

Teagasc National Farm Survey 2022








































Dairy Enterprise Factsheet



Agricultural Economics and Farm Surveys Department,
Teagasc
Athenry
Co Galway
H65 R718
Ireland

Irish Dairy Farming Factsheet 2022

Average Performance

	Milk Sales per ha 11,587 litres (down 2%)			Days at Grass 236 days (down 4 days)	
	Milk Production per cow 5,716 litres (down 1%)			Stocking Rate 2.10 lu/ha (unchanged)	
	Milk price actual fat/protein 59.88 cent per litre (up 49%)			Dairy Enterprise* area 44.3 ha (unchanged)	
	Average Dairy Herd Size 93 dairy cows (up 1%)			Milk Fat Content average 4.26% (up 0.04 points)	
	Concentrates Fed/Dairy Cow average 1,246 kg (up 6%)			Milk Protein Content average 3.53% (down 0.01 point)	
	Concentrates fed/litre of milk average 0.22 kg (up 7%)			Milk Solids per Cow average 441 kg (down 2%)	
	Nitrogen per ha of grassland 160 kg (down 7%)			Basic Payment Scheme per farm € 17,576 (up 2%)	
	Total Production Costs 36.79 cent per litre (up 37%) €4,379 per hectare (up 35%)	 		Somatic Cell Count 173,000 cells/ml (up 4%)	
	Gross Margin Dairy Enterprise 41.07 cent per litre (up 57%) €4,925 per hectare (up 54%)	 		Net Margin Dairy Enterprise 24.54 cent per litre (up 74%) €2,975 per hectare (up 71%)	 

Source: Teagasc National Farm Survey 2022. Please note that percentage changes are relative to 2021.

*Dairy Enterprise area refers to area for dairy cows only.

Background

The 2022 Teagasc National Farm Survey (NFS) recorded data on 795 farms representative of almost 85,860 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 262 surveyed dairy farms, representative of 15,319 dairy farms nationally.

1. Analysis of Financial Performance

Data from the Teagasc NFS indicate that there was a dramatic increase in the average milk price (50%) in 2022 resulting in a 49% rise in gross output per litre. There was a very large increase in input prices, but a notable reduction in the volume of fertiliser used, leading to a 37% increase in total direct costs for the average dairy enterprise. This increase is composed mainly of a 41% increase in concentrate feed costs and 48% increase in pasture and forage. There was also a substantial increase of 38% in total fixed costs. This was primarily due to substantially higher depreciation costs for both machinery (61%) and buildings (61%), and higher expenditure on labour and energy. On average, total production costs increased by 37%, to approximately 36.8 cent per litre of milk. Margin figures reported include hired labour costs, but the methodology does not treat farm family labour as a cost (see Box 1) since this labour is rewarded by the farm's profit. Decoupled payments are also excluded.

Table 1: Average gross margin and average net margin 2021 and 2022

	2021	2022	2022/2021
	cent/litre		% change
Milk Price	40.11	59.88	49.29%
Total Gross Output	40.92	61.33	49.85%
Concentrate Costs	6.36	8.95	40.67%
Pasture and Forage Costs	4.53	6.73	48.48%
Other Direct Costs	3.91	4.58	17.03%
Total Direct Costs	14.81	20.26	36.81%
Gross Margin	26.12	41.07	57.24%
Electricity and Fuel	2.33	3.22	38.22%
Hired Labour	0.69	0.85	23.51%
Rent/Leasing of Land	1.12	1.30	16.42%
Machinery Depreciation	2.04	3.29	61.06%
Buildings Depreciation	1.72	2.77	61.35%
Remaining Fixed Costs	4.11	5.11	24.45%
Total Fixed Costs	12.00	16.53	37.83%
Total Costs	26.80	36.79	37.27%
Net Margin	14.12	24.54	73.73%

Source: Teagasc National Farm Survey 2022

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 per litre.

Table 2: Average net margin 2021 and 2022: Dairy Farms

		2021	2022	2022/2021 % change
Milk Produced*	litres/hectare	12,164	12,007	-1.29%
Total Costs	€/hectare	3,237	4,379	35.29%
Net Margin	€/hectare	1,745	2,975	70.44%

Source: Teagasc National Farm Survey 2022

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

2. Variation in Financial Performance

Moving 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 shows 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, with input expenditure typically higher for the bottom cohort, which is the main reason for the lower net margin in the bottom group.

Table 3: Output, costs and net margin Top, Middle and Bottom thirds 2022: Dairy Farm

	Top	Middle	Bottom	Average
	cent/litre			
Gross Output	62.62	61.56	59.83	61.33
Concentrate Feeds	8.76	9.00	9.09	8.95
Pasture & Forage	6.02	6.52	7.62	6.73
Other Direct Costs	4.39	4.49	4.86	4.58
Energy & Fuel	2.76	3.14	3.73	3.22
Hired Labour	0.97	0.83	0.76	0.85
Other Fixed Costs	11.63	12.90	12.85	12.46
Total Costs	34.53	36.88	38.90	36.79
Net Margin	28.09	24.69	20.92	24.54

Source: Teagasc National Farm Survey 2022

Relative to 2021, concentrate feed expenditure increased substantially in 2022 for all three cohorts, remaining highest for the bottom group, for whom pasture and forage costs were also highest. Costs relating to hired labour were highest for the top group, which are generally higher output farms. A wide variation in net margin is reported across the three groups, varying from an average of 28.1 cent per litre on the top performing farms to an average of 20.9 cent per litre for the bottom group.

Table 4 presents the variation in output and gross margin per hectare for the Top, Middle and Bottom groups in 2022. Gross margin per hectare increased for the top cohort (up €2,172) with increases for the middle and bottom groups (€1,792 and €1,236 respectively). In 2022 the gap between the top and bottom groups in terms of gross margin was almost €3,326 per hectare, a €926 increase on the previous year.

Table 4: Output and profit for Top, Middle and Bottom one-thirds 2022: Dairy Farms

		Top	Middle	Bottom	Average
Stocking Rate	cows per hectare	2.45	2.10	1.76	2.10
Milk Production*	litres per hectare	15,376	12,085	8,643	12,007
Concentrates fed	kg per cow	1,371	1,286	1,084	1,246
Concentrates fed	kg per litre milk produced	0.21	0.22	0.22	0.22
Gross Output	€ per hectare	9,588	7,396	5,131	7,353
Direct Costs	€ per hectare	2,984	2,462	1,853	2,429
Gross Margin	€ per hectare	6,603	4,934	3,277	4,925

Source: Teagasc National Farm Survey 2022

*includes milk fed to calves

3. Variation in Technical Performance

Table 5 presents a selection of technical performance indicators for dairy farms in 2022. Most of these remained relatively stable compared to 2021. Milk production per cow and per hectare decreased by 1% relative to 2021. A decline in milk solids per cow is also evident (-1.6%). In addition, there was deterioration in the average herd level somatic cell count (up 4%). Concentrate feed use also increased in 2022, reflecting a continuing trend that has emerged over the last decade. Overall, grazing days were down slightly in 2022 compared to 2021.

Table 5: Technical Performance Indicators 2021 and 2022: Dairy Farms

		Average 2021	Average 2022	% change
Milk production per cow	litres	5,781	5,716	-1%
Milk production per hectare	litres	12,164	12,007	-1%
Milk solids	kg per cow	449	441	-1.6%
Somatic Cell Count	'000 cells/ml	166	173	+4%
Concentrate feed usage	kg per cow	1,170	1,246	+6%
Grazing Season	days	240	236	-2%

Source: Teagasc National Farm Survey 2021

Table 6 shows Teagasc Dairying Road Map Targets for 2027 and the percentage of dairy farms achieving each of these performance indicators in 2022.

Table 6: Percentage of farms reaching selected Teagasc 2027 Dairying Road Map Targets in 2022

		2027 Target	% Farms Achieving Target in 2022
Milk delivered per cow	litres per cow	≥ 5,750	53
Milk solids per cow	kg per cow	≥ 465	43
Somatic cell count	cells / ml	≤ 150	48
Dairy stocking rate	livestock units	2.2	41
Concentrates per cow	kgs	≤ 750	15
Nitrogen fertiliser use	kg per ha	<170kg	62
N applied at protected urea	% of farms	50%	14
% of farms using protected urea	% of farms	n.a.	37
Slurry applied using LESS	% of slurry	80%	75

Source: Teagasc National Farm Survey 2022

These technical performance figures reflect significant improvements year-on-year in terms of some key environmental metrics in particular. In 2022, there was a 12 percentage point increase in the proportion of dairy farms applying less than 170kg of nitrogen per hectare compared to 2021, with the increased price of fertiliser in 2022 likely the main driver. In addition, the share of nitrogen applied as protected urea also increased in 2022, as did the proportion of farms using protected urea and the share of slurry applied using low emissions spreading techniques. There were small year-on-year declines in some other metrics e.g. milk volume and solids, with a slight improvement in the share of farms achieving a herd level somatic cell count of less than 150,000 cells/ml.

In 2022, the average herd size was 93 cows, a 41% increase compared to 2014. In 2022, smaller herds, with less than 40 cows, accounted for 14% of all dairy herds and 4% of the total milk pool. On the other hand, more than one third of herds comprised at least 100 cows, accounting for almost 60% of total milk production in 2022.

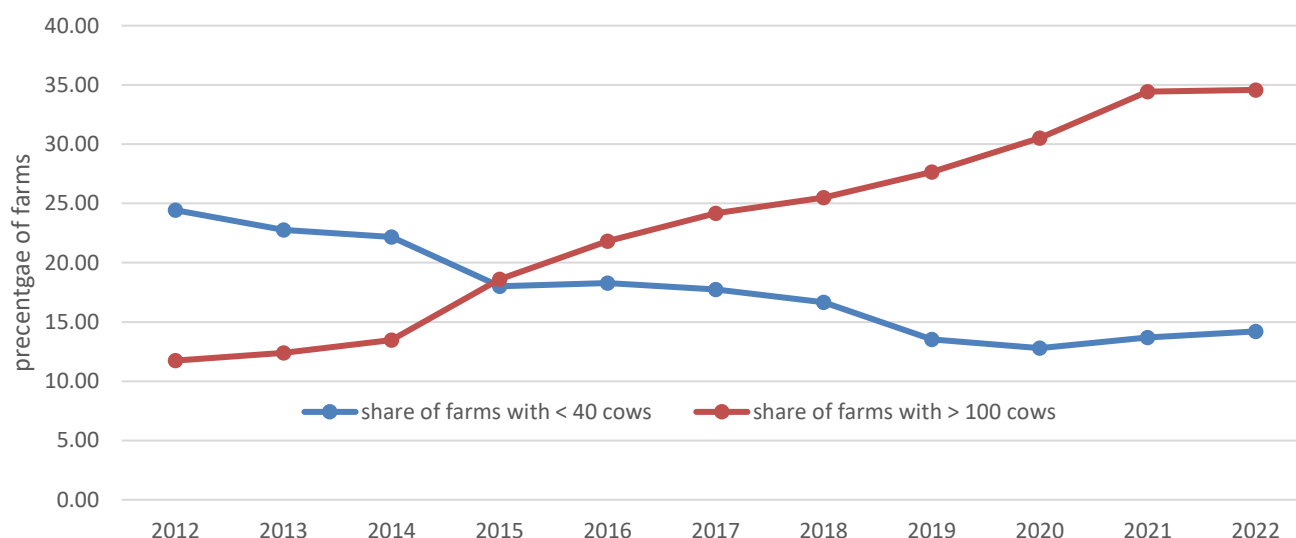
Table 7: Herd Size distribution 2022

Herd Size	% of Farms	% of Milk production
<40	14	4
40-60	16	9
60-100	35	28
>100	35	59
Total	100	100

Source: Teagasc National Farm Survey 2022

The increase in dairy farm scale, represented by farms with at least 100 cows since 2012 is reflected in Figure 1. The data indicates that this cohort has more than doubled over the period, from 12% in 2012 to 35% in 2022. The proportion relatively stable compared in 2022 compared to 2021.

Figure 1: Structural change in Irish Dairy Farm Size 2012-2022



Source: Teagasc National Farm Survey 2022

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