

Teagasc National Farm Survey 2021

Cereals

Enterprise Factsheet

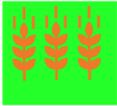


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Irish Cereal Enterprise 2021

Average Performance

 **Irish Cereal Production**
2.46 million tonnes (up 22%) 

 **Irish Cereal Area**
274,600 ha (up 3%) 

 **Irish Barley Area**
183,900 ha (down 5%) 

 **Irish Wheat Area**
62,300 ha (up 33%) 

 **Spring Barley price**
average €233 per tonne (up 33%) 

 **Winter Wheat price**
average €235 per tonne (up 3%) 

 **Spring Barley Yield per ha**
average 7.2 tonnes (up 7%) 

 **Winter Wheat Yield per ha**
average 10.4 tonnes (up 17%) 

 **Total Production Cost per ha
Spring Barley**
average €1,442 (up 18%) 

 **Total Production Cost per ha
Winter Wheat**
average €1,922 (up 21%) 

 **Net Margin for Spring Barley**
average €450 per ha (up 309%) 

 **Net Margin for Winter Wheat**
average €706 per ha (up 78%) 

 **Target Yield for Spring Barley**
7.2 tonnes per hectare
achieved on 59% of farms

 **Target Yields for Winter Wheat**
10.3 tonnes per hectare
achieved on 70% of farms

 **Net Margin Target Spring Barley**
€150 per hectare
achieved on 74% of farms

 **Net Margin Target Winter Wheat**
€450 per hectare
achieved on 72% of farms

Background

The 2021 National Farm Survey (NFS) recorded data on over 837 farms, representative of just under 85,000 farms nationally. The financial results (provisional) for these farms are available in the National Farm Survey 2021 report which is available at www.teagasc.ie/publications. This publication summarises the results for the major cereal enterprises (winter wheat and spring barley) on farms within the survey. In this cereals enterprise analysis there were 85 farms with a spring barley enterprise in the survey in 2021, representative of approximately 103,000 hectares nationally. All farms with a cereal enterprise were included in this analysis, in previous years certain size restrictions were applied to this analysis, but due to sample size issues it was decided to not apply size restrictions to the analysis for 2021 results (and comparison figures for 2020).

1. Analysis of Financial Performance

Cereal yields in 2021 were higher than in 2020 for all the major cereal crops. Cereal yields for spring barley, increased by 7%, while winter wheat yields increased by 17%. In addition to an increase in yields, cereal prices were also much higher in 2021 compared to 2020, with the price received at farm gate 33% higher for spring barley and 3% higher for winter wheat. The combined effect of the aforementioned factors resulted in a large increase in gross output for spring barley and winter wheat, of 42% and 33% respectively, in 2021 compared to 2020.

Direct costs increased significantly for spring barley and winter wheat in 2021, with allocated fixed costs also increasing for both crops. Some of the increase in the fixed costs allocated to the cereal crops is associated with the method by which fixed costs are allocated across enterprises. This allocation across each enterprise is based on the proportion of gross output. In addition, the population of farmers growing spring barley in particular tend to be a heterogeneous group of farmers, involved in a variety of enterprises, which tend to experience volatility in fixed costs from one year to the next. Given the change in output value, direct and fixed costs, the net margin on spring barley farms in 2021 was €450 per hectare, up from €110 per hectare in 2020. The net margin for the winter wheat in 2021 was €706 per hectare, up from €397 per hectare in 2020 (excluding Basic Payment).

Table 1: Average gross and net margin € per hectare: Spring Barley and Winter Wheat 2020/2021¹

	2020 Spring barley	2021 Spring barley	2021 to 2020 % change	2020 Winter wheat	2021 Winter wheat	2021 to 2020 % change
Yield per hectare	6.8	7.2	7%	8.9	10.4	17%
Price per tonne	176	233	33%	227	235	3%
Gross Output/hectare	1,336	1,892	42%	1,981	2,628	33%
Fert., Seed, Crop Prot.	479	522	9%	634	730	15%
Machinery Hire	180	221	23%	124	225	81%
Other direct costs	9	19	106%	16	16	1%
Total Direct Costs	668	766	15%	774	971	25%
Gross Margin	668	1,125	69%	1,207	1,657	37%
Fixed Costs	558	676	21%	810	951	17%
Total Costs	1,226	1,442	18%	1,584	1,922	21%
Net Margin	110	450	309%	397	706	78%

Source: Teagasc National Farm Survey 2021

¹ The estimates value of straw is based on market value prices minus variables costs of production.

Table 2 presents average gross and net margins per tonne of crop produced for 2020 and 2021. Total costs per tonne increased for spring barley and decreased slightly for winter wheat in 2021, while the price per tonne of cereals increased. The increase in costs and price of cereals per tonne led to an increase in the net margin per tonne for both spring barley. Whilst there was slight decrease in gross output for the winter wheat crop in 2021, there was a larger decrease in total costs per tonne, which led to an increase in net margin per tonne for in 2021.

Table 2: Average gross and net margin € per tonne of spring barley and winter wheat 2020/2021

	2020	2021	2021 to 2010	2020	2021	2021 to 2020
	Spring barley	Spring barley	% change	Winter wheat	Winter wheat	% change
Cereal price per tonne	176	233	33%	227	235	3%
Total Gross Output	203	265	31%	273	265	-3%
Fert., seed, Crop Prot.	73	74	2%	78	72	-8%
Machinery Hire	28	33	16%	17	24	41%
Other direct costs	2	3	78%	2	3	110%
Total Direct Costs	103	110	7%	97	99	3%
Gross Margin	100	155	55%	176	165	-6%
Allocated Fixed Costs	87	100	15%	103	89	-14%
Total Costs	189	210	11%	199	188	-6%
Net Margin	13	55	316%	73	77	4%

Source: Teagasc National Farm Survey 2021

2. Variation in Financial Performance

The data in Tables 1 and 2 presents the average performance across farms and the tonnage of spring barley and winter wheat nationally. The wide variation in financial performance that occurs between different cereal producers throughout the country is not apparent. However, Table 3 shows the average costs of production and margin for farms and splits the sample into top and bottom performing spring barley farms on the basis of net margin per hectare.

Table 3: Variation in output and margin 2021: top and bottom performing spring barley farms

	Top	Bottom	% Difference between Top and Bottom
Average crop area (hectares)	16	13	18%
Yield (tonnes per hectare)	8	7	15%
Price per tonne	238	229	4%
Gross output (€ per hectare)	2,124	1,667	22%
Fert., seed, spray (€ per hectare)	531	512	4%
Machinery hire (€ per hectare)	148	292	-97%
Gross Margin (€ per hectare)	1,427	833	42%
Fixed Costs (€ per hectare)	603	747	-24%
Total Costs (€ per hectare)	1,300	1,580	-22%
Net Margin (€ per hectare)	824	86	90%

Source: Teagasc National Farm Survey 2021

Total costs of production per hectare in the top performing spring barley group was 22% lower than the bottom performing spring barley producers. Gross output per hectare for the top half of spring barley farms was 22% higher than the bottom half. Overall, this results in a €738 per hectare difference in net margin per hectare between the bottom and top performing spring barley farms.

Table 4 shows the distribution of net margin per hectare on spring barley and winter wheat farms in 2021. In 2021, 14% of spring barley farms and 6% of winter wheat farms produced a negative net margin, i.e., made a loss when allocated overhead costs were deducted from gross margins. At the opposite end of the distribution, 22% of spring barley farms and 55% of winter wheat farms earned a net margin of €750 or more in 2021.

Table 4: Distribution of spring barley and winter wheat net margin € per hectare: 2020 and 2021

Net Margin €/hectare	Spring barley		Winter wheat	
	2020	2021	2020	2021
<0	38	14	2	6
0 to 250	36	20	33	7
251 to 500	12	22	7	25
501 to 750	7	22	31	7
>750	7	22	26	55

Source: Teagasc National Farm Survey 2021

3. Variation in Technical Performance

Table 5 presents average technical performance from 2019 to 2021 for a range of indicators. Technical performance increased in many of the measures examined in 2021 relative to 2020, due to the increase in yields year-on-year. However, it is important to remember that these partial productivity indicators do not take cereal price and straw receipts into account. In addition, various Teagasc strategy documents have outlined a number of farm performance indicators for tillage crops for the year 2025. Table 6 shows the percentage of farms that achieved a selection of these targets in 2019, 2020 and 2021.

Table 5: Technical Performance Indicators Tillage Farms 2019-2021

	2019	2020	2021
Spring barley land productivity (yield/hectare)	7.0	6.8	7.2
Winter wheat land productivity (yield/hectare)	9.8	8.9	10.4
Winter wheat Crop protection (€ per tonne crop)	29	30	27
Land Rent (€ /hectare spec. tillage farms)	475	457	513
Machinery hire (€/hectare UAA spec. tillage farms)	132	123	143

Source: Teagasc National Farm Survey 2021

Table 6: Percentage of farms achieving selected Teagasc Tillage 2027 Roadmap Targets

Teagasc Roadmap Targets for 2027	2019	2020	2021
Yield tonnes per hectare			
Spring Barley ≥ 7.2	53	42	59
Spring Barley ≥ 7.4 (target for top 50%)	45	35	57
Winter Wheat ≥ 10.3	48	40	70
Winter Wheat ≥ 10.6 (target for top 50%)	37	30	63
Winter Barley ≥ 10.0	20	6	31
Winter Barley ≥ 10.2 (target for top 50%)	17	6	18
Gross Margin per hectare			
Spring Barley $\geq \text{€}650$	35	45	85
Winter Wheat $\geq \text{€}1,200$	29	46	77
Winter Barley $\geq \text{€}1,000$	34	27	80
Net Margin per hectare			
Spring Barley $\geq \text{€}150$	32	38	74
Winter Wheat $\geq \text{€}450$	38	58	72
Winter Barley $\geq \text{€}375$	25	40	77

Source: Teagasc National Farm Survey 2021

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