



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

Farm Walk

On the Farm of

**Tim & Mary Leader, Glenleigh Upper, Kilcorney, Rathcoole,
Co Cork**

Thursday 13th 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)	79.64 (2ha forestry)	Dairy cow	154
Land leased (ha)	6	0-1 Replacements	22
Milking Platform (ha)	51.87	1-2 Replacements	29
SR on milking platform (ha)	3.0	Stock bull	2
SR on whole farm (LU/ha)	2.2	0-1 Cattle	23

HERD PERFORMANCE

Milk Production	13/10/2022	2021
Milk yield (litres/cow)	17.2	6,396 sold
Milk protein %	4.13	3.64
Milk fat %	4.89	4.20
Milk solids (kg/cow)	1.63	516
SCC (,000 cells/ml)	208	246
Grass (kg DM/cow)	13	
Meal (kg DM/cow)	5kg 13% protein	1,120kg
Silage (kg DM/cow)	0	

Calving and Fertility Performance

	Year	Cows	Heifers
Calving Start Date	2022	1 Feb	1 Feb
Calving spread	2022	14wk +5d	13wk +3d
Calving Interval (Days)	2022	369	
Spring 6 wk. calving rate	2022	80%	
Empty rate %	2022	13%	4%
Replacement rate	2022	22%	
Breeding season	2022	11.5wks	8 wks

Economic Breeding Index (EBI) Herd Summary - Oct 2022

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

Herd Owner: TIMOTHY LEADER

Herd No: 27000107

**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.

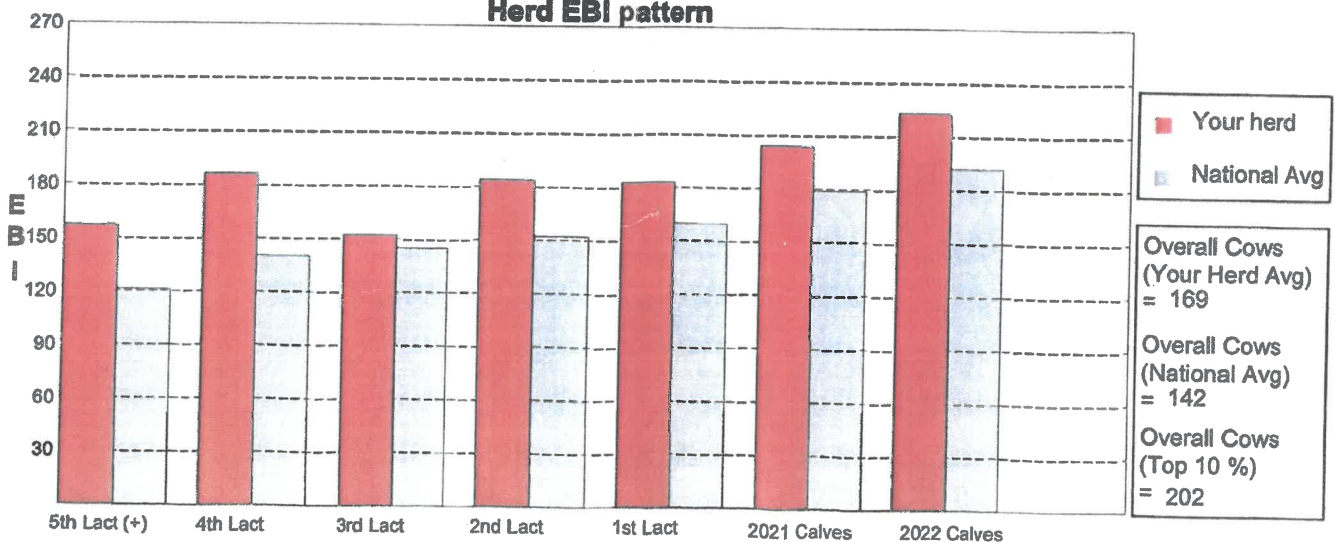
* Number of animals that are missing an EBI result

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	154	58									
Missing EBI*	0	7.6	0.09	1.9	€ 50	€ 78	€ 35	€ -11	€ 13	€ 1	€ 3
Total Cows	154	6.6	0.08	-4.4	26%	41%	18.6%	-5.7%	6.7%	0.5%	1.5%
€ 169											
1st Lactation	34	80									
		9.6	0.11	2.0	€ 62	€ 76	€ 42	€ -12	€ 12	€ 2	€ 2
		8.4	0.09	-4.1	29.9%	36.6%	20.2%	-5.9%	5.6%	0.8%	1.1%
€ 183											
2nd Lactation	22	66									
		8.2	0.09	2.2	€ 57	€ 86	€ 36	€ -11	€ 11	€ 2	€ 4
		7.8	0.09	-4.7	27.7%	41.6%	17.5%	-5.2%	5.4%	0.7%	1.9%
€ 184											
3rd Lactation	26	73									
		7.2	0.07	1.6	€ 45	€ 68	€ 36	€ -11	€ 12	€ 1	€ 2
		6.1	0.06	-3.9	25.6%	39.1%	20.6%	-6.4%	6.9%	0.3%	1.1%
€ 152											
4th Lactation	17	82									
		10.0	0.11	2.1	€ 63	€ 81	€ 35	€ -8	€ 11	€ 0	€ 4
		8.4	0.09	-4.4	31%	40.4%	17.1%	-3.9%	5.4%	0.1%	1.9%
€ 186											
5th Lactation (+)	55	27									
		5.7	0.08	1.7	€ 37	€ 81	€ 31	€ -11	€ 15	€ 1	€ 3
		4.8	0.06	-4.7	20.9%	44.9%	17.4%	-6.2%	8.4%	0.4%	1.8%
€ 157											

2. Dairy Youngstock

2022 Calves	22	130									
Missing EBI*	0	13.0	0.14	2.3	€ 79	€ 92	€ 43	€ -11	€ 12	€ 3	€ 4
Total Calves	22	10.9	0.11	-5.1	32.5%	37.7%	17.6%	-4.4%	4.7%	1.3%	1.8%
€ 223											
2021 Calves	29	39									
Missing EBI*	0	10.7	0.16	2.4	€ 68	€ 90	€ 42	€ -10	€ 9	€ 3	€ 1
Total Calves	29	8.4	0.13	-4.9	30.5%	40.4%	18.8%	-4.3%	4.1%	1.2%	0.6%
€ 204											

Herd EBI pattern



Tim & Mary Leader 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 [^]	44.45	6.69	1.96	1.42	0.51	2.6	3.31	16.49	2.70	1.00	0.59	3.38	0.25	1.64	9.56	26.04	18.41
2020	35.81	4.56	2.05	1.09	0.51	1.75	3.06	13.02	1.05	1.02	1.3	3.65	0.22	1.98	9.22	22.24	13.57
2019	35.25	4.87	2.16	0.86	0.45	1.95	2.18	12.47	0.87	1.11	1.19	3.21	0.21	2.43	9.02	21.5	13.75
AVG	38.50	5.37	2.06	1.12	0.49	2.10	2.85	13.99	1.54	1.04	1.03	3.41	0.23	2.02	9.27	23.26	15.24

*excludes own labour

[^]Includes replacement costs

Tim & Mary Leader Farm Physical Performance - 3 year average

Year	Stocking rate	Stocking rate M. P	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											DM/ha	WF
2021	2.20	2.7	141	6396	3.64	4.20	516	157	82	17	246	11.8	228
2020	2.27	2.76	138	6235	3.68	4.20	501	149	83	22	215	12.6	250
2019	2.30	2.54	127	6413	3.66	4.27	524	142	80	17	241	10.8	
AVG	2.26	2.67	135	6348	3.66	4.22	514	149	82	19	234	12	239.0

Feed Budget

Exported on 07/10/2022

Farm: Tim Mary Leader

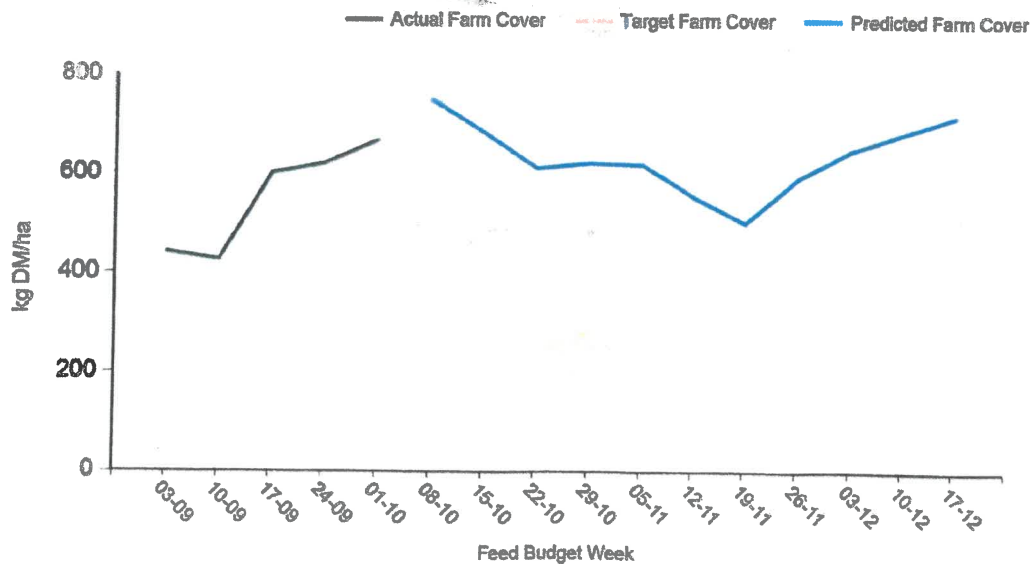
StockType: Spring Milkers

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/LU (kg DM/LU)
03/09/2022	50.957	154	14	5	0	19		45	442		31	42	3.02	146
10/09/2022	50.957	154	14	5	0	19		47	427		34	42	3.02	141
17/09/2022	50.957	164	14	5	0	19		54	602		81	42	3.02	199
24/09/2022	50.957	154	14	5	0	19		47	621		49	42	3.02	206
01/10/2022	50.957	154	14	5	0	19		54	688		49	42	3.02	221
08/10/2022	50.957	154	15	5	0	20		36		750		45	3.02	248
15/10/2022	50.957	133	15	5	0	20		29		685		39	2.61	262
22/10/2022	50.957	133	9	5	6	20		25		613		23	2.61	235
29/10/2022	50.957	133	9	5	6	20		23		624		23	2.61	239
05/11/2022	50.957	133	10	4	6	20		17		621		26	2.61	238
12/11/2022	50.957	100	10	4	6	20		12		557		20	1.96	284
19/11/2022	50.957	100	0	4	14	18		13		504		0	0	
26/11/2022	50.957	50	0	4	14	18		8		595		0	0	
03/12/2022	50.957	50	0	4	14	18		5		651		0	0	
10/12/2022	50.957	50	0	4	14	18		5		686		0	0	
17/12/2022	50.957	0	0	0	0	0		3		721		0	0	

* cows 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**



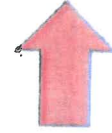
✓ **The Paddock – Square, Dry, Near farmyard**

✓ **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 07/10/2022

Budget Name: Fodder Budget 2022

Stock	No. of Days	Stock No.	Stock Wt.	BMI %	No. / Day	Meal Fed kg / day	Forage intake kg / day	Total Tonnes of Forage DM Required	Total Tonnes of Meal Required
Dairy Cows (Milking)	50	131	600	3.2	19.2	4	16.5	108.08	26.2
Dairy Cow (0-40 DIM)	50	131	600	2.7	16.2	5	12.8	83.84	32.75
Dairy Cows (Dry)	50	131	650	1.8	11.7	0	11.7	76.64	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	150	27	500	1.9	9.5	0	9.5	38.48	0
Weanlings / Yearlings	150	44	310	1.9	5.9	2	4.5	29.70	13.2
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	150	2	600	2.2	13.2	0	13.2	3.96	0
Ewes			80	2	1.6	0	1.6	0.00	0
Lambs			45	2	0.9	0	0.9	0.00	0
Total								340.70	72.15

Forage Source	Length (m)	Width (m)	Height (m)	Dry Matter (kg/ha)	Fresh Weight (kg/ha)	Est. Dry Matter % of Forage	Total Tonnes of Forage DM Available on the Farm
Grass Silage (Pitted)	22	16	4	1406	936.3	25	234.08
Grass Silage (Pitted) - Second	17	7.5	1.8	229.5	152.6	25	38.15
Maize Silage (Pitted)				0	0	32	0
Wholecrop Silages (Pitted)				0	0	45	0
3	25	4.8	2.4	288	191.5	25	47.88

	No. of Bales	Weight of each bale (kg)					
Grass Silage (4X4 Round Bales)	50	800			40	30	12
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	Months	Avg Cover (kg/ha)					Total Tonnes of Forage DM Available on the Farm
Autumn Grass	22	1500					33
Spring Grass							0
Other Grazing							0
Kale/Rape							0
Total					1320.4		365.11

Summary

Total Required t/DM	Total in stock t/DM	Surplus/deficit t/DM	% required in stock	Days Short
340.7	365.11	24.4	107.2	0

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	1.16	269	645	86.4	560
Wheat	1.16	106	442	85.6	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 DM)	0.87	85	359	0.81	67
~ Good Quality (72 DM)	0.81	73	308	20	62
~ Poor Quality (68 DM)	0.76	66	286	20.2	53
Hay ~ Good Quality	0.69	75	275	85	236
Hay ~ Poor Quality	0.58	64	255	85	200
Barley Straw	0.44	46	175	88	154
Wheaten Straw	0.42	44	167	88	147
Oaten Straw	0.5	48	196	88	171
Brewer's Grain (20.5% DM)	0.92	189	480	20.5	90
Pressed Pulp	1.11	100	422	22	93
Padder 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	0.6	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

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 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?



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



Action needed

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

