Harakeke Case Study

Executive Summary

Harakeke dairy farm looks out across Foveaux strait on the Southern coastline of the South Island. In October 2022 the business adopted Halter, early in the 2022/23 milking season.
With Farmax analysis of the whole physical farm system, relative to the average of the 2020/21 & the 2021/22 seasons pre-Halter, the 2023/24 season (second season) with Halter saw pasture eaten per effective grazed hectare increase by 10.3%. This pasture eaten increase was achieved with a moderate reduction in the rate of Nitrogen fertiliser per hectare relative to the pre-Halter seasons. Production increased by 7.9% per cow. Reproduction performance metrics have remained at similar levels to pre-Halter for both 6 week in-calf rate and not-in calf (empty) rate. Staffing levels across the operation dropped in year one with Halter from 3.5 to 3.0 full time equivalent (FTE), while average weekly hours worked dropped from an average of 55 hours per person pre-Halter to 47.5 hours with Halter. There has been a positive lift in general output from staff with Halter, as well as higher work satisfaction.

Table 1: Harakeke Performance Before and Post Implementation of Halter

Season	Pre-Halter: 2020/21, 2021/22	Halter: 2023/24	Percentage Change
Pasture Eaten – kgDM/ha (Grazed Hectares)	10,150	11,200	10.3%
Kilograms of Milk Solids per Cow – kgMS/cow	477	514	7.8%
Kilograms of Milk Solids per Hectare – kgMS/ha (Total Hectares)	1496	1623	8.5%
Nitrogen Fertiliser -kg N/ha (Total Hectares)	186	140	-24.7%
6 Week in Calf Rate - ICR	74.5%	76.0%	1.5%
Not in Calf (Empty) rate	13.0%	12.7%	0.3%
Cows/FTE	194	228	17.5%
Lameness	63	25	-60.3%
Earnings Before Interest and Taxes (EBIT) Per Hectare	$6301	$7526	19.4%

Farm Background

Harakeke dairy farm has been farmed by the Templeton family since 1911. Peter Templeton was 50/50 sharemilking on the farm prior to 2020, leased and operated the farm from 2020/21 three seasons, and then purchased the farm outright in August 2023.

The dairy farm is a 217 effective hectare dairy platform on terraced, flat ground with a mix of Aranui and Waikuku sandy soils as well as seams of Paiko poorly-drained Peat soils. There is an adjoining support block of 64 hectares which grazes replacement stock and provides wintering. The farm peak milks 680 - 685 cows total and has a herringbone cow shed with an in-shed feeding system used to feed grain and blends with DDG and CGM as well as Palm Kernel. The

farm operates a spring calving system with all cows wintered off the dairy platform. The farm is not irrigated and has an annual rainfall level of around 1100 mm.

Operating as a System 3, the farming system feeds grain and blends with DDG (dried distillers grain) and CGM (corn gluten meal) as well as Palm Kernel and molasses. Pasture silage is fed on the shoulders of the season and around 4.5% of the platform grows turnips for summer feeding. The Jersey cross herd have an average BW just under 300, PW of 335 and produce close to 110% of liveweight as Milksolids.

Reasons for Halter

Peter first opted to install Halter with a view to gain efficiencies right across the farming operation, with primary motivations being to harvest more pasture and to ease pressure on staff through intensive calving and mating periods.

Management Changes Made

The farm is close to finishing its third full season with Halter, the management changes are reflective of the first two and a half seasons with Halter.

GRAZING MANAGEMENT

Pasture management changes pre and post Halter were initially intensive and then softened somewhat- Peter operates similar allocation principles as pre-Halter with 60%/40% splits of daily area allocation night & day. He started with lots of breaks through a 24 hour period but has gone back to one break per 12 hours unless there are bad weather conditions when more breaks are used. All fences on the dairy platform remain intact – the main changes made have consisted of 2 posts plus an 26 additional troughs to provide 2 troughs per paddock. Peter has found that ranking of paddocks on performance is easier to use and has better visuals compared to other systems. He has also found that the pasture predication models are improving and finds the MJME calculator very helpful and is using this feature more and more in the current season.

Herd changes enabled by Halter have been a key benefit. Previously Peter ran a one herd system plus a second sick cow herd. Now Peter runs two main herds plus a sick cow herd and believes this is helping consistency of milk yield and reduces competition impacts on younger and less dominant cows within the herd. A once a day (OAD) mob is able to be used more strategically and this year Peter has lifted the OAD herd size.

TRANSITION AND WINTERING

Wintering has been simplified somewhat with Halter, although a key challenge with the technology is that coastal drift impacting GPS accuracy can be significant up to 1-2M/cow in rough weather so needs to be allowed for in management. Feed allocation is more consistent, and Peter has found that he is able to react faster to changes with Halter. The cows spend the first two months on crop which has changed from swedes pre-Halter to Kale. In late July mid and late calvers are fed grass and silage in a ‘bale grazing’ system. Halter makes the switching and transition from crop to grass wintering easy to manage. Peter has also found that for wintering the efficiency of each labour unit is twice that of pre-Halter, as the removal of physical fence and break setting allows more time for observation and fine tuning – this is vital as there is greater potential for poorer visual monitoring of animal physical conditions and health when there is less time spent out in the paddock.

ENVIRONMENTAL

Grazing heat maps are being used to be more selective with maintenance fertiliser applications- management changes so far include excluding the first third of paddocks, gateways and grazing hotspots, and strategic fertiliser placement which should drive better nutrient use efficiency, reduce metabolic risk for animals and minimise nutrient loss risk.

Another key environmental benefit found from using Halter has been better management of critical source areas (CSA), by grazing close to waterways or CSA's for a short time of around 1 hour on and then shifting animals away so dung and urine are less likely to be deposited in high amounts, and the nutrient are effectively exported away from CSA's. In adverse weather conditions Peter will typically use 4-8 breaks per day on paddocks to minimise pugging damage and has used up to 16 breaks in extreme conditions. In the future Peter is hopeful that regional councils may allow no fencing around critical source areas (CSA's) on the property with the use of technology like Halter.

Nitrogen fertiliser use has also been reduced with Halter by close to 50 kgN per hectare and the farm has had a higher level of pasture harvested with similar levels of imported supplementary feed.

LABOUR

Peter believes that the most labour time gains come from not following cows into the shed or other shifts on farm, with a secondary gain being 0.5 - 1 hour per day saved on not shifting fences. FTE were reduced in the first season with Halter. Following this, in the second season Peter employed more FTE's, but this was due to him spending significant time away overseas undertaking a Nuffield scholarship – something that he believes would not have been feasible to do if he did not have Halter on the farm.

In terms of work satisfaction, it is a lot higher – Halter supports the ability for staff to make more consistent decisions like a manager, and they are less likely to have repeated mistakes which Peter believes are where performance is always negatively impacted.
As far as observed changes in quality of decision making – Halter helps saves time but they do have to spend more time on their phone. The positive is that when staff are engaged and know how to operate Halter, this does give them the ability to make 95% of the decisions of a farm owner. From a broader perspective Peter sees that Halter doesn't necessarily save a staff member- it 'retains' a staff member.

REPRODUCTION & ANIMAL HEALTH

Prior to Halter the mating program was using conventional heat detection with tail-paint and multiple hours for several weeks manually identifying cows on heat. Halter has greatly simplified and refined the heat detection process and has seen consistent rates of reproductive performance with no effective change in 6 week in-calf rate or not-in calf (empty) rate. Peter is planning to only do 8 weeks mating in the current season – based on personal philosophy, and believes that Halter gives him the confidence by putting accurate numbers in front of you to make accurate decisions and the right call on a shorter total mating period.

Regarding animal health, there has been an ability to notice sick animals faster with alerts and the trend has been more animal health interventions because there is more data.

The flipside is that cow wastage is reducing – so culling pressure can be higher because cows are lasting longer - this will only improve the standard of the herd over time, or allow a lower replacement rate. Due to confidence in the Halter rumination and animal recovery data Peter has gone to 3 weekly metri-cures now, cows are drafted through Protrack utilising rumination data – low rumination cows are also drafted into the OAD Mob and more frequent metri-checking is done in the OAD mob.

OTHER BENEFITS / IMPACTS

Peter is saving an estimated 3-4 hours in his day due to using Halter, differences he is now observing are: more consistency in management decisions and actions and 2: general output from farm staff has increased exponentially - it is easier for staff to be more accurate and consistent now. There is a drive towards the type of farm staff being more technical types of people also. Peter sees Halter being unique as a tool to lift both the bottom and top of the performance curve. Peters role has had to become more focused on visual observation of the farm and system – less of production and numbers as that is taken care of.

Some disadvantages that Peter has dealt with are stockwater issues becoming more commonplace and fence power maintenance – both are impacted by staff needing to be in the paddocks less often than prior to Halter, so you have to make changes to get people out there – getting staff back measuring residuals is one way he has driven this.

Financial

Financial results are modelled using a standardised approach across all case studies. The overall change in EBIT between the 2020/21, 2022/23 seasons (pre-halter) and the 2023/24 season (with halter) showed an increase in Earnings Before Interest and Tax (EBIT) of 19%. Pre-Halter EBIT was $6301 per hectare while post implementation of Halter saw an increase to $7526 per hectare.

Conclusion

The implementation of Halter at Harakeke dairy farm has resulted in significant improvements across the operation. By increasing pasture harvested per hectare while simultaneously reducing nitrogen fertiliser, the farm has achieved a more sustainable approach to pasture management. Additionally, the rise in per-cow production showcases the efficiency gains facilitated by Halter, contributing to a more productive dairy operation. Labour efficiencies have also been notable, with a reduction in full-time equivalent staff and fewer weekly hours worked per person, while staff satisfaction and output have improved. These changes demonstrate the effectiveness of Halter in optimizing farm management without compromising animal welfare, reproductive performance, or workforce well-being.

Beyond productivity and labour advantages, Halter has supported critical environmental and herd management advancements. The technology has enabled strategic fertiliser application, better CSA management, and enhanced flexibility in wintering practices, ensuring improved sustainability. Changes in herd structure have supported consistent milk yield and reduced competitive pressures, while advancements in reproductive monitoring and animal health interventions have led to more efficient management decisions. Overall, Halter has delivered a more precise and responsive farming system, freeing up time for the farm operator while simultaneously elevating the performance and resilience of the operation. The farm's experience highlights the transformative potential of technology-driven solutions in modern dairy farming.

Appendix: Farmax Modelling Summaries

FARMAX

Compare Physical Summary

Jun 20 - May 21

		Pre-Halter - 2020-21 season	Pre-Halter - 2021-22 season	Post-Halter - 2022-23 season	Post-Halter - 2023-24 season	
Farm	Effective Area	217	217	217	217	ha
	Stocking Rate	3.1	3.1	3.1	3.2	cows/ha
	Comparative Stocking Rate	90.9	93.1	93.2	94.8	kg Lwt/t DM eaten
	Potential Pasture Growth	12.3	10.8	13.4	14.5	t DM/ha
	Nitrogen Use per graze ha	199	255	162	89	kg N/ha
	Feed Conversion Efficiency (eaten)	10.2	9.9	9.7	9.6	kg DM eaten/kg MS
Herd	Cow Numbers (1st July)	705	700	704	704	cows
	Peak Cows Milked	681	680	683	685	cows
	Days in Milk	271	275	277	279	days
	Avg. BCS at calving	5.1	5.1	5.1	5.1	BCS
	Liveweight per graze ha	1,431	1,434	1,519	1,522	kg/ha
Production	Milk Solids total	323,078	325,926	347,983	352,215	kg
(to Factory)	Milk Solids per graze ha	1,536	1,549	1,672	1,671	kg/ha
	Milk Solids per cow	474	479	509	514	kg/cow
	Peak Milk Solids production	2.09	2.10	2.35	2.33	kg/cow/day
	Milk Solids as % of live weight	107.3	108.1	110.1	109.8	%
Feeding	Pasture Eaten per cow *	3.22	3.06	3.32	3.44	t DM/cow
	Supplements Eaten per cow *	0.95	1.13	1.06	0.92	t DM/cow
	Off-farm Grazing Eaten per cow *	0.70	0.58	0.58	0.58	t DM/cow
	Total Feed Eaten per cow *	4.86	4.77	4.96	4.94	t DM/cow
	Pasture Eaten per graze ha	10.42	9.88	10.92	11.20	t DM/ha
	Supplements Eaten per graze ha	3.17	3.76	3.58	3.09	t DM/ha
	Off-farm Grazing Eaten per graze ha	3.68	3.66	3.72	3.65	t DM/ha
	Total Feed Eaten per graze ha	17.28	17.30	18.22	17.93	t DM/ha
	Supplements and Grazing / Feed Eaten *	33.80	35.87	33.04	30.28	%
	Bought Feed / Feed Eaten *	10.35	8.23	12.21	9.36	%
Diagnostics	Cow Pasture Eaten	2,192.07	2,078.07	2,270.42	2,358.90	t DM
	Cow Total Supp Feed Eaten	645.47	769.74	724.34	628.83	t DM
	Cow Total Grazing Feed Eaten	473.56	392.54	395.90	395.76	t DM
	Cow Total Eaten	3,311.10	3,240.35	3,390.66	3,383.49	t DM
	Cow Bought Feed Eaten	342.62	266.72	413.90	316.70	t DM
	All Pasture Eaten	2,193.37	2,079.27	2,271.62	2,360.19	t DM
	All Total Supp Feed Eaten	667.18	790.86	745.55	650.92	t DM
	All Total Grazing Feed Eaten	774.55	770.52	774.34	768.78	t DM
	All Total Eaten	3,635.10	3,640.65	3,791.51	3,779.89	t DM
	All Bought Feed Eaten	342.62	266.72	413.90	316.70	t DM
	Total Cow Dec Lwt	301,053	301,639	316,176	320,833	kg

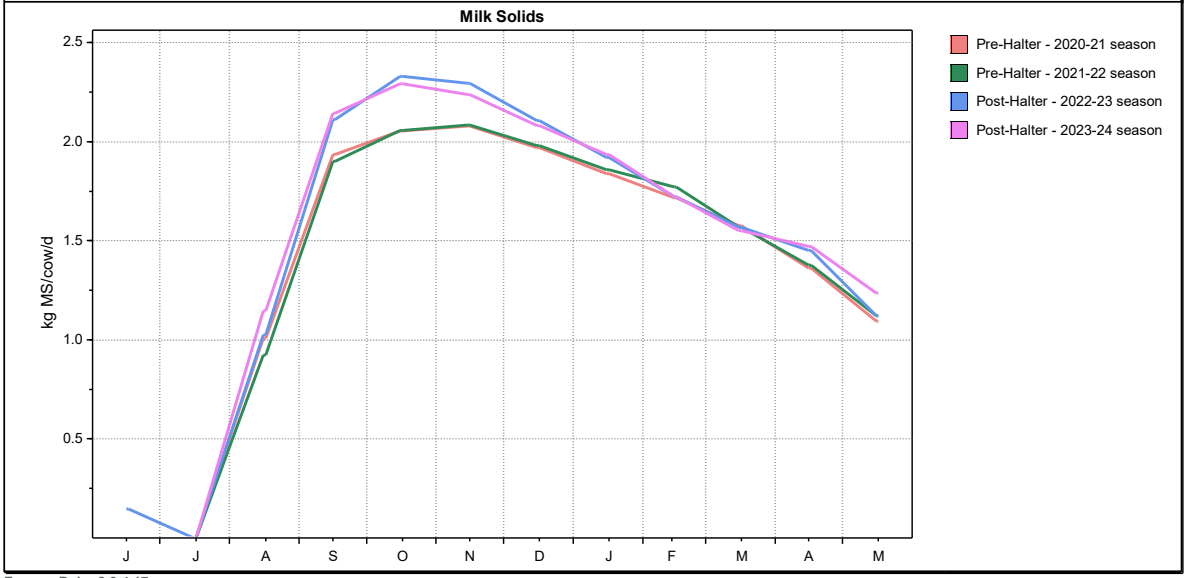
(*) feed eaten by females > 20 months old / peak cows milked

Farmax Dairy 8.3.4.17

FARMAX

Compare Milk Solids

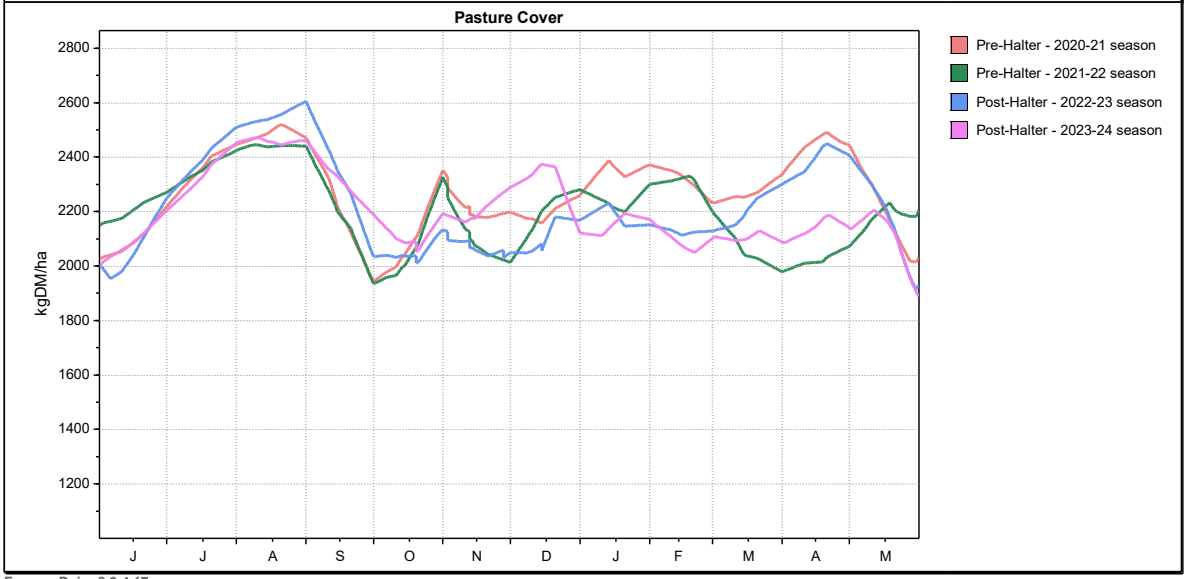
Jun 20 - May 21



FARMAX

Compare Cover

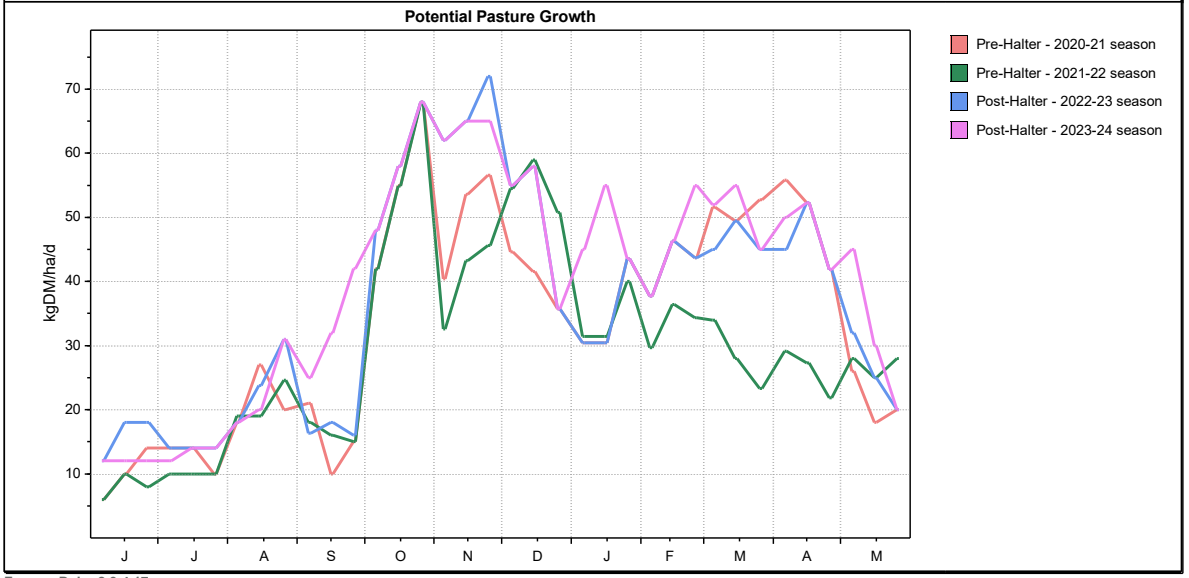
Jun 20 - May 21



FARMAX

Compare Pasture Growth

Jun 20 - May 21

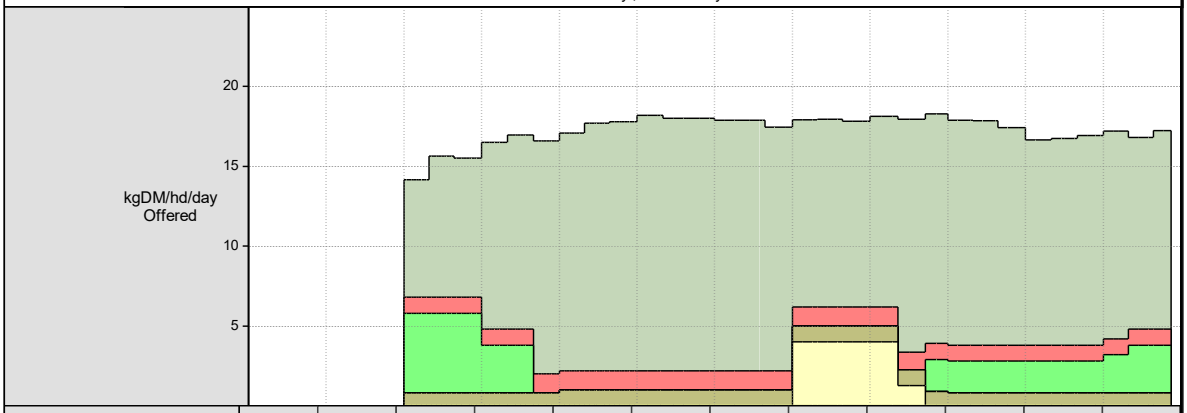


Pre-Halter – Milker feeding

FARMAX

Feed Offered for Cows at home

Haraheke - Halter ROI : Dairy , Jun 20 - May 21



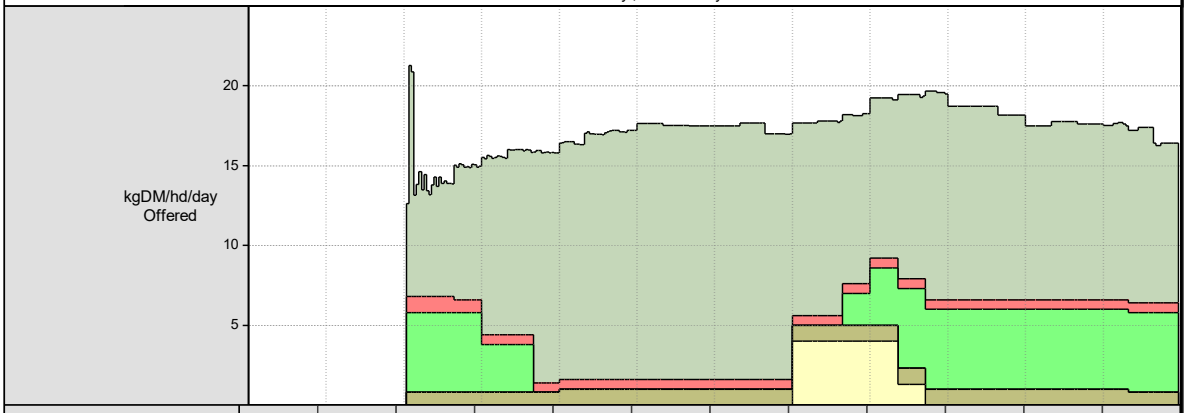
Select a Feed	J	J	A	S	O	N	D	J	F	M	A	M
Pasture			8.3	12.8	15.3	15.9	15.5	11.7	13.6	13.9	13.0	12.5
Barley/DDG/CGM			1.0	1.1	1.2	1.2	1.2	1.2	1.1	1.0	1.0	1.0
F2 Pasture Silage			5.0	2.0					0.6	2.0	2.0	2.8
Palm Kernel			0.8	0.8	1.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8
Bulb Turnip								4.0	1.9			
Total (Utilised)			12.2	14.1	14.9	15.4	15.1	15.2	15.4	15.0	14.2	14.4

Farmax Dairy 8.3.4.17

FARMAX

Feed Offered for Cows at home

Haraheke - Halter ROI : Dairy , Jun 21 - May 22



Select a Feed	J	J	A	S	O	N	D	J	F	M	A	M
Pasture			10.1	12.5	15.4	16.0	15.8	11.6	11.4	11.9	11.0	10.7
Barley/DDG/CGM			0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
F2 Pasture Silage			5.0	2.0				0.7	4.5	5.0	5.0	5.0
Palm Kernel			0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Bulb Turnip								4.0	1.9			
Total (Utilised)			13.6	13.4	14.4	14.9	14.7	15.2	16.3	15.5	14.7	14.3

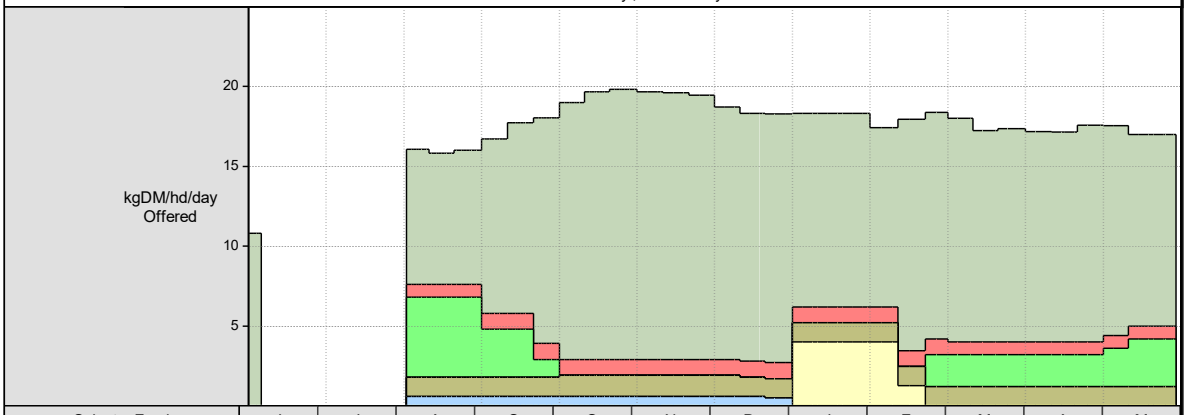
Farmax Dairy 8.3.4.17

Post-Halter – Milker feeding

FARMAX

Feed Offered for Cows at home

Haraheke - Halter ROI : Dairy , Jun 22 - May 23



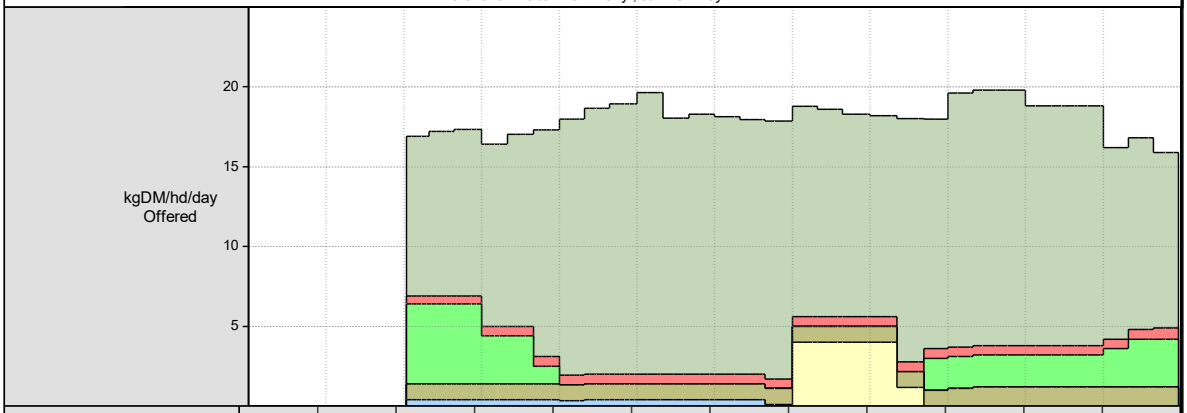
Select a Feed	J	J	A	S	O	N	D	J	F	M	A	M
Pasture	10.8		8.4	12.3	16.6	16.7	15.6	12.1	13.2	13.5	13.3	12.4
Barley/DDG/CGM			0.8	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8
F2 Pasture Silage			5.0	2.4					0.6	2.0	2.0	2.8
Palm Kernel			1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Bulb Turnip								4.0	1.9			
Molasses			0.6	0.6	0.6	0.6	0.6					
Total (Utilised)	8.6		13.0	14.8	16.6	16.7	15.7	15.5	15.2	14.8	14.6	14.4

Farmax Dairy 8.3.4.17

FARMAX

Feed Offered for Cows at home

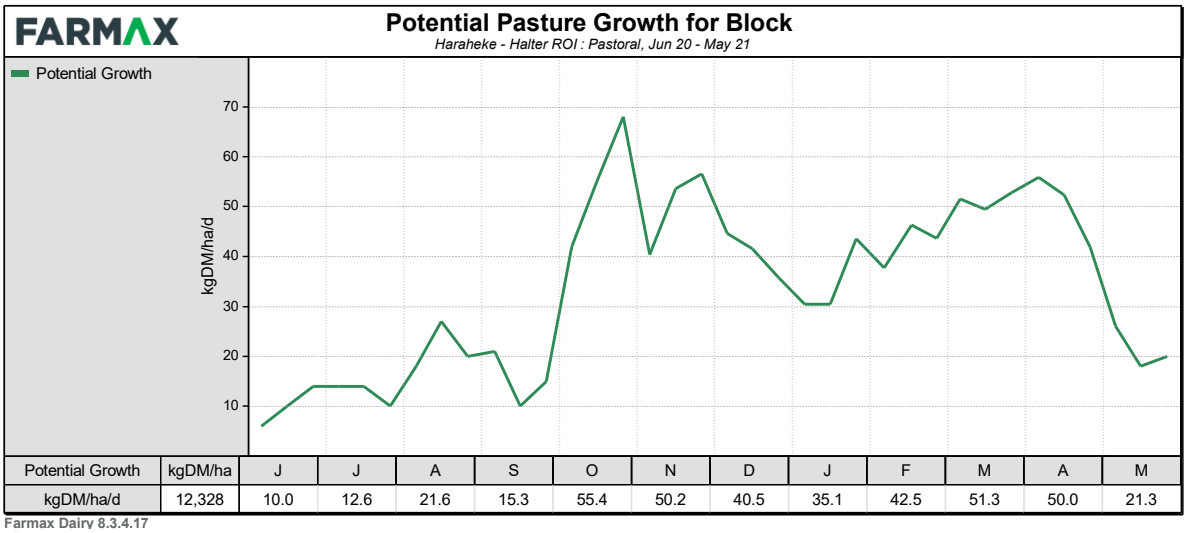
Haraheke - Halter ROI : Dairy , Jun 23 - May 24



Select a Feed	J	J	A	S	O	N	D	J	F	M	A	M
Pasture			10.3	12.6	16.6	16.7	16.1	12.9	14.1	16.0	15.0	11.6
Barley/DDG/CGM			0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
F2 Pasture Silage			5.0	2.4					0.6	2.0	2.0	2.8
Palm Kernel			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2	1.2
Bulb Turnip								4.0	1.8			
Molasses			0.4	0.4	0.4	0.4	0.3					
Total (Utilised)			13.8	14.3	15.8	15.9	15.3	15.7	15.3	16.6	15.8	13.6

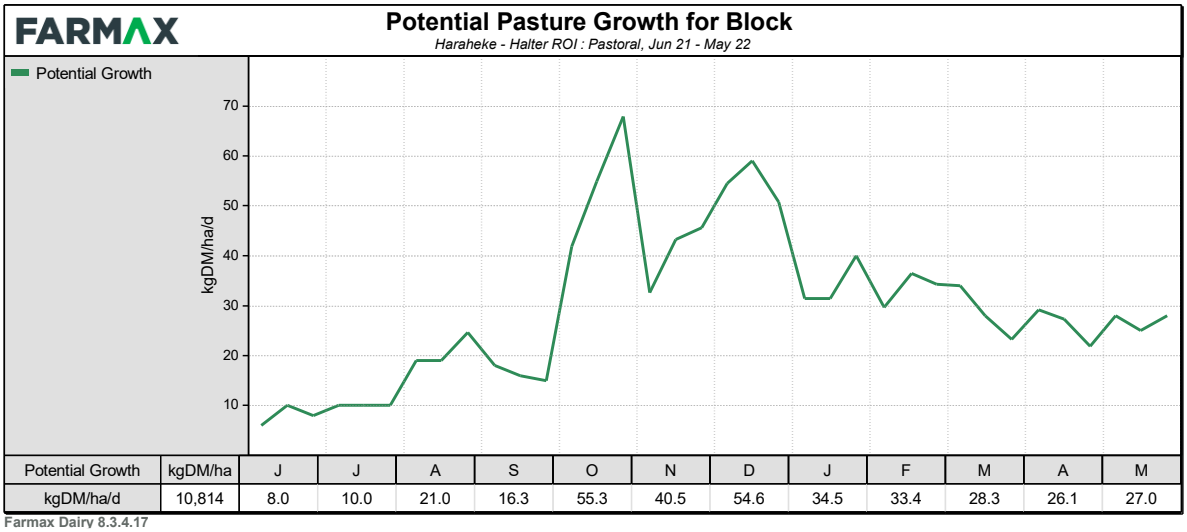
Farmax Dairy 8.3.4.17

Pre-Halter - Base Growth rates



Potential Growth	kgDM/ha	J	J	A	S	O	N	D	J	F	M	A	M
kgDM/ha/d	12,328	10.0	12.6	21.6	15.3	55.4	50.2	40.5	35.1	42.5	51.3	50.0	21.3

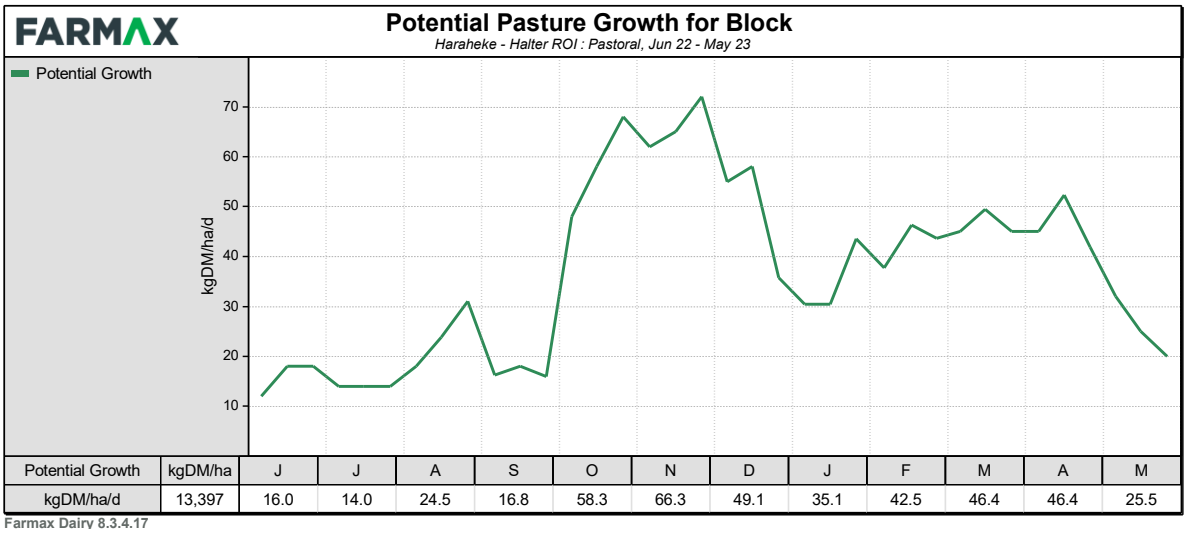
Farmax Dairy 8.3.4.17



Potential Growth	kgDM/ha	J	J	A	S	O	N	D	J	F	M	A	M
kgDM/ha/d	10,814	8.0	10.0	21.0	16.3	55.3	40.5	54.6	34.5	33.4	28.3	26.1	27.0

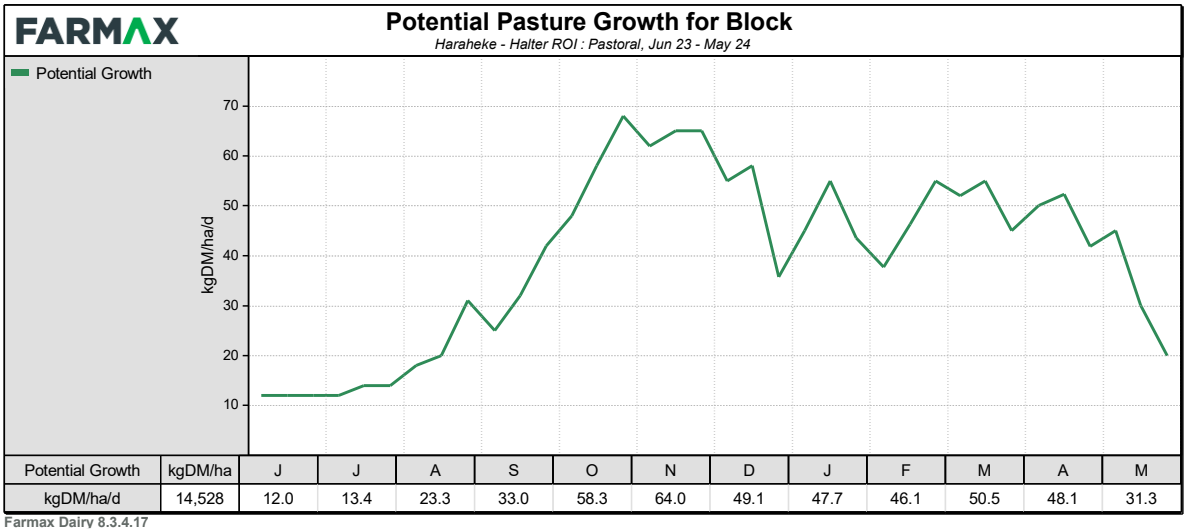
Farmax Dairy 8.3.4.17

Post-Halter - Base Growth rates



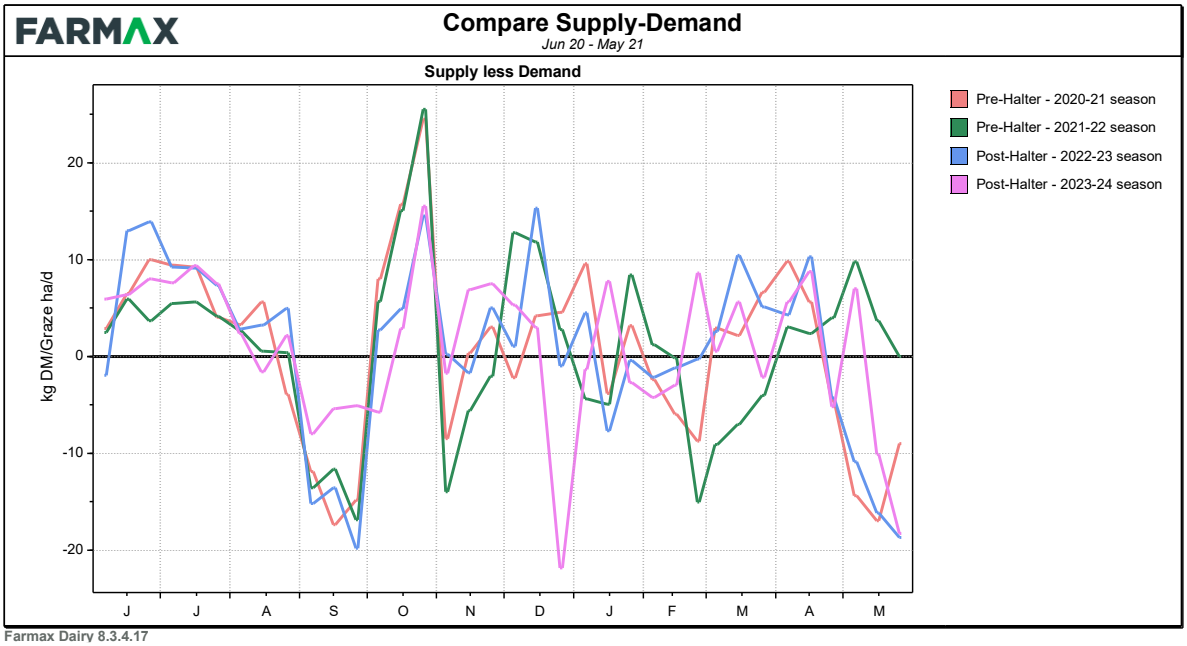
Potential Growth	kgDM/ha	J	J	A	S	O	N	D	J	F	M	A	M
kgDM/ha/d	13,397	16.0	14.0	24.5	16.8	58.3	66.3	49.1	35.1	42.5	46.4	46.4	25.5

Farmax Dairy 8.3.4.17



Potential Growth	kgDM/ha	J	J	A	S	O	N	D	J	F	M	A	M
kgDM/ha/d	14,528	12.0	13.4	23.3	33.0	58.3	64.0	49.1	47.7	46.1	50.5	48.1	31.3

Farmax Dairy 8.3.4.17



Farmax Dairy 8.3.4.17

FARMAX

Compare Physical Summary

Jun 20 - May 21

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Farm	Effective Area	217	217	217	217	ha
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	Potential Pasture Growth	12.3	10.8	13.4	14.5	t DM/ha
	Nitrogen Use per total ha	193	247	156	87	kg N/ha
	Feed Conversion Efficiency (eaten)	10.2	9.9	9.7	9.6	kg DM eaten/kg MS
Herd	Cow Numbers (1st July)	705	700	704	704	cows
	Peak Cows Milked	681	680	683	685	cows
	Days in Milk	271	275	277	279	days
	Avg. BCS at calving	5.1	5.1	5.1	5.1	BCS
	Liveweight per total ha	1,387	1,390	1,457	1,478	kg/ha
Production	Milk Solids total	323,078	325,926	347,983	352,215	kg
(to Factory)	Milk Solids per total ha	1,489	1,502	1,604	1,623	kg/ha
	Milk Solids per cow	474	479	509	514	kg/cow
	Peak Milk Solids production	2.09	2.10	2.35	2.33	kg/cow/day
	Milk Solids as % of live weight	107.3	108.1	110.1	109.8	%
Feeding	Pasture Eaten per cow *	3.22	3.06	3.32	3.44	t DM/cow
	Supplements Eaten per cow *	0.95	1.13	1.06	0.92	t DM/cow
	Off-farm Grazing Eaten per cow *	0.70	0.58	0.58	0.58	t DM/cow
	Total Feed Eaten per cow *	4.86	4.77	4.96	4.94	t DM/cow
	Pasture Eaten per total ha	10.11	9.58	10.47	10.88	t DM/ha
	Supplements Eaten per total ha	3.07	3.64	3.44	3.00	t DM/ha
	Off-farm Grazing Eaten per total ha	3.57	3.55	3.57	3.54	t DM/ha
	Total Feed Eaten per total ha	16.75	16.78	17.47	17.42	t DM/ha
	Supplements and Grazing / Feed Eaten *	33.80	35.87	33.04	30.28	%
	Bought Feed / Feed Eaten *	10.35	8.23	12.21	9.36	%
Diagnostics	Cow Pasture Eaten	2,192.07	2,078.07	2,270.42	2,358.90	t DM
	Cow Total Supp Feed Eaten	645.47	769.74	724.34	628.83	t DM
	Cow Total Grazing Feed Eaten	473.56	392.54	395.90	395.76	t DM
	Cow Total Eaten	3,311.10	3,240.35	3,390.66	3,383.49	t DM
	Cow Bought Feed Eaten	342.62	266.72	413.90	316.70	t DM
	All Pasture Eaten	2,193.37	2,079.27	2,271.62	2,360.19	t DM
	All Total Supp Feed Eaten	667.18	790.86	745.55	650.92	t DM
	All Total Grazing Feed Eaten	774.55	770.52	774.34	768.78	t DM
	All Total Eaten	3,635.10	3,640.65	3,791.51	3,779.89	t DM
	All Bought Feed Eaten	342.62	266.72	413.90	316.70	t DM
	Total Cow Dec Lwt	301,053	301,639	316,176	320,833	kg

(*) feed eaten by females > 20 months old / peak cows milked

FARMAX

Compare Forecast Profit and Loss

Jun 20 - May 21

			Pre-Halter - 2020-21 season	Pre-Halter - 2021-22 season	Post-Halter - 2022-23 season	Post-Halter - 2023-24 season
Revenue	Stock	Net Milk Sales - this season	2,895,976	2,921,985	3,119,494	3,157,459
		Net Livestock Sales	110,442	110,442	110,442	110,442
		Total	3,006,418	3,032,426	3,229,936	3,267,901
	Crop & Feed	Capital Value Change	1	0	0	0
		Total	1	0	0	0
	Total Revenue		**3,006,419**	**3,032,426**	**3,229,936**	**3,267,901**
Expenses	Wages	Wages	175,000	175,000	140,000	151,135
		Management Wage	110,000	110,000	110,000	110,000
	Stock	Animal Health	76,840	76,727	77,066	77,292
		Breeding	59,840	59,752	60,016	60,192
		Farm Dairy	25,840	25,802	25,916	25,992
	Feed/Crop	Pasture Conserved	92,594	187,556	79,634	99,159
		Feed Crop	15,000	15,000	15,000	15,000
		Bought Feed	177,703	129,882	205,761	152,752
		Calf Feed	65	65	65	65
	Grazing	Grazing	435,322	432,627	434,783	435,173
		Run-Off Lease	11,718	11,718	11,718	11,718
	Other Farm Working	Fertiliser (Excl. N)	61,845	61,845	61,845	61,845
		Nitrogen	99,709	128,146	80,596	45,012
		Regrassing	18,333	18,333	18,333	18,333
		Weed & Pest Control	3,689	3,689	3,689	3,689
		Vehicle Expenses	26,257	26,257	26,257	26,257
		Fuel	21,483	21,483	21,483	21,483
		R&M Land/Buildings	72,261	72,261	72,261	72,261
		R&M Plant/Equipment	26,474	26,474	26,474	26,474
		Freight & Cartage	4,557	4,557	4,557	4,557
		Other Expenses	10,416	10,416	125,160	125,496
	Overheads	Administration Expenses	41,881	41,881	41,881	41,881
		Insurance	22,785	22,785	22,785	22,785
		ACC Levies	3,689	3,689	3,689	3,689
		Rates	22,568	22,568	22,568	22,568
	Total Farm Working Expenses		**1,615,869**	**1,688,513**	**1,691,537**	**1,634,808**
	Depreciation					
	Total Farm Expenses		**1,615,869**	**1,688,513**	**1,691,537**	**1,634,808**
Economic Farm Surplus (EFS)			**1,390,550**	**1,343,913**	**1,538,398**	**1,633,093**
Farm Profit before Tax			**1,390,550**	**1,343,913**	**1,538,398**	**1,633,093**
Farm Profit per ha before Tax			**6,408**	**6,193**	**7,089**	**7,526**

EFS is a measure of farm business profitability independent of ownership or funding, used to compare performance between farms.
EFS should include an adjustment for unpaid family labour and management. This can be added to the expense database as management wage.