

Teagasc National Farm Survey 2019

Cereals

Enterprise Factsheet



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Irish Cereal Enterprise 2019

Average Performance

 **Irish Cereal Production** 
2.62 million tonnes (up 29%)

 **Irish Cereal Area** 
267,700 (up 3%)

 **Irish Barley Area** 
179,400 ha (down 3%)

 **Irish Wheat Area** 
63,500 ha (up 9%)

  **Spring Barley price** 
average €158 per tonne (down 24%)

  **Winter Wheat price** 
average €164 per tonne (down 22%)

  **Spring Barley Yield per ha** 
average 7.5 tonnes (up 29%)
Source: Teagasc, NFS

  **Winter Wheat Yield per ha** 
average 10.2 tonnes (up 16%)
Source: Teagasc, NFS

  **Total Production Cost per ha**
Spring Barley 
average €1,327 (up 8%)

  **Total Production Cost per ha**
Winter Wheat 
average €1,544 (down 2%)

  **Net Margin for Spring Barley** 
average €61 per hectare

  **Net Margin for Winter Wheat** 
average €356 per hectare

  **Target Yield for Spring Barley**
7.4 tonnes per hectare
achieved on 48% of farms

  **Target Yields for Winter Wheat**
10.2 tonnes per hectare
achieved on 54% of farms

  **Gross Margin Target Spring Barley**
€540 per hectare
achieved on 70% of farms

  **Gross Margin Target Winter Wheat**
€860 per hectare
achieved on 67% of farms

Background

The 2019 National Farm Survey (NFS) recorded data on close to 900 farms. The financial results (provisional) for these farms are available in the National Farm Survey 2019 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 80 farms with a spring barley enterprise in the survey in 2019, representing approximately 79,000 hectares. Farms with less than 10 hectares of winter wheat or spring barley are excluded from the following analysis.

1. Analysis of Financial Performance

Cereal yields in 2019 were higher than in 2018 for all the major cereal crops. Cereal yields for spring barley, increased by 29%, while winter wheat yields increased by 16%. However, in addition to increases in yields, cereal prices were lower in 2019 compared to 2018, with the price received at farm gate 24% lower for spring barley and 22% lower for winter wheat. Straw receipts also decreased significantly in 2019 compared to 2018. The combined effect of the aforementioned factors resulted in a decrease in output value for both spring barley and winter wheat by 4% and 14% respectively in 2019.

Direct costs increased slightly for spring barley and winter wheat in 2019, with allocated fixed costs decreasing slightly for winter wheat and increasing for spring barley. Some of the increase in the fixed costs allocated to the spring barley 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. Given the change in output value, direct and fixed costs, the net margin on spring barley farms in 2019 was €61 per hectare, down from €214 per hectare in 2018. The net margin for the winter wheat in 2019 was €356 per hectare, down from €632 per hectare in 2018 (excluding Basic Payment).

Table 1: Average gross and net margin € per hectare: Spring Barley and Winter Wheat 2018/2019¹

	2018	2019	% Change	2018	2019	% Change
	Spring barley	Spring barley	(Spring barley)	Winter wheat	Winter wheat	(Winter wheat)
Yield per hectare	5.8	7.5	29%	8.8	10.2	16%
Price per tonne	209	158	-24%	210	164	-22%
Gross Output/hectare	1,442	1,388	-4%	2,211	1,900	-14%
Fert., Seed, Crop Prot.	499	504	1%	673	693	3%
Machinery Hire	152	170	12%	133	122	-8%
Other direct costs	17	7	-62%	7	4	-42%
Total Direct Costs	668	681	2%	813	819	1%
Gross Margin	774	706	31%	1,397	1,081	-23%
Fixed Costs	559	645	15%	765	725	-5%
Total Costs	1,227	1,327	8%	1,578	1,544	-2%
Net Margin	214	61	-72%	632	356	-44%

Source: Teagasc National Farm Survey 2019

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 2018 and 2019. Total costs per tonne decreased for spring barley and for winter wheat in 2019, while price per tonne of cereals also decreased. The fall in costs and prices of cereals per tonne led to a fall in the net margin per tonne for both spring barley and winter wheat. In 2019 net margin per tonne for spring barley was only €7 per tonne and for winter wheat it was €41 per tonne.

Table 2: Average gross and net margin € per tonne of Spring Barley and Winter Wheat 2018/2019

	2018 Spring barley	2019 Spring barley	2019 to 2018 % change	2018 Winter wheat	2019 Winter wheat	2019 to 2018 % change
Cereal price per tonne	209	158	-24%	210	164	-22%
Total Gross Output (incl. straw)	250	187	-25%	255	187	-27%
Fertiliser, seed, crop protection	92	68	-26%	78	70	-11%
Machinery Hire	29	23	-19%	15	12	-22%
Other direct costs	3	1	-67%	1	0	-48%
Total Direct Costs	123	92	-25%	94	82	-13%
Gross Margin	127	94	-26%	161	105	-35%
Allocated Fixed Costs	100	87	-13%	75	64	-15%
Total Costs	224	179	-20%	169	146	-14%
Net Margin	27	7	-73%	85	41	-52%

Source: Teagasc National Farm Survey 2019

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 2019: top and bottom performing Spring barley farms

	Bottom	Top	% Difference between Top and Bottom
Average crop area (hectares)	20	20	-1%
Yield (tonnes per hectare)	7.0	7.9	13%
Price per tonne	154	162	5%
Gross output (€ per hectare)	1268	1520	20%
Fert., seed, spray (€ per hectare)	515	493	-4%
Machinery hire (€ per hectare)	212	124	-41%
Gross Margin (€ per hectare)	533	898	68%
Fixed Costs (€ per hectare)	731	551	-25%
Total Costs (€ per hectare)	1466	1173	-20%
Net Margin (€ per hectare)	-198	347	-275%

Source: Teagasc National Farm Survey 2019

Total costs of production per hectare are more variable in the spring barley group than the winter wheat group, with a 20 per cent cost differential on spring barley farms (per hectare) compared to a 6 per cent cost differential on winter wheat farms. Gross output per hectare for the top half of spring barley farms was 20% higher than the bottom half.

Overall, this results in a €703 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 2019. In 2019, 44% 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, 5% of spring barley farms and 22% of winter wheat farms earned a net margin of €750 or more in 2019.

Table 4: Distribution of net margin € per hectare: 2018 and 2019

Net Margin €/hectare	Spring Barley		Winter Wheat	
	2018	2019	2018	2019
<0	26	44	~	5
0 to 250	25	32	8	22
250-500	24	15	16	29
500-750	14	4	32	22
>750	10	5	45	22

Source: Teagasc National Farm Survey 2019

3. Variation in Technical Performance

Table 5 presents average technical performance from 2017 to 2019 for a range of indicators. Technical performance increased in many of the measures examined in 2019 relative to 2018, 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 2017, 2018 and 2019.

Table 5: Technical Performance Indicators Tillage Farms 2017-2019

	2017	2018	2019
Spring barley land productivity (yield/hectare)	7.1	5.8	7.5
Winter wheat land productivity (yield/hectare)	10.9	8.8	10.2
Winter wheat Crop protection (€ per tonne crop)	25	34	29
Land Rent (€ /hectare spec. tillage farms)	307	348	334
Machinery hire (€/hectare UAA spec. tillage farms)	113	126	156

Source: Teagasc National Farm Survey 2019

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

Teagasc Roadmap Targets for 2025	2017	2018	2019
	% of farms		
Spring Barley yield ≥ 7.4 t/hectare	40	8	48
Wheat yield ≥ 10.2 /hectare	68	15	54
Spring Barley yield ≥ 7.7 t/hectare (target for 10%)	31	2	42
Wheat yield ≥ 10.5 t/ha (10%)	59	15	33
Winter Wheat Gross Margin $\geq \text{€}860$ per hectare	72	92	67
Spring Barley Gross Margin $\geq \text{€}540$ per hectare	60	70	70

Source: Teagasc National Farm Survey 2019

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