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Back to basics on grazing tactics for spring 2024

Joseph Dunphy
Teagasc Grass10

Brendan Horan
Teagasc Moorepark

Joe Murphy
Dairy Farmer Kilkenny

National Dairy Conference 2023

Wednesday, 29 November | Lyrath Hotel, Kilkenny

PastureBase IRELAND

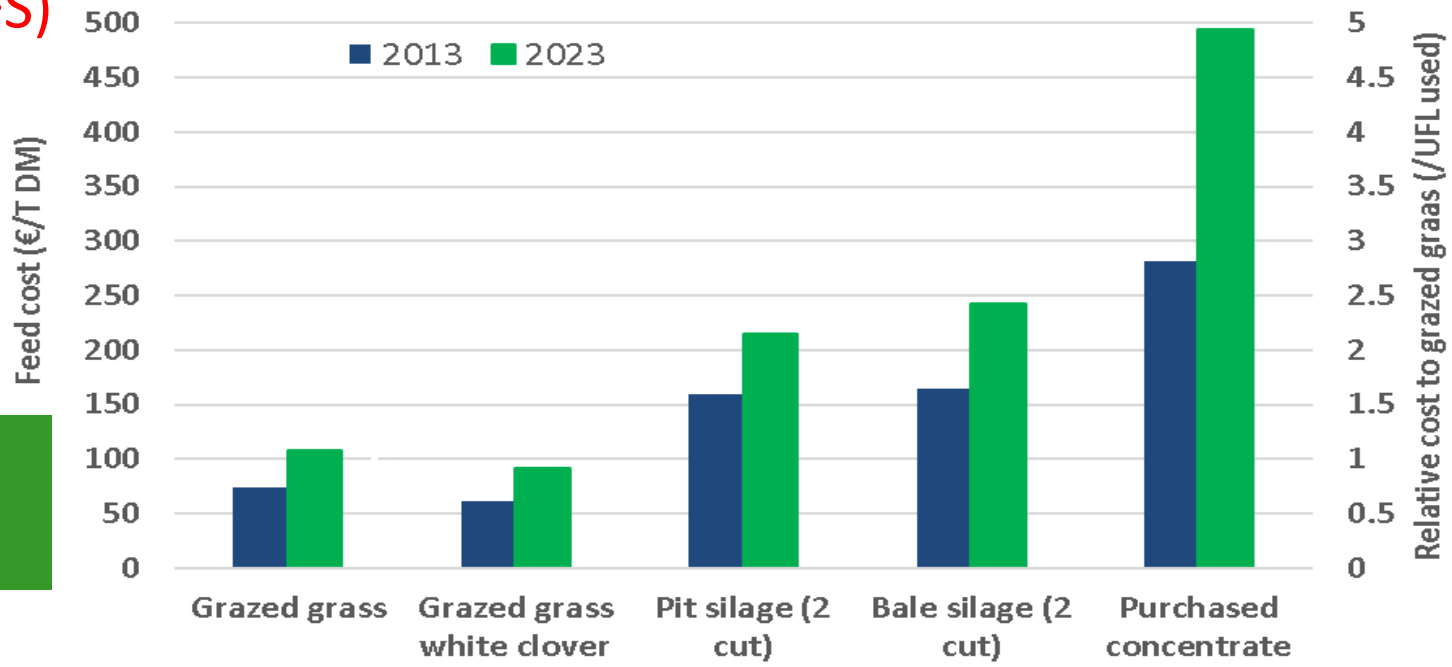
Grass10
GRASSLAND EXCELLENCE FOR IRISH LIVESTOCK

www.teagasc.ie/dairycon23

Grazing management has never been more important

- 54% increase in feed costs on Irish farms since 2021 - alternatives to grazed pasture increasingly unaffordable (NFS)

Figure 1. Actual feed costs (€/tonne) during 2013 and 2023. [Adapted from Finneran et al. 2011, Doyle et al., 2023]



€ Feed and fertiliser accounted for 15 c/l on Irish farms during 2022

- Dairy system feed requirements have increased by 40%

National stats	2012	2017	2022
Milk fat plus protein (kg/cow)	352	401	441
Overall SR (LU/ha)	1.9	2.1	2.1
Milking platform (LU/ha)	2.0	2.4	2.7

What does it take to be excellent ?

Grazing infrastructure – mapped farm, 2 gaps/paddock, water & roadways

Appropriate stocking rate – >3.5t DM grazed grass /cow/yr (>60%) ~40% of farms: 2022

Clover-based low chemical N swards -> 25% of milking platform <5% of farms in 2023

Soil fertility - >50% milking platform @ optimum P, K, pH <30% of farms in 2022

Grassland measurement – >30+ measures/yr <5% of farms in 2023; 762 farms

Active Spring Feed Budget & Spring Rotation Plan ~7% and 15% of farms in 2023

Best practice grazing management <5% of dairy farms currently

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Farm Measurements

No of Measurements on PBI by Joe Murphy	
2021	39
2022	38
2023	36

Month	Count	Cover Date(day)
January	0	
February	0	
March	2	4; 29
April	2	14; 19
May	3	3; 24; 31
June	1	10
July	3	1; 16; 22
August	3	6; 16; 29
September	2	8; 18
October	3	1; 19; 30
November	0	
December	0	
TOTAL	19	

Month	Target
Jan	1
Feb	1
Mar	2
Apr	4
May –July	4-6
Aug	4
Sept	3
Oct	3
Nov	1
Dec	1
Total	32-38

The target (in green) is to measure farm cover 30 + times per year.

Common Pitfalls-:

- No opening/ closing cover
- Not measuring weekly in April during the transition period from low to high growth rates (grass gets out of control)
- Not measuring twice per week during peak growing times. This leads to suboptimal pre-grazing yields and lower animal performance
- Stopping regular grass measuring in the autumn build up period which leads to less days at grass

Good Soil Fertility – A non-negotiable for the future

Soil Fertility Summary Total Area: 39.46(ha)

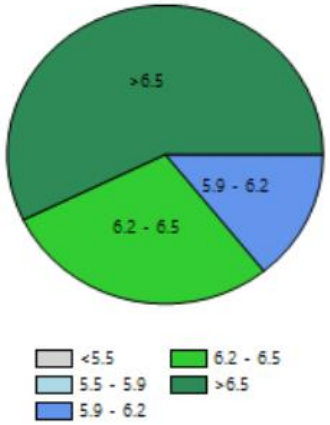
Overall Fertility Status

pH > 6.2, P & K index 3 or 4

	Ha's	%
Yes	17.64	45%
No	21.82	55%

Lime

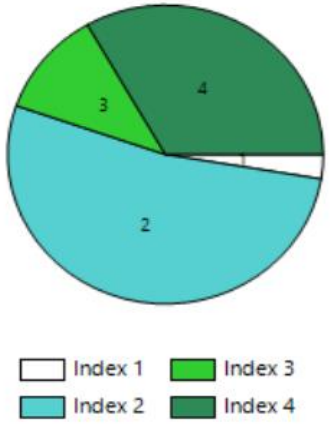
pH > 6.2



pH	Ha's	%
<5.5	0	0%
5.5 - 5.9	0	0%
5.9 - 6.2	5.63	14%
6.2 - 6.5	11.26	29%
>6.5	22.57	57%

Phosphorus

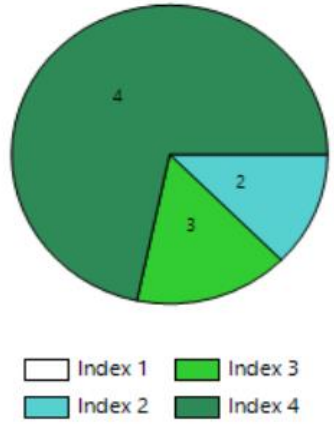
P Index



Index	Ha's	%
1	1.03	3%
2	20.79	53%
3	4.53	11%
4	13.11	33%

Potassium

K Index



Index	Ha's	%
1	0	0%
2	4.93	12%
3	6.25	16%
4	28.28	72%

Mean nitrogen use efficiency by grassland (%)*	Soil pH with optimum range (pH>6.3)	Soil P within optimum range (>Index 3)	Soil K within optimum range (>Index 3)
63%	✔	✔	✔
54%	✔	✘	✔
57%	✔	✔	✘
53%	✔	✘	✘
35%	✘	✘	✘

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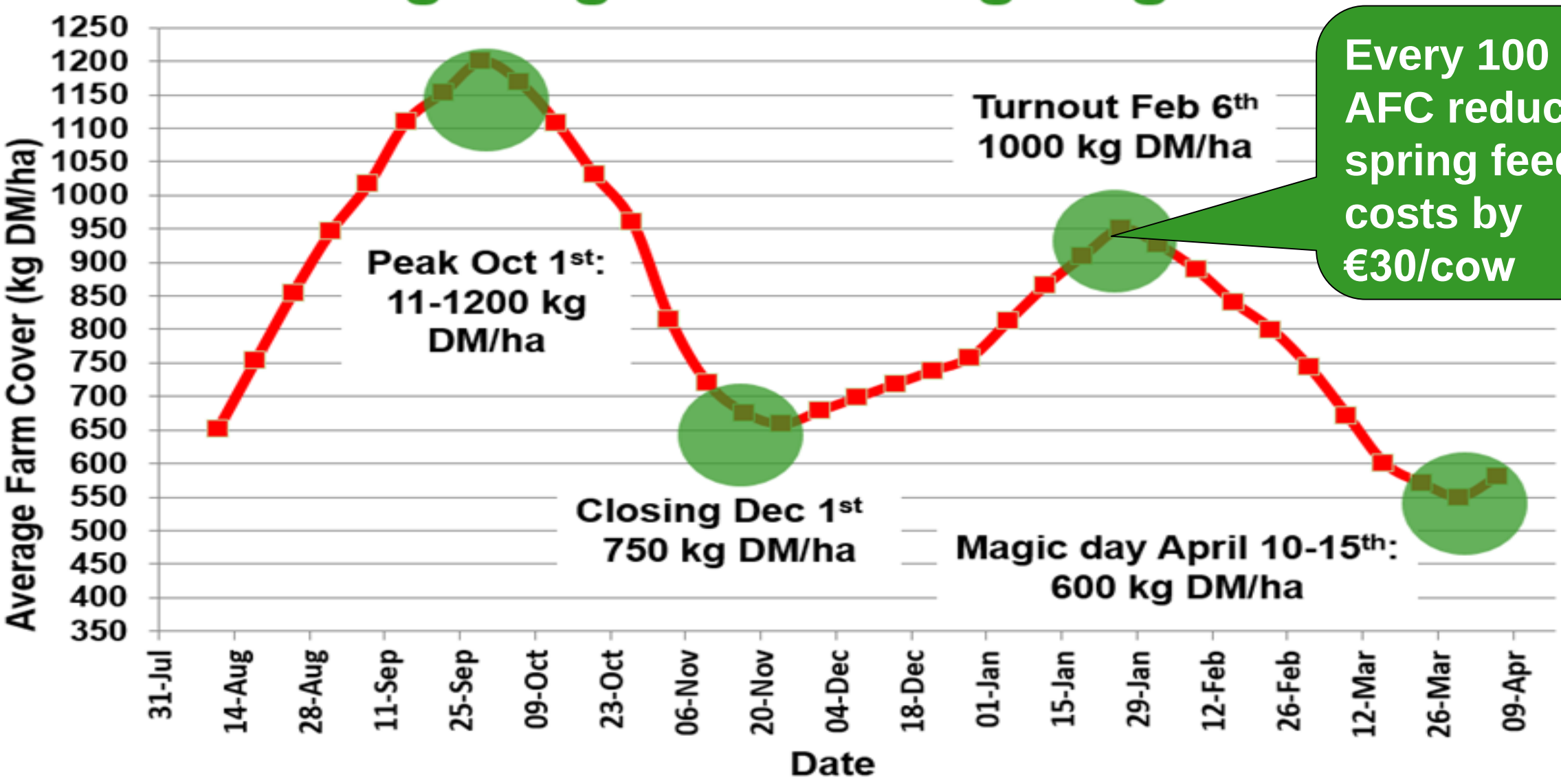
Feed budgeting – achieving target covers



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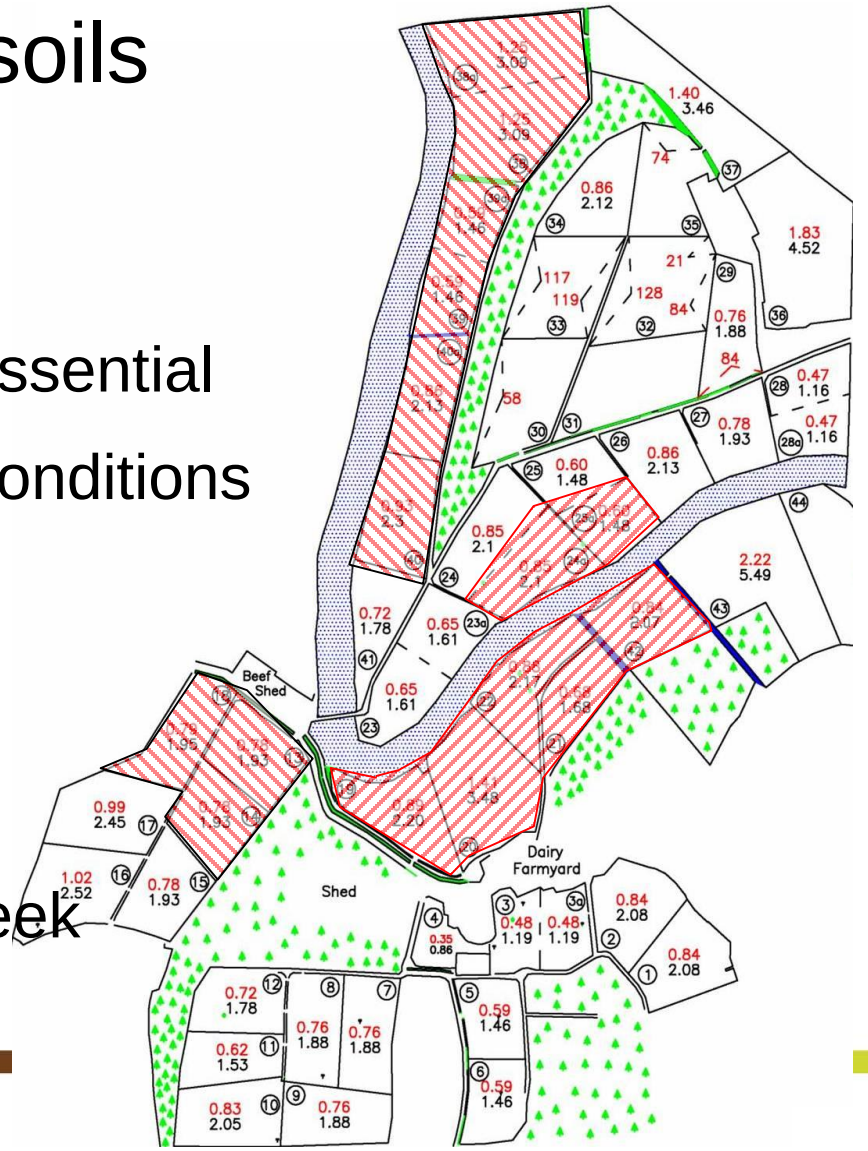
Adapting Spring Feed Budgets on Wetter Farms- Ballyhaise

1. Budgeting is more complex with wet soils

- Winter growth may be 0 kg DM/ha/day!
- Building high covers is too risky on wet areas
- Improved grazing infrastructure/ on-off grazing essential
- Identified on wedge and grazed > 8cm in good conditions

2. SRP must also be adapted

- Floodplains not included in SRP – ungrazable?
- Delay calving/turnout by 10 days
- Target area grazed of 30 & 60% delayed by 1 week



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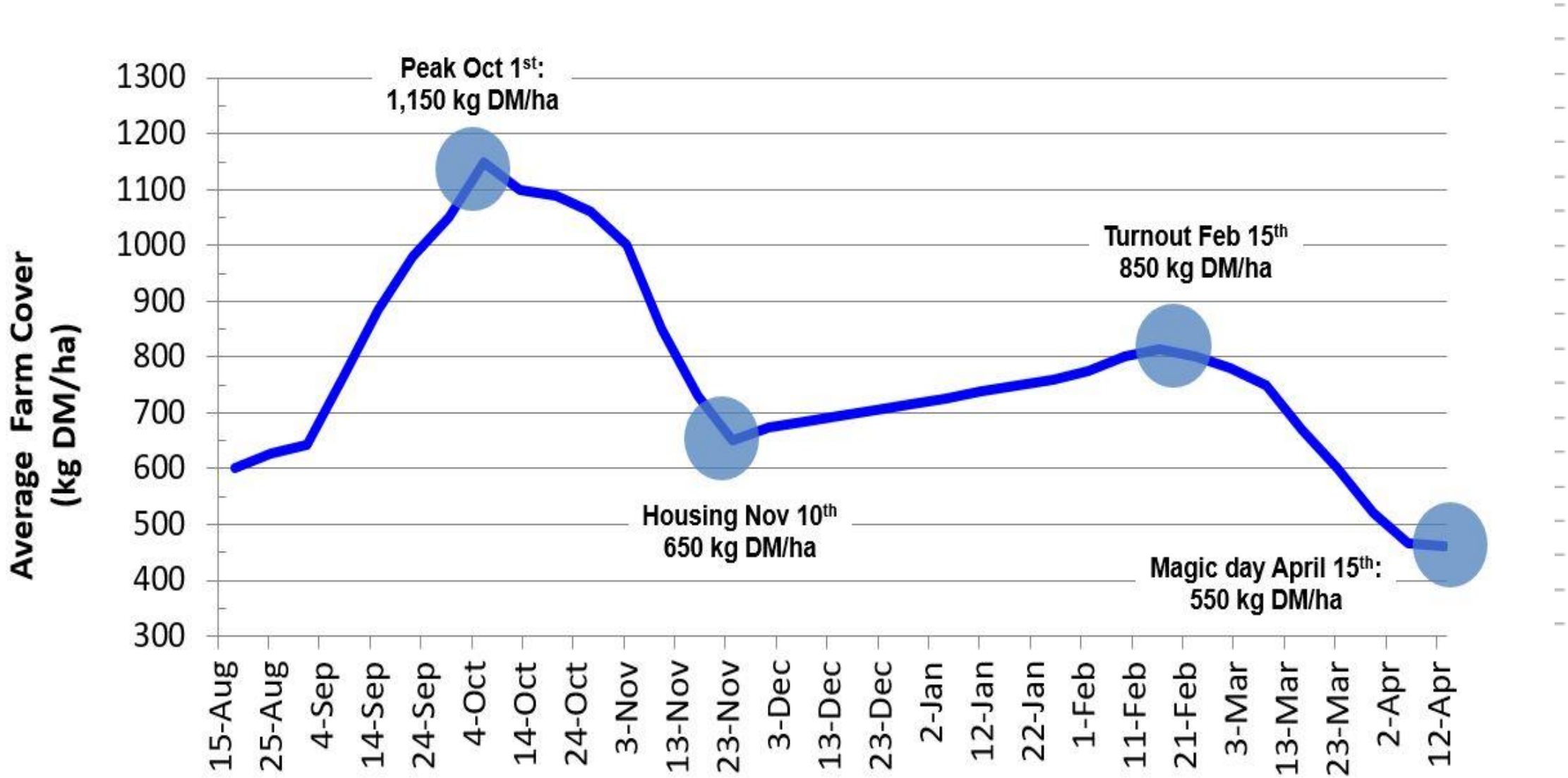

Using the Spring Rotation Planner

WEEK	TARGET HA GRAZED/DAY	TARGET HA GRAZED BY WEEK END	ACTUAL HA GRAZED BY WEEK END	TARGET %	ACTUAL %
01/02/2023 - 07/02/2023	0.38	2.65		6	
08/02/2023 - 14/02/2023	0.42	5.58	5.47	12	13
15/02/2023 - 21/02/2023	0.47	8.84	11.38	19	27
22/02/2023 - 28/02/2023	0.53	12.52	20.085	27	48
01/03/2023 - 07/03/2023	0.60	16.75	25.575	37	62
08/03/2023 - 14/03/2023	0.71	21.72	26.605	47	64
15/03/2023 - 21/03/2023	0.86	27.74	28.985	61	70
22/03/2023 - 28/03/2023	1.09	35.39	35.055	77	85
29/03/2023 - 04/04/2023	1.49	45.83	(LC 04/04) 37.82	100	91

Using a Spring Feed Budget

WEEK START	AREA (HA)	SPRING MILKERS	GRASS INTAKE	MEAL INTAKE	SILAGE INTAKE	TOTAL INTAKE	TARGET COVER (KG DM/HA)	Click to copy Predicted to Target / Predicted Cover	ACTUAL FARM COVER(KG DM/HA)	PRED. GROWTH (KG DM/DAY)	ACTUAL GROWTH (KG DM/DAY)	DEMAND(KG DM/HA)	STOCKING RATES(LU/HA
29/01/2024	41.15	15	8.3	3	2	13.3	1052	1052		6		3	0.36
05/02/2024	41.15	25	8.8	3	2	13.8	1073	1073		7		5	0.61
12/02/2024	41.15	40	8.1	3	3	14.1	1085	1085		8		8	0.97
19/02/2024	41.15	60	8.4	3	3	14.4	1085	1085		9		12	1.46
26/02/2024	41.15	80	8.8	3	3	14.8	1063	1063		11		17	1.94
04/03/2024	41.15	95	9.3	4	2	15.3	1020	1020		12		21	2.31
11/03/2024	41.15	100	10	4	2	16	954	954		12		24	2.43
18/03/2024	41.15	110	10.4	4	2	16.4	868	868		15		28	2.67
25/03/2024	41.15	115	11.9	3	2	16.9	778	778		24		33	2.79
01/04/2024	41.15	125	13.1	3	1	17.1	713	713		28		40	3.04
08/04/2024	41.15	130	14.4	3	0	17.4	631	631		32		45	3.16
15/04/2024	41.15	130	14.9	3	0	17.9	536	536		46		47	3.16

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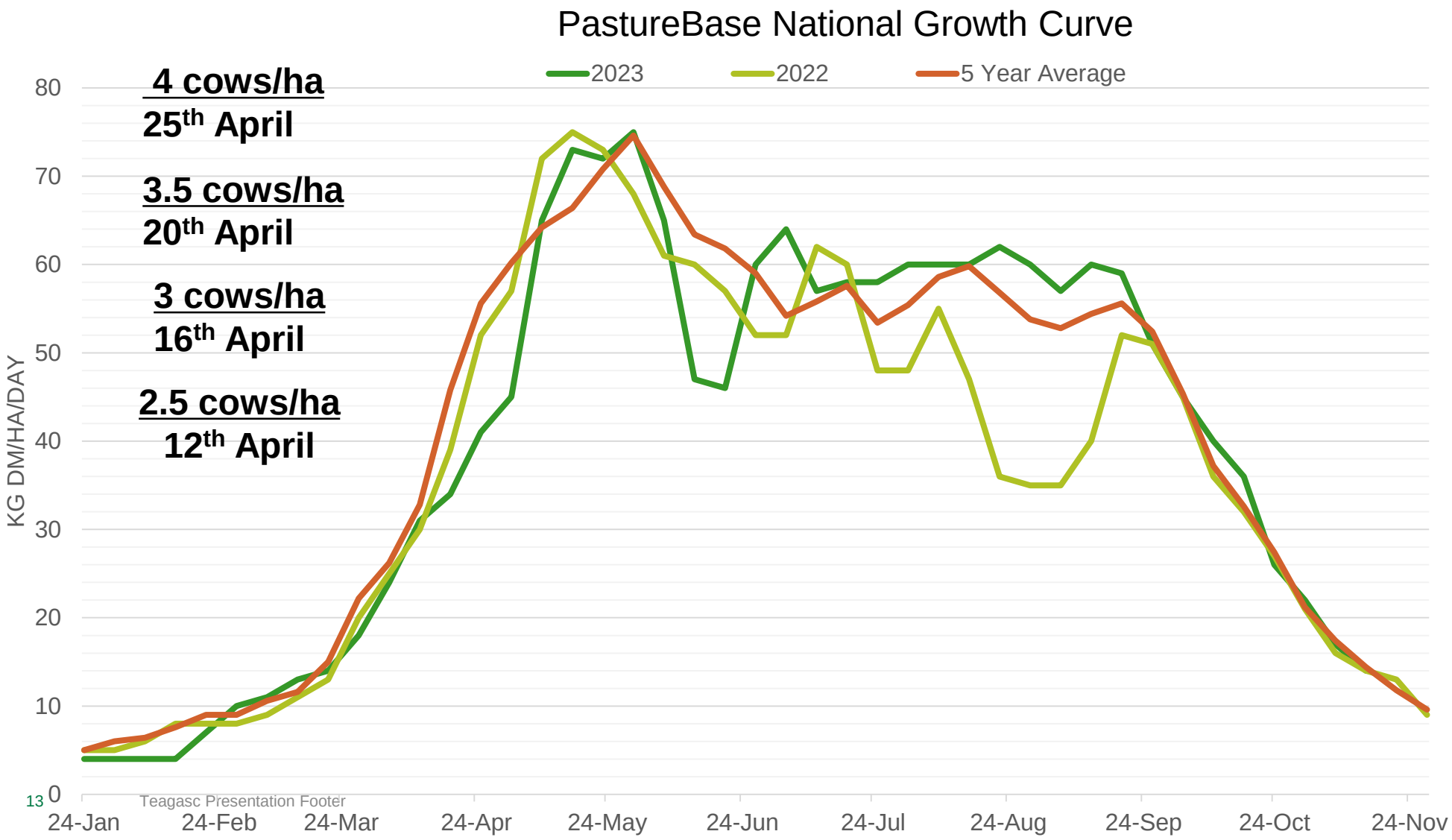
Budgeting out of drought!

WEEK START	AREA (HA)	SPRING MILKERS	GRASS INTAKE	MEAL INTAKE	SILAGE INTAKE	TOTAL INTAKE	TARGET COVER (KG DM/HA)	Click to copy Predicted to Target / Predicted Cover	ACTUAL FARM COVER(KG DM/HA)	PRED. GROWTH (KG DM/DAY)	ACTUAL GROWTH (KG DM/DAY)	DEMAND(KG DM/HA)	STOCKING RATES(LU/HA)	ACT. COV./ LU (KG DM/ LU)
01/09/2022	45.83	120	12	4	4	20			396	35	29	37	3.08	151
08/09/2022	45.83	120	6	5	7	18	380		766	40	101	22	3.08	292
15/09/2022	45.83	120	6	5	7	18	509		988	45	72	22	3.08	431
22/09/2022	45.83	120	10	4	4	18	672		917	50	35	32	3.08	400
29/09/2022	45.83	120	12	4	2	18	798		921	50	44	37	3.08	402
06/10/2022	45.83	120	15	3	0	18	887		909	40	46	45	3.08	382
13/10/2022	45.83	120	15	3	0	18	851		915	38	46	45	3.08	384
20/10/2022	45.83	120	15	3	0	18	800			36		45	3.08	
27/10/2022	45.83	120	15	3	0	18	736		858	34	13	45	3.08	361
03/11/2022	45.83	90	12	3	3	18	658			32		24	1.96	
10/11/2022	45.83	90	12	3	3	18	717		874	25	12	24	1.96	367
17/11/2022	45.83	90	12	3	3	18	727	884		20		24	1.96	451
24/11/2022	45.83	90	0	5	13	18	702	859		15		0	0	

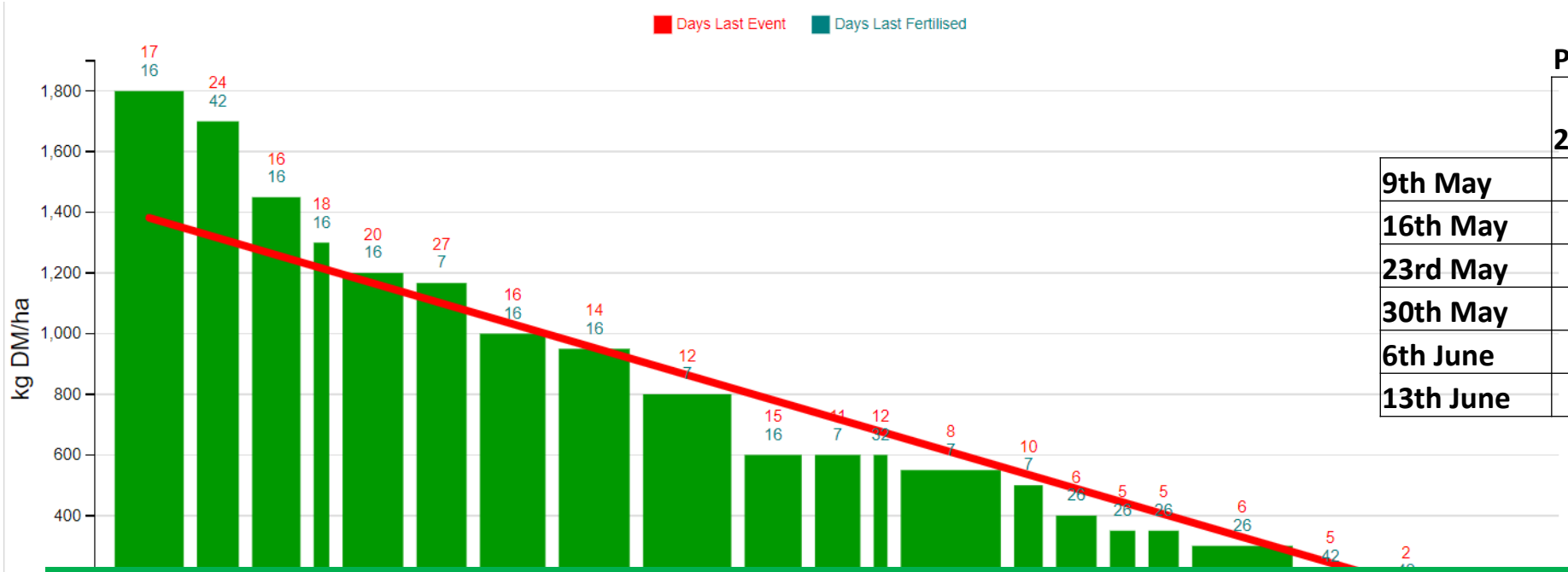
Magic day – a sensible approach

National stats	2012	2017	2022
Milking platform (LU/ha)	2.0	2.4	2.7
Magic day demand (kg/ha/d)	25	35	45
Magic day	March 25-30	April 5-10	April 10-20



- 24-36 hr grazing allocations from April
- Target grazing residual of 4cm is essential (1cm > 4cm is 250 kg DM/ha)

The Mid-season sweet spot: demand@65



PBI National Growth Curve

	2023	2022	5 Year Average
9th May	65	72	64.2
16th May	73	75	66.4
23rd May	72	73	70.8
30th May	75	68	74.6
6th June	65	61	68.8
13th June	47	60	63.4

Topping/pre-mowing are expensive & laborious - minimised

- At the correct SR, surplus paddocks can be removed as bale silage targeting poorer quality swards
- Topping/mowing depresses regrowth rates by 20%

Targeting a reduction in concentrate feed

Be pragmatic: reduce use when grazing conditions allow

Feeding rate (kg fwt./cow)	National Ave. 1,250	1,000	750
Jan - Mar	4 - 6	4	3
April - May	4	3	2
June - Aug	3	2.5	1
Sept – Dec	4	3	3

Every 250 kg drop in meal/cow @350/t = €88 /cow - €8,800 per 100 cows!

Reflecting on 2023 with PastureBase

Tuesday, 5th December | 7pm

Join the Grass10, Clover150 & PastureBase team on the night where they will:

- Review the national grass growth figures on Irish farms for 2023 from PastureBase
- Discuss key targets and lessons learned from the Clover150 programme
- Discuss getting the most out of your PastureBase Ireland reports to improve pasture performance

Dairy farmer Patrick O Neill from Co. Longford will join us on the night to discuss his 2023 pasture performance and how he will use PastureBase better in 2024.

Joseph Dunphy

Caitlin Looney

Ciaran Hearn

For more info visit
www.teagasc.ie/grass10

Workshop summary: Improved grazing management

Key components of efficient grazing systems – Top 5%

- Improved grazing infrastructure – esp. on heavier soils
- Appropriate overall farm & MP stocking rate – 60% grazed grass diet
- Highly productive clover-based swards with lower chemical N levels
- Improved soil fertility

- Increased frequency of pasture measurement (30+ AFCs per yr)
- Active SRP and Feed budget to simplify decisions during spring

- Eliminate silage from end of rotation 1 – later magic day, demand@65
- 24-36 hr grazing allocations from April
- Reduce concentrate supplementation
- Remove surpluses > Topping/pre-mowing