



**DAIRYGOLD/TEAGASC
JOINT PROGRAMME & SIGNPOST PROGRAM
2021-2025**

Farm Walk

On the Farm of

**Mark Lonergan, Rathmacarthy, Rosegreen, Cashel, Co
Tipperary**

Wednesday 12th October 2022

(By kind permission)

Today's Agenda

1. Current Farm Performance & 2021 profit monitor figures
2. Managing Autumn Grass and Closing Cover Targets
3. Options if you are short winter fodder
4. Red Clover silage swards
5. Hedgerow Management

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FARM DETAILS

LAND		CURRENT STOCK DETAILS	
Land owned (ha)	52	Dairy cow	116
Land leased (ha)	7.30	0-1 Replacements	30
Milking Platform (ha)	56.3	1-2 Replacements	28
SR on milking platform (ha)	2.4		
SR on whole farm (LU/ha)	2.4		

HERD PERFORMANCE

Milk Production	12/10/2022	2021
Milk yield (litres/cow)	20	6,585 sold
Milk protein %	4.22	3.79
Milk fat %	4.80	4.45
Milk solids (kg/cow)	1.86	559
SCC (,000 cells/ml)	200	200
Grass (kg DM/cow)	14	
Meal (kg DM/cow)	6kg 13% protein	1,131kg
Silage (kg DM/cow)	0	

Calving and Fertility Performance

	Year	Cows	Heifers
Calving Start Date	2022	1 Feb	3 Feb
Calving spread	2022	15wk +3d	12wk +3d
Calving Interval (Days)	2022	378	
Spring 6 wk. calving rate	2022	83%	
Empty rate %	2022	13%	10 %
Replacement rate	2022	18 %	
Breeding season	2022	10.5 wks	8wks

Economic Breeding Index (EBI) Herd Summary - Oct 2022

Report Date: 10/10/2022 (Oct 2022 Evaluation)

Herd Owner: MARK LONERGAN

Herd No: 123456

**Snapshot of your herd
based on the 10-OCT-22**

1. EBI Herd Summary

Average EBI for all dairy cows with; (i) a known sire (or milk recorded progeny with a known sire) and (ii) are currently on your farm.

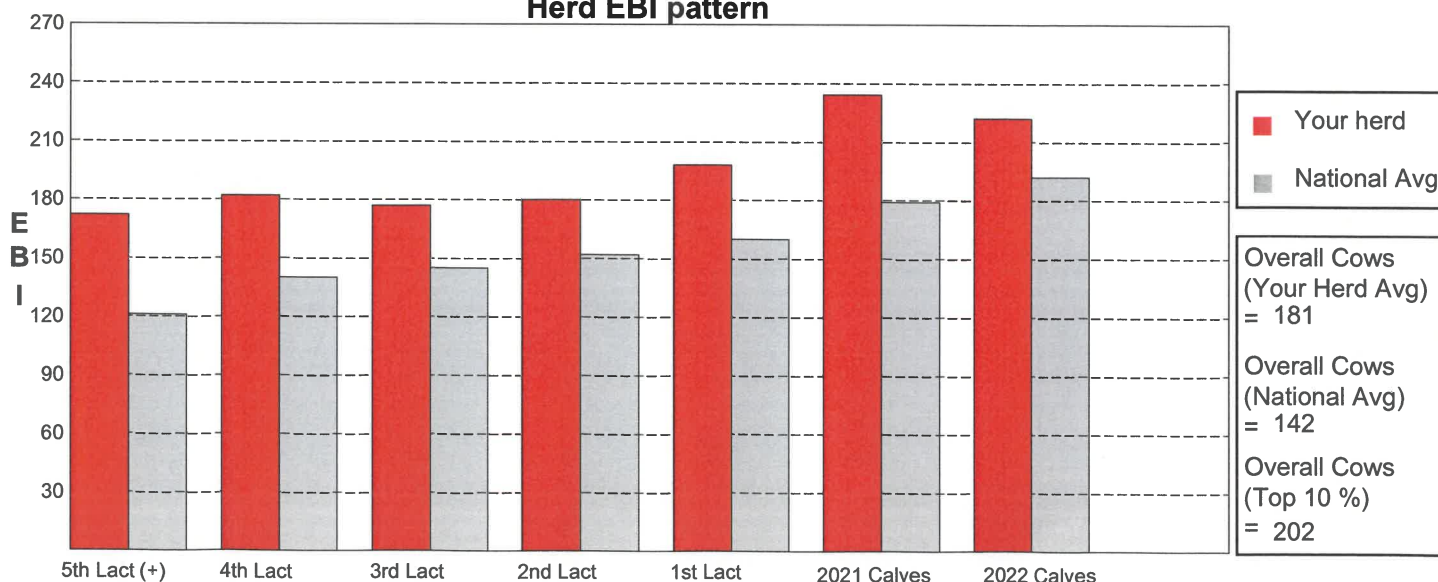
* Number of animals that are missing an EBI result

Animal Group	Num of Cows	Milk Kg Fat % Prot %	Surv% CI Days	Milk % Cont	Fertility % Cont	Calv % Cont	Beef % Cont	Maint % Cont	Mgmt % Cont	Health % Cont	EBI €
Cows with EBI	110	46		€ 60	€ 79	€ 34	€ -14	€ 14	€ 3	€ 4	
Missing EBI*	1	10.0 0.14	2.2	29%	38%	16.4%	-6.6%	6.7%	1.3%	1.9%	€ 181
Total Cows	111	7.5 0.1	-4.2								
1st Lactation	20	2		€ 69	€ 86	€ 38	€ -15	€ 14	€ 3	€ 4	
		10.9 0.18	2.2	30.1%	37.6%	16.7%	-6.7%	6%	1.3%	1.7%	€ 198
		7.9 0.13	-4.6								
2nd Lactation	17	-13		€ 62	€ 81	€ 31	€ -15	€ 15	€ 2	€ 4	
		9.6 0.17	2.2	29.6%	38.3%	14.6%	-7.3%	7.3%	1.1%	1.8%	€ 180
		7.0 0.12	-4.2								
3rd Lactation	19	68		€ 61	€ 75	€ 34	€ -13	€ 15	€ 1	€ 4	
		10.2 0.13	2.3	30.3%	36.8%	16.8%	-6.4%	7.2%	0.6%	1.9%	€ 177
		7.8 0.09	-3.7								
4th Lactation	20	33		€ 60	€ 79	€ 37	€ -15	€ 14	€ 3	€ 4	
		9.9 0.14	2.2	28.2%	37.3%	17.4%	-6.9%	6.7%	1.5%	2%	€ 182
		7.2 0.1	-4.1								
5th Lactation (+)	34	97		€ 55	€ 77	€ 32	€ -12	€ 13	€ 3	€ 4	
		9.5 0.09	2.0	27.8%	39.2%	16.4%	-6.2%	6.7%	1.7%	2%	€ 172
		7.4 0.07	-4.2								

2. Dairy Youngstock

2022 Calves	30	38		€ 76	€ 98	€ 40	€ -13	€ 12	€ 3	€ 6	
Missing EBI*	0	11.9 0.18	2.7	30.7%	39.4%	16.2%	-5.2%	4.8%	1.1%	2.5%	€ 222
Total Calves	30	9.3 0.14	-5.1								
2021 Calves	28	34		€ 72	€ 117	€ 38	€ -15	€ 15	€ 1	€ 7	
Missing EBI*	0	10.8 0.17	3.2	27%	44.1%	14.3%	-5.8%	5.6%	0.5%	2.8%	€ 234
Total Calves	28	8.9 0.13	-6.1								

Herd EBI pattern



Mark Loneragan Costs per litre - 3 year average

Year	Gross Output	Feed	Fert	Vet	AI	Contract	Other V. Costs	Total V. Costs	Mach	Car/ESB/phone	Deprec	Hired Labour	Leases	Other F. Costs	Total F. Costs	Total Costs*	Net Profit
	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
2021^	46.17	6.00	2.18	2.14	0.62	2.71	2.01	15.66	1.19	0.89	2.21	1.55	0.48	3.41	9.73	25.38	20.78
2020	37.12	5.07	1.94	1.16	0.52	2.12	1.77	12.59	0.93	1.11	1.81	0.91	0	2.59	7.34	19.93	17.2
2019	36.40	6.89	2.48	0.96	0.54	2.06	1.46	14.39	1.61	0.87	2.91	0.27	0	1.72	8.39	22.78	13.62
AVG	39.90	5.99	2.20	1.42	0.56	2.30	1.75	14.21	1.24	0.96	2.31	0.91	0.16	2.57	8.49	22.70	17.20

*excludes own labour

^Includes replacement costs

Mark Loneragan Farm Physical Performance - 3 year average

Year	Stocking rate	Stocking rate	Cow no	litre /cow	Prot% Fat %	KG MS /cow	kg MS /MP ha	Herd EBI	6 week calving	replace ment %	SCC	Grass Grown	Chem N/ha
	W. Farm	M. P		produced								DM/ha	WF
2021	2.5	2.3	113	6585	3.79	4.45	559	1108	170	89	18	200	225
2020	2.46	2.4	106	6861	3.84	4.40	560	1399	166	90	17	134	250
2019	2.62	2.5	111	6686	3.80	4.50	544	1430	158	97	25	135	
AVG	2.53	2.40	110.00	6711	3.81	4.45	554	1312	165	92	20	156	237.5

Farm: Mark Lonergan -
Rathmacarthy

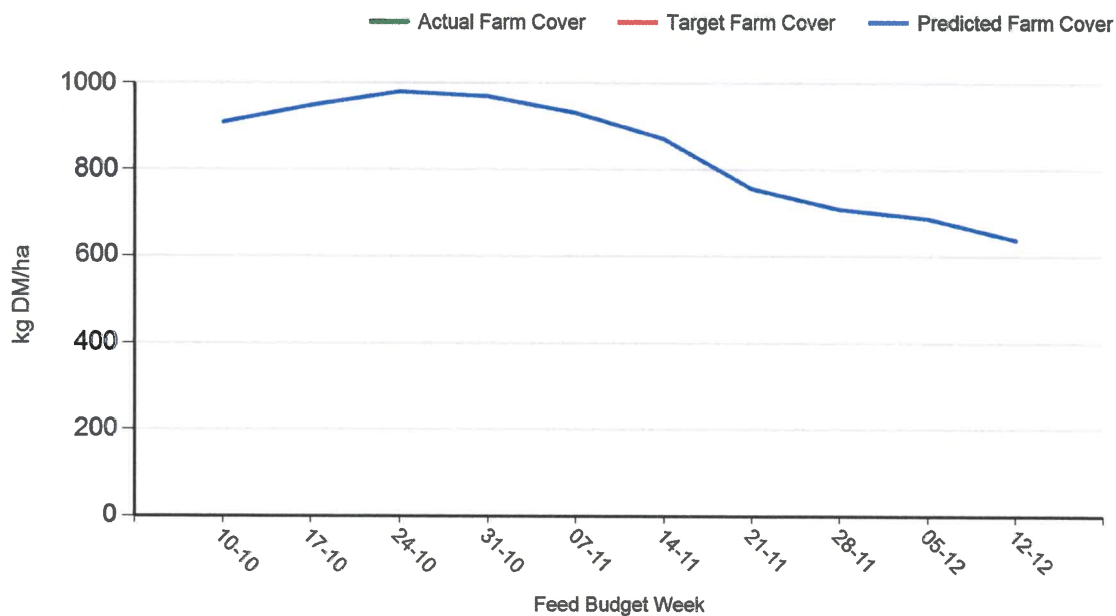
StockType: Spring Milkiers

Budget Details

Week Start	Area (ha)	No. of stock	Grass Intake	Meal Intake	Silage Intake	Total Intake	Target Farm Cover (kg DM/ha)	Predicted Growth (kg DM/DAY)	Actual Farm Cover(kg DM/ha)	Predicted Farm Cover(kg DM/ha)	Actual Growth (kg DM/DAY)	Demand (kg DM/ha)	Stocking Rates (LU/ha)	Actual Cover/L U(kg DM/LU)
10/10/2022	57.95	111	14	4	0	18		40		909	CURRENT	34	2.31	394
17/10/2022	57.95	111	14	4	0	18		39		948		34	2.31	410
24/10/2022	57.95	111	14	4	0	18		33		980		34	2.31	424
31/10/2022	57.95	111	14	4	0	18		29		969		34	2.31	420
07/11/2022	57.95	111	14	4	0	18		26		931		34	2.31	403
14/11/2022	57.95	111	14	4	0	18		18		872		34	2.31	377
21/11/2022	57.95	111	7	4	9	20		11		757		18	2.25	336
28/11/2022	57.95	100	7	4	9	20		9		709	TARGET	12	1.73	410
05/12/2022	57.95	100	7	4	9	20		5		688	CLOSING COVER	12	1.73	398
12/12/2022	57.95	100	7	4	9	20		4		638		12	1.73	369

fully housed

Comparison Chart



Notes:

Each additional day at pasture is worth
over €2/animal per day in Autumn

Each additional day at pasture is worth
over €3/animal per day in spring



Closing This Autumn



Close the farm up to have grass available next spring!!!

➤ **Cover targets are better than date targets**

• Rotation length Late September: Minimum 30 days

• Late September - highest grass supply on farm

• Start closing October 5-15th (Dry Farms)

• 1 Week earlier for Heavy Farms

• Close in rotation – every day delay in closing reduces
spring grass supply

• 60-65% closed November 1st

• Close “Rainy Day Spring Paddocks” in late October

• Close Clover paddocks/Reseeds late October



➤ **Dates are a reasonable guide**



➤ **Grazed grass is a more valuable feed in
spring than autumn grass**

➤ **Feb 1st 2022 Opening AFC: 900+ kgDM/ha**

✓ The Paddock – Square, Dry, Near farmyard

✓ The Infrastructure - Good access & road network

✓ The Sward – Medium Cover Next Spring

▪ 800-1000 kg DM/ha so closed late October

✓ The Farmer - Suitable grazing techniques & flexible

Fodder Budget

Exported on 10/10/2022

Budget Name: Winter Feed Budget 2022

Stock	No Of Days	Stock No.	Stock Wt.	DMI %	Kg / Day	Meal Fed kg / day	Forage intake kg DM/day	Total Tonnes of Forage DM Required	Total Tonnes of Meal Required
Dairy Cows (Milking)	40	100	580	3.2	18.6	4	15.9	63.60	16
Dairy Cow (0-40 DIM)	40	100	580	2.7	15.7	4	13	52.00	16
Dairy Cows (Dry)	40	100	580	1.8	10.4	0	10.4	41.60	0
Dry suckler Cows			700	1.25	8.8	0	8.8	0.00	0
Calved suckler cow			650	1.7	11.1	0	11.1	0.00	0
In-calf Heifers	80	25	500	1.9	9.5	0	9.5	19.00	0
Weanlings / Yearlings	120	30	300	1.9	5.7	2	4.3	15.48	7.2
Stores 1-2			475	1.7	8.1	0	8.1	0.00	0
Finishing Steers			600	2	12	0	12	0.00	0
Finishing Heifers			490	1.9	9.3	0	9.3	0.00	0
Bulls			600	2.2	13.2	0	13.2	0.00	0
Ewes			80	2	1.6	0	1.6	0.00	0
Lambs			45	2	0.9	0	0.9	0.00	0
Total								191.68	39.2

Home Stored Forage	Length (m)	Width (m)	Height (m)	Clamp Volume (cubic metres)	Fresh Weight Available (tonnes)	Est. Dry Matter % of Forage	Total Tonnes of Forage DM Available on the Farm
Grass Silage (Pitted)	13.6	10.6	1.8	259.5	159.6	30	47.88
Grass Silage (Pitted) - Second				0	0	26	0
Maize Silage (Pitted)				0	0	32	0
Wholecrop Silages (Pitted)				0	0	45	0

	No. of Bales	Weight of each bale (kg)					
Grass Silage (4X4 Round Bales)	400	800			320	30	96
Hay (4 x4 Round Bales)		300			0	85	0
Straw (4 x 4 Round bales)		150			0	85	0
Grass Silage (4X4 Round Bales)		800			0	30	0

Grazing	Hectares	AVG Cover (KG/HA)					Total Tonnes of Forage DM Available on the Farm
Autumn Grass							0
Spring Grass							0
Other Grazing							0
Kale/Rape							0
Total					479.6		143.88

Summary

Total Required t/DM	Total in stock t/DM	Surplus/deficit t/DM	% required in stock	Days Short
191.68	143.88	-47.8	75.1	-16

Disclaimer This application should be used in conjunction with good husbandry practice and should be used only as a guide to grassland management. The use of this application does not effect any statutory requirements. Teagasc shall not be held responsible for any losses incurred by the end user as a result of the use of this application.

Value of FeedStuffs - Relative to Barley and Soy

	UFL (per kg DM)	DIE (per kg DM)	Value (per t DM)	DM (%)	Value (per t as fed)
Barley	1.16	103	439	86.6	380
Soya	1.18	269	648	86.4	560
Wheat	1.16	106	442	86.6	383
Oats	1.03	84	380	87.4	332
Maize	1.22	120	476	86	409
Unmolassed Beet Pulp	1.14	110	442	88.1	389
Molassed Beet Pulp	1.14	98	427	88.1	376
Molasses, Beet	1.03	71	364	76.1	277
Molasses, Cane	1	68	353	73.5	259
Citrus Pulp	1.14	91	419	87.5	367
Soya Hulls	1.05	107	414	87.9	364
Maize Gluten Feed	1.04	125	434	86.5	375
Maize Distillers Grains	1.16	134	477	89	425
Rapeseed Meal	1.05	151	468	86.4	404

Silage (All Silage are 20% DM)

	UFL (per kg DM)	DIE (per kg DM)	Value (per t DM)	DM (%)	Value (per t as fed)
~ Very Good Quality (77 DMD)	0.87	85	339	0.81	67
~ Good Quality (72 DMD)	0.81	73	308	20	62
~ Poor Quality (68 DMD)	0.76	66	286	20.2	58
Hay ~ Good Quality	0.69	75	278	85	236
Hay ~ Poor Quality	0.58	64	235	85	200
Barley Straw	0.44	46	175	88	154
Wheaten Straw	0.42	44	167	88	147
Oaten Straw	0.5	48	194	88	171
Brewer's Grain (20.5% DM)	0.92	189	480	20.5	98
Pressed Pulp	1.11	100	422	22	93
Fodder Beet	1.12	86	410	19	78

	UFL (per kg DM)	DIE (per kg DM)	Value (per t DM)	DM (%)	Value (per t as fed)
Maize Silage ~ 5 - 15% Starch	0.75	67	284	27.8	79
Maize Silage ~ 25 - 30% Starch	0.8	68	299	32.1	96
Whole crop cereal silage	0.8	68	299	40	120
Grass ~ 1st Grazing	0.99	99	388	16.4	64
Grass ~ 2nd, 3rd, 4th Rotation	1.01	96	390	17.2	67
Grass ~ Late Season	0.93	98	371	18.6	69

Annual Tonnage Report ;

Farm: Mark Lonergan - Rathmacarthy

From: 01/01/2022

To: 07/10/2022

Farm Summary

Red Clover Silage Fields*



Paddock Code	Paddock Name	Cultivars	Last Reseed	Area	No. of Grazings	No. of Silage Cuts	Grazing (kg DM/ha)	Silage (kg DM/ha)	Total (kg DM/ha)	Total N kg	Total P kg	Total K kg
34	Raceway	AberClyde (T) 24.71, Amos Red Clover 8.65	21/04/2021	4.00	2	2	5936	7010	12946	64 (31)	38 (18)	325 (199)
35	Mikes	AberGain(T) 24.71, Amos Red Clover 8.65	21/04/2021	0.90	1	3	2401	10933	13334	64 (31)	38 (18)	325 (199)
36	Anns	AberGain(T) 24.71, Amos Red Clover 8.65	21/04/2021	2.40	2	2	5402	5650	11052	64 (31)	38 (18)	325 (199)
Averages										10715 1987 (1965)	139 (127)	390 (390)

Red clover

Red clover is a relatively drought tolerant, deep tap rooting, N fixing legume that is primarily used for silage production but can also be grazed by cattle or sheep in the autumn. It offers high yields of high quality forage and can fix 150-200 kg N/ha per year. Red clover has a different growth habit to white clover and requires different management to optimise its performance. The crown of the red clover plant acts as the growing point and is located above ground level. The stem grows upwards from the crown. The crown of the plant must be protected from overgrazing or cutting too low in order to maintain red clover in the sward.



Latest Research

Research at Teagasc Grange has shown promising results from grass-red clover silage mixtures in plot experiments over a six-year period. Some of the main results from this work are:

- Under a silage cutting regime a grass-red clover sward receiving no N fertiliser produced similar total annual DM yield to a grass-only sward receiving 412 kg N/ha per year (15,785 vs. 15,697 kg DM/ha).
- Mean DM yields of the grass-red clover sward were consistent over a 6-year period.
- Early harvest (26th May) compared to late harvest (11th June) increased sward red clover content (62% vs. 46%) and increased total annual DM yield (15,039 vs. 14,773 kg DM/ha).
- Red clover content and herbage production were greater on swards when 0 kg N/ha were applied (61% and 15,039 kg DM/ha, respectively) compared to when 50 kg N/ha were applied (48% and 14,773 kg DM/ha, respectively).

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Red clover sward management

- In the establishment year, red clover should be allowed to flower before harvesting the first cut of silage to help root development and the growth of the bacteria that fix N.
- In subsequent years, silage harvesting should occur at intervals of six to eight weeks, any time between bud development and early flowering.
- Three to four silage cuts can be taken each year. Approximately 80-90% of total annual yield will be obtained from silage cuts completed by late July-early August. The final cut should be taken no later than mid-October.
- In the autumn, herbage should be cut or grazed (ideally in October) without poaching, soil compaction and physical damage to the plant crowns.
- Cut silage crops to a residual height of 7-8 cm above ground level.
- Optimum post-grazing sward height is 6 cm.
- Optimum over-wintering sward height is 4-6 cm above ground level.
- Red clover can contain up to 1% oestrogenic compounds. Oestrogen levels can lower ewe fertility. Therefore, do not allow breeding ewes to graze red clover swards or eat red clover silage for a period of 6 weeks before and after mating to avoid any adverse effect of red clover oestrogens on lambing percentage. Store lambs can be offered red clover swards and silage at any time.
- Similar to white clover, there is a risk of bloat when grazing red clover. Bloat management practices as outlined previously are effective for red clover.
- Red clover typically has a relatively short lifespan at farm level – two to four years. The correct management, as outlined above, is critical to ensure the crown of the red clover plant is protected and that red clover is maintained in the sward.

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Where are you on the 12 Steps to reduce Gaseous Emissions on YOUR FARM?



Action needed

12. Incorporate clover



11. Finish cattle earlier



10. Reduce age at first calving

9. Increase milk solids/cow



8. Improve dairy herd quality



7. Improve animal health

6. Better grassland management



5. Reduce chemical
N by 10kg/ha



4. Use 100% LESS



3. Build or maintain
soil fertility



2. Apply
lime

1. Use protected urea



Incorporating 5 kg/ha (2 kg/ac) will
replace up to 100 kg/ha (80 units/ac)
of chemical N/year

Use Dairy Beef Index (DBI)
to produce earlier finishing cattle

Calf heifers at 22 to 26 months
and aim for 20% replacement rate

Milk record, cull poor cows and aim
for 305 day lactation

Use high EBI bulls and increase herd EBI by >€10/year.
Use sexed semen to accelerate genetic gain

Create a herd health plan

Weekly farm walk, measure grass
and extend grazing season

Apply lime, incorporate clover
and make best use of slurry / FYM

Apply slurry in spring / early summer using
Low Emission Slurry Spreading Technology (LESS)

Continue to use P & K fertilisers such as 18:6:12

Identify fields low in pH using soil analysis

Apply protected urea instead of CAN/straight urea