	9.8	20.3	4.0	13.6	52.5	27.6	74.2	10.9	19.2
Pdk 4	12Dec	11.4	17.9	3.5	10.4	58.3	30.7	67.1	10.1	23.0
Pdk 22	9 Jan	8.8	25.4	4.4	9.9	46.3	26.8	74.6	10.7	24.2
Pdk 21	9 Jan	12.2	20.8	4.3	11.8	46.2	29.1	69.8	10.0	23.1
Pdk 21	22Jan	9.2	27.1	4.6	9.4	51.1	24.6	78.3	11.3	19.2
Pdk 22	7 Feb	8.0	18.1	3.4	9.3	57.6	32.4	62.2	9.3	36.8
Pdk 18	21Feb	7.6	21.8	4.7	10.0	54.1	26.0	69.1	10.2	26.4
Pdk 2	5 Mar	7.8	22.6	4.9	12.2	51.0	23.8	72.6	10.7	22.1
Pdk 16	18Mar	10.4	30.1	4.6	12.0	38.3	22.0	82.2	11.7	16.8
Pdk 25	18Mar	9.2	32.6	4.8	9.9	45.9	23.5	81.2	11.9	18.2
Pdk 6	1 Apr	13.2	25.6	4.4	11.7	46.4	25.0	77.7	11.1	15.4
Pdk 18	1 Apr	9.8	28.9	5.3	13.8	40.6	23.2	83.8	12.1	14.7
Pdk 27	16Apr	10.6	32.3	6.0	12.6	36.2	21.0	>85	12.9	16.2
Pdk 32	16Apr	14.2	25.0	4.2	14.6	41.5	25.5	77.7	11.0	18.0
Pdk 25	1 May	12.2	25.3	4.6	14.1	44.8	23.7	81.9	12.0	17.8
Pdk 3	1 May	13.2	28.8	5.1	12.9	46.1	21.4	83.0	12.3	15.8
Pdk 26	14May	9.1	27.6	5.5	18.3	35.4	23.0	83.1	12.0	15.9
Pdk 22	14May	10.6	27.1	5.4	15.4	42.3	24.2	82.0	11.8	20.3
Pdk 18	2 Jul	9.4	25.8	4.9	15.7	44.0	22.8	84.3	12.3	18.4
Pdk 9	2 Jul	10.4	26.5	4.5	16.6	40.2	23.2	>85	12.4	15.0
Pdk 9	23 Jul	10.8	28.6	4.7	10.6	49.2	24.5	80.0	11.7	13.9
Pdk 18	23 Jul	9.4	23.7	4.5	16.6	46.5	25.1	81.2	11.7	15.0