Review of the

Teagasc Glanbia Joint Development Programme

2011 – 2014

Teagasc
Agriculture and Food Development Authority

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Objectives of the Programme

- To prepare dairy farmers for the removal of EU milk quota in 2015
- Target areas to improve:
  - ***Grass*** - increase grass utilised by 1 tonne dry matter per hectare;
  - ***Breeding*** - achieve a calving interval of 365 days with <10% empty;
  - ***Financial*** - reduce milk production costs through increased use of the Teagasc eProfit Monitor and the Teagasc Cost Control Planner programmes.

Over 2,000 suppliers attended financial expansion workshops

Monitor Farms

Eleven monitor farms were selected for intensive advice. Each farm hosted three farm walks over the course of the programme.

On average 1,500 suppliers attended the walks annually.

Discussion Groups

1,750 suppliers participated in groups over the course of the programme.

An average of 10 meetings were held annually.

Glanbia Suppliers

All suppliers received regular updates and yearly reviews on the performance of the monitor farms through local press, texting, newsletters and farm walks.

Over 2,000 suppliers attended financial expansion workshops over the three years of the programme.

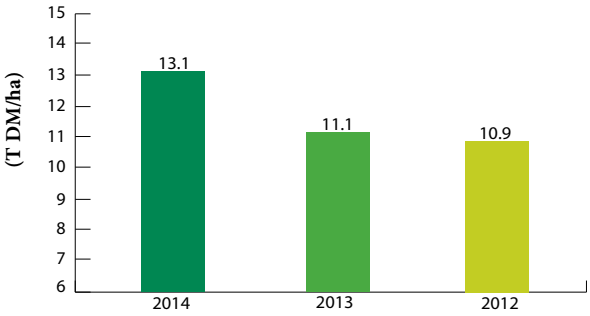
According to one of the workshop participants: *"Things are evolving rapidly so you have to keep abreast of any information available".*

Monitor Farm Performance

Grass Production

Grass grown on the milking platform increased by an average of 2.2 T DM/ha between 2010 and 2014 allowing stocking rate to be increased by approximately ½ cow per hectare.

Figure 1 - Grass growth (tons of dm/ha) 2012, 2013 & 2014



- A soil fertility improvement plan was implemented on all monitor farms.

Increased application of P and K and lime spreading was carried out as initially only 8% of soils had optimum soil index and pH.

- Up to 30% of the grassland area on monitor farms was reseeded during the course of the programme.
- Regular grassland measurement led to management improvements and higher utilisation rates. Monitor farmers carried out up to 35 grass cover walks annually.

This increase in grass yield was worth approximately €14,000 per farm[1] in 2014.

The monitor farmers met every two months on each other's farms

Breeding

Progress was made in improving breeding performance on monitor farms resulting in a shorter calving interval and higher six week calving rate.

- The major focus was on management during the breeding season with all farmers using aids to improve heat detection and records to monitor progress.
- The breeding season was reduced to an average of 11 weeks and empty rate averaged less than 10% in 2014.
- In future years, breeding a greater number of heavier, more fertile replacements will contribute to further improvements in reproduction and milk solids yield:
  - The EBI of replacement heifers now averages €200;
  - The number of heifers reared is 50 yearlings per 100 cows;
  - The percentage of replacements calving at 24 months of age has increased by 20% to 90%.

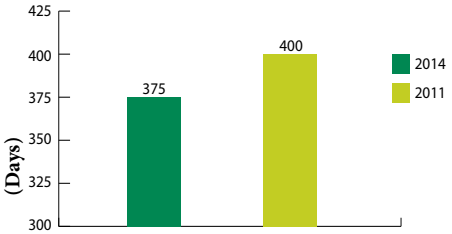


Figure 2 - Calving Interval on the Monitor Farms in 2011 and 2014

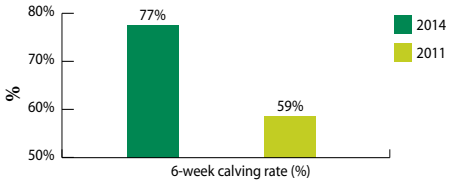


Figure 3 - Six week calving rate on the monitor farms in 2011

This increase in 6-week calving rate was worth approximately €15,000 per farm[2] in 2014

Financial Performance - Monitor Farms

- Output was influenced by milk price - compostition improvement was worth 1.61[3] c/litre over the period.
- Variable costs rose by 2.3 c/litre.
- Fixed costs remained almost static - only increasing by 0.4 c/litre.
- Across the period, net margin per hectare rose by over €750/ha through a combination of milk price increase, composition improvement (worth €193/ha), cost control and intensification.

	2014	2012	2010
Cow number	138	123	115
Replacement heifers (LU/100 cows)	50	44	48
Milk yield/cow (litres)/kg milk solids	5,405/423	5,362/410	5,614/418
Fat/protein (%)	4.14/3.48	4.01/3.41	3.86/3.37
Somatic cell count (cells/ml)	143	176	200
Stocking rate (LU/ha)	2.22	2.05	2.07
Grass utilisation (T DM/ha)	9.25	8.4	9.1
Calving interval (days)	375	390	404
Gross output (c/litre)	40.3	35.5	31.5
Co-op price (c/litre)	39.3	33.3	31.2
Total variable costs (c/litre)	12.7	11.9	10.4
Total fixed costs (c/litre)	10.3	9.5	9.9
Net margin (c/litre)	17.2	14.1	11.3
Net margin (€/ha)	2,057	1,535	1,302
Net margin (€/ha) at 2010 milk and input prices	1,830	1,737	1,302

Inflation in agricultural prices over the 2010 to 2014 period was an estimated 25%. Dairy production costs on the monitor farms increased by 13% from 20.3 c/litre to 23.0 c/litre over the same period.

Adjusted for inflation and milk price, the profitability of the dairy enterprise on the monitor farms increased by almost €39,000 over the period.

The efficiency gains achieved are worth over €500 per hectare.

[1] Assumes a grass utilisation rate of 80% and grass used is worth €200 per tonne.
[2] Assumes each 1% increase in 6-week calving rate is worth €8.26/per cow.
[3] Based on a 30 c/litre milk price (each 0.1% increase in fat and protein per cow is worth 0.3 and 0.7 c/litre respectively).

Discussion Group Member Progress

- Herd size increased by 10%.
- Stocking rate and the number of replacement heifers increased by 0.16 LU/ha and 11% respectively.
- Variable costs rose by 2.3 c/litre
- Fixed costs rose by 1.6 c/litre

Adjusted for inflation and milk price, the profitability of the dairy enterprise for a matched sample of discussion group members increased by almost €30,000 over the period.

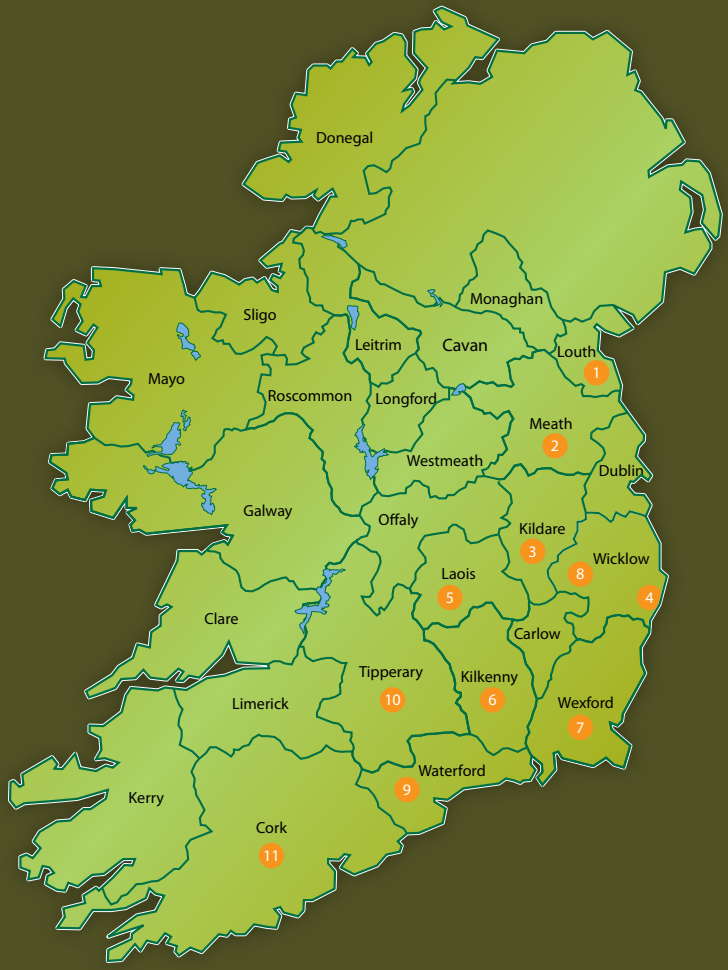
	2014	2012	2010
Cow number	115	103	98
Replacement heifers (LU/100 cows)	42	43	38
Milk yield/cow (litres) /kg milk solids	5,162 (407)	4,919 (382)	5,057 (382)
Fat/protein (%)	4.15/3.52	4.08/3.46	3.91/3.42
Stocking rate (LU/ha)	2.28	2.19	2.13
Grass utilisation (T DM/ha)	9.4	8.6	8.2
Calving interval (days)	394	391	396
Gross output (c/litre)	39.7	34.8	31.1
Total variable costs (c/litre)	12.4	12.1	10.1
Total fixed costs (c/litre)	11.0	10.7	9.4
Net margin (c/litre)	16.2	12.1	11.6
Net margin (€/ha)	1,911	1,303	1,244
Net margin (€/ha) at 2010 milk and input prices	1,724	1,573	1,244

"Cow and land fertility is key. Measure it and manage it to unlock profits in a simple low cost system".
Denis Kenny, Kilmanagh, Co. Kilkenny

"Breeding for solids and grass management have all made a vast improvement to my profit".
Fran Allen, Crookstown, Co. Kildare

"The key is to measure what you're doing".
Eamonn Duggan, Durrow, Co. Laois

Teagasc/Glanbia Monitor Farmers 2011 -2014



1. Andrew Purcell/Alf McGlew, Louth
2. David & Peter Farrell, Meath
3. Francis Allen, Kildare
4. Paul Kinch, Wicklow
5. Eamonn Duggan, Laois
6. Dennis Kenny, Kilkenny
7. David French, Wexford
8. Piers Dennis/John Roche, Wicklow
9. Adrian & Pierce Casey, Waterford
10. Dermot & Rd. Lanigan, Tipperary
11. Tom Dineen, Cork

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