

Teagasc National Farm Survey 2019

Dairy Enterprise Factsheet



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Irish Dairy Farming Factsheet 2019 Average Performance



Milk Sales per ha
11,477 litres (up 5.7%)



Days at Grass
233 days (up 4 days)



Milk Production per cow
5,608 litres (up 3.2%)



Stocking Rate
2.11 lu/ha



Milk price actual fat/protein
34.55 cent per litre (down 3%)



Dairy Enterprise* area
38.41 ha (up 0.3%)



Average Dairy Herd Size
80.7 dairy cows (up 2.6%)



Milk Fat Content
average 4.11% (up 15 basis points)



Concentrates Fed/Dairy Cow
average 1,144 kg (down 15.1%)



Milk Protein Content
average 3.50% (up 16 basis points)



Concentrates fed/litre of milk
average 0.20 kg (down 17.6%)



Milk Solids per Cow
average 427.4 kg (up 4.9%)



Nitrogen per ha of grassland
184.6 kg (down 2.6%)



Basic Payment Scheme
per farm € 16,501



Total Production Costs
24.98 cent per litre (down 7.1%)
€2,938 per hectare (down 2.1%)



Somatic Cell Count
165,000 cells/ml (down 5.7%)



Gross Margin Dairy Enterprise
20.83 cent per litre (up 1%)
€2,513 per hectare (up 6.7%)



Net Margin Dairy Enterprise
10.0 cent per litre (up 4.1%)
€1,248 per hectare (up 10.1%)



Source: Teagasc National Farm Survey 2019 (Preliminary Results)

Note: Percentage changes are relative to 2018

*Dairy Enterprise area refers to area for dairy cows only

Background

The 2019 Teagasc National Farm Survey (NFS) recorded data on close to 900 farms representative of over 90,000 dairy, beef, sheep and tillage farms nationally. This analysis summarises the results of dairy enterprises, excluding farms supplying mostly liquid milk and herds of 10 cows or less. The results below relate to over 300 surveyed dairy farms, representative of 15,916 dairy farms nationally.

1. Analysis of Financial Performance

Data from the Teagasc NFS indicates that the average milk price fell by 3% in 2019 resulting in a 4.1% reduction in gross output per litre year-on-year. However, a large reduction in concentrate feed expenditure, and reduced expenditure on forage resulted in a 10.8% decrease in total direct costs for the average dairy enterprise. Total fixed costs decreased by 1.6% overall in 2019. On average, total production costs decreased by 7.1% in 2019, to approximately 24.98 cent per litre of milk. The margin figures reported here include costs for hired labour, but the methodology does not treat farm family labour as a cost (see Box 1). Decoupled payments are also excluded.

Table 1: Average gross margin and average net margin 2018 and 2019

	2018	2019	2019/2018
	cent/litre		% change
Milk Price	35.62	34.55	-3.0
Total Gross Output	36.48	34.98	-4.1
Concentrate Costs	6.96	5.83	-16.2
Pasture and Forage Costs	5.17	4.80	-7.2
Other Direct Costs	3.73	3.52	-5.6
Total Direct Costs	15.87	14.15	-10.8
Gross Margin	20.62	20.82	1.0
Energy and Fuel	2.27	2.23	-1.8
Hired Labour	0.62	0.60	-3.2
Rent/Leasing of Land	1.02	0.97	-4.9
Machinery Depreciation	1.66	1.88	13.3
Buildings Depreciation	1.34	1.35	0.7
Remaining Fixed Costs	4.10	3.80	-7.3
Total Fixed Costs	11.01	10.83	-1.6
Total Costs	26.88	24.98	-7.1
Net Margin	9.60	10.00	4.2

Source: Teagasc National Farm Survey 2019

Box 1: The cost of on-farm family labour

Net margin represents the returns to family labour, farm management, owned land and capital. It is very difficult to segregate the returns to each of these components with an acceptable level of accuracy. Allowing for an approximation of the value of on-farm family labour input, would place a value on own labour input, equivalent to 12 cent per litre. This estimate is based on the self-reported labour input of respondents and an assumed wage of €15 per hour. This figure does not have the accuracy associated with the estimates of costs for other farm inputs. Own labour costs for smaller herds, with low yielding cows, a less desirable farm layout and inferior yard and parlour facilities would be expected to be several cents higher than the average. By contrast the most labour efficient farms would be expected to have substantially lower family labour costs.

With much improved production conditions in 2019 relative to 2018, milk production per hectare increased by close to 6% on the average farm. In spite of the increase in production volume, there was a fall in total production costs per hectare, allowing net margin, on a per hectare basis, to increase by 10% for the average dairy enterprise in 2019. The driver of the fall in production costs in 2019 was primarily reduced feed and forage expenditure, reversing the large, weather related, increase in those costs, which occurred in 2018.

Table 2: Average net margin 2018 and 2019: Dairy Farms

		2018	2019	2019/2018 % change
Milk Produced*	litres/hectare	11,291	11,917	5.5
Total Costs	€/hectare	3,000	2,938	-2.1
Net Margin	€/hectare	1,134	1,248	10.1

Source: Teagasc National Farm Survey 2019

*Milk Produced includes milk fed to calves as well as milk delivered to dairies

2. Variation in Financial Performance

Beyond the average, it is useful to also explore the performance of the better and less well performing cohorts. Splitting the population into three groups on the basis of gross margin per hectare, Table 3 show dairy enterprise results for the best performing one-third (Top), the middle third (Middle) and bottom third (Bottom). A wide variation across some cost components continues to be observed. Expenditure on pasture and forage in particular was significantly higher for the bottom cohort, who also had a lower milk price.

Table 3: Output, costs and net margin Top, Middle and Bottom thirds 2018: Dairy Farm

	Top	Middle	Bottom	Average
	cent/litre			
Gross Output	36.21	34.87	33.86	34.98
Concentrate Feeds	5.15	5.73	6.61	5.83
Pasture & Forage	4.26	4.65	5.48	4.80
Other Direct Costs	3.36	3.43	3.77	3.52
Energy & Fuel	1.83	2.21	2.65	2.23
Hired Labour	0.82	0.60	0.37	0.60
Other Fixed Costs	7.40	8.28	8.31	8.00
Total Costs	22.82	24.90	27.20	24.98
Net Margin	13.39	9.98	6.66	10.00

Source: Teagasc National Farm Survey 2019

Relative to 2018, concentrate expenditure decreased in 2019 for all three cohorts, reflecting the return to normal weather conditions. Expenditure on hired labour remains substantially lower in the bottom cohort, which typically would have lower output and hence less need for hired labour. A wide variation in net margin is reported across the three groups varying from 13.4 cent per litre on top performing farms to 6.7 cent per litre at the bottom group. Relative to 2018, net margin was up 0.5 cent per litre in 2019 for the top group, net margin per litre for the middle group was unchanged, while for the bottom group net margin was up almost 0.75 cent per litre.

Table 4 presents the variation in output and gross margin per hectare for the Top, Middle and Bottom groups in 2019. Gross margins per hectare were up for all three cohorts, with the largest increases occurring for the Bottom cohort. In 2019 the gap between the top and bottom group in terms of gross margin was just over €2,100 per hectare, which was quite similar to 2018.

Table 4: Output and profit for Top, Middle and Bottom one-thirds 2019: Dairy Farms

		Top	Middle	Bottom	Average
Stocking Rate	cows per hectare	2.55	2.10	1.70	2.11
Milk Sold	litres per hectare	15,587	11,727	8,456	11,918
Concentrates fed	kg per cow	1,136	1,136	1,158	1,144
Concentrates fed	kg per litre milk produced	0.18	0.20	0.23	0.20
Gross Output	€ per hectare	5,631	4,078	2,858	4,187
Direct Costs	€ per hectare	2,019	1,650	1,354	1,775
Gross Margin	€ per hectare	3,613	2,428	1,504	2,428

Source: Teagasc National Farm Survey 2019

3. Variation in Technical Performance

Table 5 presents a selection of technical performance indicators for dairy farms in 2019. All of these measures of technical performance were affected by the difficult weather experienced in 2018 and the observed improvements in 2019 partly reflect the benefit of normal weather conditions. Milk production per cow continued to increase in 2019 (+3.2% on average). An improvement in milk solids per cow is evident (+4.9%), and there was also a decrease in somatic cell count (down 6%). Concentrate feed use decreased substantially, but did not revert to 2017 levels. Having fallen in 2018, the number of grazing days increased in 2019.

Table 5: Technical Performance Indicators 2018 and 2019: Dairy Farms

		Average 2018	Average 2019	% change
Milk production	litres per cow	5,433	5,608	3.2
Milk produced	litres per hectare	11,291	11,917	5.5
Milk solids	kg per cow	407	427	4.9
Somatic Cell Count	'000 cells/ml	175	165	-5.7
Concentrate feed usage	kg per cow	1,348	1,144	-15.1
Grazing Season	days	229	233	1.7

Source: Teagasc National Farm Survey 2019

Table 6 shows Teagasc Dairying Road Map Targets for 2025 and the percentage of dairy farms achieving each of these performance indicators in 2019. Reflecting the return to normal weather conditions in 2019, the percentage of farms achieving the various targets in 2019 is much improved relative to 2018.

Table 6: Percentage of farms reaching Teagasc 2020 & 2025 Dairying Road Map Targets in 2019

		2025 Target	Farms Achieving Target
			%
Milk yield per cow	litres per cow	≥ 5,573	53.1
Milk solids per cow	kgs per cow	≥ 448	38.9
Protein	%	≥ 3.56	44.9
Fat	%	≥ 4.25	30.4
Somatic Cell Count	cells / ml	≤ 180	63.1
Concentrates per cow	kgs	≤ 750	21.4

Source: Teagasc National Farm Survey 2019

The average herd size in 2019 was over 81 cows. This represents a 26% increase since 2012. Less than 15% of herds have fewer than 40 cows, with just 5% of the total milk pool produced by these small herds.

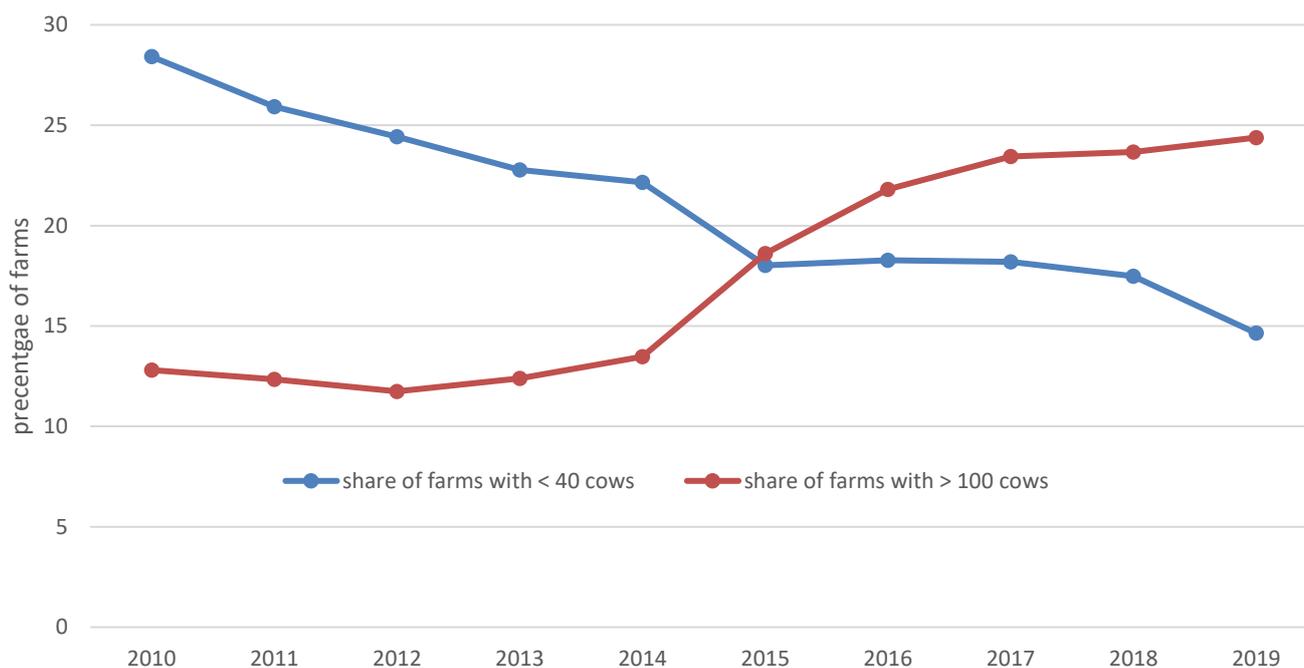
Table 7: Herd Size distribution 2019

Herd Size	% of Farms	% of Milk production
<40	14.6	4.6
40-60	25.0	14.8
60-100	36.0	32.3
>100	24.4	48.3
Total	100	100

Source: Teagasc National Farm Survey 2019

Data from the NFS also indicates that farms of over 100 cows or more now produce over 48% of total milk production, the equivalent figure in 2010 was only 30%. Figure 1 illustrates how farm scale has increased over the last decade, with over 24% of farms reporting a herd size of 100 cows or more in 2019 compared to only 13% in 2010.

Figure 1: Structural change in Irish Dairy Farm Size 2010-2019



Source: Teagasc National Farm Survey 2019

For further information on this publication or other Teagasc National Farm Survey Publications please contact NFS@teagasc.ie