

Teagasc National Farm Survey 2020





























Cereals

Enterprise Factsheet



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

Irish Cereal Enterprise 2020 Average Performance

 <p>Irish Cereal Production 2.01 million tonnes (down 16%)</p> 	 <p>Irish Cereal Area 265,600 ha (no change)</p> 
 <p>Irish Barley Area 193,200 ha (up 8%)</p> 	 <p>Irish Wheat Area 47,000 ha (down 26%)</p> 
 <p>Spring Barley price average €176 per tonne (up 7%)</p> 	 <p>Winter Wheat price average €181 per tonne (up 2%)</p> 
 <p>Spring Barley Yield per ha average 6.8 tonnes (down 4%)</p> 	 <p>Winter Wheat Yield per ha average 9.0 tonnes (down 8%)</p> 
 <p>Total Production Cost per ha Spring Barley average €1,223 (up 8%)</p> 	 <p>Total Production Cost per ha Winter Wheat average €1,548 (down 5%)</p> 
 <p>Net Margin for Spring Barley average €115 per ha (up slightly)</p> 	 <p>Net Margin for Winter Wheat average €384 per ha (up slightly)</p> 
 <p>Target Yield for Spring Barley 7.4 tonnes per hectare achieved on 36% of farms</p>	 <p>Target Yields for Winter Wheat 10.2 tonnes per hectare achieved on 42% of farms</p>
 <p>Gross Margin Target Spring Barley €540 per hectare achieved on 50% of farms</p>	 <p>Gross Margin Target Winter Wheat €860 per hectare achieved on 60% of farms</p>

Source: Teagasc National Farm Survey and Central Statistics Office

Background

The 2020 National Farm Survey (NFS) recorded data on just over 800 farms. The financial results (provisional) for these farms are available in the National Farm Survey 2020 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 terms of representation for the following analysis, there were 71 farms with a spring barley enterprise in the survey in 2020, representing approximately 112,000 hectares. 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 2020 results (and comparison figures for 2019).

1. Analysis of Financial Performance

Cereal yields in 2020 were lower than in 2019 for all the major cereal crops. Cereal yields for spring barley, decreased by 4%, while winter wheat yields decreased by 8%. However, in addition to a decreases in yields, cereal prices were higher in 2020 compared to 2019, with the price received at farm gate 7% higher for spring barley and 2% higher for winter wheat. An increase in straw prices was not sufficient to compensate for lower straw yield in the spring barley crop in 2020. The combined effect of the aforementioned factors resulted in no change in gross output for spring barley and an increase in gross output by 4% for winter wheat in 2020.

Direct costs decreased significantly for spring barley and winter wheat in 2021, with allocated fixed costs increasing slightly for winter wheat and decreasing for spring barley. Some of the increase in the fixed costs allocated to the winter wheat crop is associated with the method in 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 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. Another important factor in relation to overhead costs is the cost associated with capital depreciation, which experienced a decline in 2020 compared to 2019, due to a decline in the capital goods index. Given the change in output value, direct and fixed costs, the net margin on spring barley farms in 2020 was €115 per hectare, up from minus €1 per hectare in 2019. The net margin for the winter wheat in 2020 was €384 per hectare, up from €219 per hectare in 2019 (excluding Basic Payment).

Table 1: Average gross and net margin € per hectare: Spring Barley and Winter Wheat 2019/2020¹

	2019 Spring barley	2020 Spring barley	2020 to 2019 % change	2019 Winter wheat	2020 Winter wheat	2020 to 2019 % change
Yield per hectare	7.0	6.8	-4%	9.8	9.0	-8%
Price per tonne	164	176	7%	178	181	2%
Gross Output/hectare	1337	1338	0%	1851	1931	4%
Fert., Seed, Crop Prot.	525	480	-9%	708	645	-9%
Machinery Hire	202	177	-12%	161	120	-25%
Other direct costs	17	8	-51%	34	4	-88%
Total Direct Costs	744	665	-11%	903	782	-13%
Gross Margin	593	672	13%	948	1149	21%
Fixed Costs	595	557	-6%	729	766	5%
Total Costs	1339	1223	-8%	1632	1548	-5%
Net Margin	-2	115	> 100%	219	384	75%

Source: Teagasc National Farm Survey 2020

Table 2 presents average gross and net margins per tonne of crop produced for 2019 and 2020. Total costs per tonne decreased for spring barley and for winter wheat in 2020, while price per tonne of cereals increased. The fall in costs and increase in the price of cereals per tonne led to an increase in the net margin per tonne for both spring barley and winter wheat. In 2020 net margin per tonne for spring barley was only €14 per tonne and for winter wheat it was €43 per tonne.

Table 2: Average gross and net margin € per tonne of Spring Barley and Winter Wheat 2019/2020

	2019 Spring barley	2020 Spring barley	2020 to 2019 % change	2019 Winter wheat	2020 Winter wheat	2020 to 2019 % change
Cereal price per tonne	164	176	7%	178	181	2%
Total Gross Output	194	202	4%	208	213	3%
Fert., seed, Crop Prot.	78	73	-7%	75	82	9%
Machinery Hire	32	28	-14%	19	14	-25%
Other direct costs	4	1	-60%	4	2	-51%
Total Direct Costs	114	102	-11%	97	97	~
Gross Margin	80	100	26%	111	116	4%
Allocated Fixed Costs	87	87	~	76	74	-4%
Total Costs	201	188	-6%	173	171	-1%
Net Margin	-8	14	185%	35	43	22%

Source: Teagasc National Farm Survey 2020

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

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 barely farms on the basis of net margin per hectare.

Table 3: Variation in output and margin 2020: top and bottom performing Spring barley farms

	Bottom	Top	% Difference between Top and Bottom
Average crop area (hectares)	18	14	-21%
Yield (tonnes per hectare)	6.4	7.2	12%
Price per tonne	161	191	18%
Gross output (€ per hectare)	1164	1513	30%
Fert., seed, spray (€ per hectare)	486	474	-3%
Machinery hire (€ per hectare)	236	118	-50%
Gross Margin (€ per hectare)	432	914	111%
Fixed Costs (€ per hectare)	589	526	-11%
Total Costs (€ per hectare)	1321	1125	-15%
Net Margin (€ per hectare)	-157	388	247%

Source: Teagasc National Farm Survey 2020

Total costs of production per hectare are more variable in the spring barley group than the winter wheat group, with a 15 per cent cost differential on spring barley farms (per hectare) compared to a 2 per cent cost differential on winter wheat farms. Gross output per hectare for the top half of spring barley farms was 30% higher than the bottom half. Overall, this results in a €545 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 2020. In 2020, 38% of spring barley farms and 5% 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, 8% of spring barley farms and 27% of winter wheat farms earned a net margin of €750 or more in 2020.

Table 4: Distribution of net margin € per hectare: 2019 and 2020

Net Margin €/hectare	Spring barley		Winter wheat	
	2019	2020	2019	2020
<0	50	38	16	5
0 to 250	27	36	21	34
250-500	18	12	32	8
500-750	2	7	19	26
>750	4	8	12	27

Source: Teagasc National Farm Survey 2020

3. Variation in Technical Performance

Table 5 presents average technical performance from 2018 to 2020 for a range of indicators. Technical performance decreased in many of the measures examined in 2020 relative to 2019, due to the decrease 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 2018, 2019 and 2020.

Table 5: Technical Performance Indicators Tillage Farms 2018-2020

	2018	2019	2020
Spring barley land productivity (yield/hectare)	5.5	7.0	6.8
Winter wheat land productivity (yield/hectare)	8.5	9.5	9.0
Winter wheat Crop protection (€ per tonne crop)	33.6	29.6	32.7
Land Rent (€ /hectare spec. tillage farms)	348	360	378
Machinery hire (€/hectare UAA spec. tillage farms)	126	133	116

Source: Teagasc National Farm Survey 2020

Table 6: Percentage of farms achieving selected Teagasc Tillage 2025 Roadmap Targets

Teagasc Roadmap Targets for 2025	2018	2019	2020
	% of farms		
Spring Barley yield ≥ 7.4t/hectare	9	45	36
Wheat yield ≥ 10.2/hectare	15	54	42
Spring Barley yield ≥ 7.7 t/hectare (target for 10%)	4	30	25
Wheat yield ≥ 10.5t/ha (10%)	15	37	31
Spring Barley Gross Margin $\geq \text{€}540$ per hectare	62	50	60
Winter Wheat Gross Margin $\geq \text{€}860$ per hectare	80	60	61

Source: Teagasc National Farm Survey 2020

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