



The 2016 National Farm Survey (NFS) recorded data on 861 farms. The full financial results for these farms are available in the National Farm Survey 2016 report which is available at [www.teagasc.ie/publications](http://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, there were 86 farms with a spring barley enterprise in the survey in 2016, representing approximately 82,000 hectares. Farms with less than 10 hectares of winter wheat or spring barley are excluded from the following analysis.

**Table 1: Average gross and net margin € per hectare: Spring Barley and Winter Wheat 2015/2016**

	2015 Spring barley	2016 Spring barley	% Change (Spring barley)	2015 Winter wheat	2016 Winter wheat	% Change (Winter wheat)
Yield per hectare	7.4	6.8	-7%	10.8	9.3	-14%
Price per tonne	145	140	-3%	155	151	-2%
<b>Gross Output/hectare</b>	<b>1,135</b>	<b>1,038</b>	<b>-8%</b>	<b>1,757</b>	<b>1,554</b>	<b>-12%</b>
Fert., Seed, Crop Prot.	522	488	-6%	706	683	-3%
Machinery Hire	112	108	-4%	151	143	-6%
Other direct costs	25	17	-30%	5	4	-21%
<b>Total Direct Costs</b>	<b>659</b>	<b>617</b>	<b>-6%</b>	<b>863</b>	<b>830</b>	<b>-4%</b>
<b>Gross Margin</b>	<b>476</b>	<b>422</b>	<b>-11%</b>	<b>894</b>	<b>725</b>	<b>-19%</b>
Fixed Costs	498	436	-12%	633	584	-8%
<b>Total Costs</b>	<b>1,157</b>	<b>1,053</b>	<b>-9%</b>	<b>1,496</b>	<b>1,413</b>	<b>-6%</b>
<b>Net Margin</b>	<b>-22</b>	<b>-14</b>	<b>~</b>	<b>261</b>	<b>141</b>	<b>-46%</b>

## 1. Analysis of Financial Performance

Whilst cereal yields in 2016 were above the five year average, yields were down on the 2015 levels. Cereal yields for winter wheat, decreased by 14%, whilst spring barley yields decreased by 7%. In addition to reductions in yields, cereal prices were also slightly lower in 2016 compared to 2015, by about 2 to 3 %. This resulted in a decrease in output value for both spring barley and winter wheat by 8% and 12 % respectively. Direct costs decreased for both crops, with allocated fixed cost decreasing for both crops also. Some of the reduction in the fixed costs allocated to the spring barley and winter wheat crops is associated with the method in which fixed costs are allocated across enterprises, with allocation based on a proportion of gross output across all enterprises on the tillage farm. Given that output values associated with these cereal enterprises declined in 2016 relative to 2015, the allocation of whole farm fixed costs also declined for the aforementioned crops. Given the change in output value and direct and fixed costs, the net margin on spring barley farms in 2016 was negative at -€14 per hectare, and the

net margin for the winter wheat crop decreased by €120 per hectare, to €141 per hectare, in 2016 relative to 2015 (excluding Single Farm Payment figures).

Table 2 presents average gross and net margins per tonne of crop produced for 2015 and 2016. Total costs per tonne decreased slightly for spring barley and increased for winter wheat. The change in costs and prices per tonne translated into a decline in net margin per tonne. In 2016 net margin per tonne for spring barley remained negative and for winter wheat decreased from €24 to €15 per tonne.

**Table 2: Average gross and net margin € per tonne of Spring Barley and Winter Wheat 2015/2016**

	2015 Spring barley	2016 Spring barley	2016 to 2015 % change	2015 Winter wheat	2016 Winter wheat	2016 to 2015 % change
Cereal price per tonne	145	140	-3%	155	151	-2%
<b>Total Gross Output (incl. straw)</b>	<b>154</b>	<b>152</b>	<b>-1%</b>	<b>163</b>	<b>167</b>	<b>2%</b>
Fertiliser, seed, crop protection	71	72	1%	66	73	12%
Machinery Hire	15	16	4%	14	15	9%
Other direct costs	3	3	~	0	0	~
Total Direct Costs	89	90	2%	80	89	14%
<b>Gross Margin</b>	<b>64</b>	<b>62</b>	<b>-4%</b>	<b>83</b>	<b>78</b>	<b>-6%</b>
Allocated Fixed Costs	68	64	-5%	59	63	7%
Total Costs	157	154	-2%	139	152	9%
<b>Net Margin</b>	<b>-3</b>	<b>-2</b>	<b>~</b>	<b>24</b>	<b>15</b>	<b>-37%</b>

## 2. Variation in Financial Performance

The wide variation that occurs throughout the country in financial performance between different cereal producers is not apparent in Tables 1 and 2 as the data represents the average of all farms. Table 3 shows the average costs of production and margin for farms and splits the sample into top and bottom performers on the basis of net margin per hectare per farm.

**Table 3: Variation in output and margin 2016: top and bottom performing cereal farms**

	Spring Barley			Winter Wheat		
	Bottom	Top	% Diff.	Bottom	Top	% Diff.
Average crop area (hectares)	19	20	4%	23	49	
Yield (tonnes per hectare)	6.7	7.0	5%	8.04	10.34	129%
Price (€ per tonne)	135	145	7%	146	155	6%
<b>Gross output (€ per hectare)</b>	<b>926</b>	<b>1,134</b>	<b>22%</b>	<b>1,268</b>	<b>1,792</b>	<b>41%</b>
Fert., seed, spray (€ per hectare)	522	460	-12%	614	740	21%
Machinery hire (€ per hectare)	155	68	-56%	275	33	-88%
Other direct costs (€ per hectare)	31	6	-81%	1	6	480%
<b>Gross Margin (€ per hectare)</b>	<b>212</b>	<b>600</b>	<b>183%</b>	<b>378</b>	<b>1,013</b>	<b>168%</b>
Fixed Costs (€ per hectare)	464	412	-11%	516	640	24%
Total Costs (€ per hectare)	1,179	946	-20%	1,406	1,419	1%
<b>Net Margin (€ per hectare)</b>	<b>-283</b>	<b>188</b>	<b>-167%</b>	<b>-138</b>	<b>373</b>	<b>370%</b>

In 2016 total costs of production per hectare fell more for spring barley than for winter wheat, with a 20 per cent cost reduction for spring barley farms (per hectare) and only a 1% reduction for winter wheat farms. Gross output per hectare for the top half

of spring barley farms was 22% higher than the bottom half, and the same figure on winter wheat farms was 41% in 2016. Overall, this results in a €471 and €511 per hectare difference in net margin per hectare between the bottom and top performing spring barley and winter wheat farms.

Table 4 shows the distribution of net margin per hectare on spring barley and winter wheat farms in 2015 and 2016. In 2016, 46% of spring barley farms and 37% 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, only 4% of winter wheat farms earned a net margin of €750 or more in 2016, with no spring barley farms falling into this category in 2016.

**Table 4: Distribution of net margin € per hectare: 2015 and 2016**

Net Margin €/hectare	Spring Barley		Winter Wheat	
	2015	2016	2015	2016
	% of farms			
<0	52	46	24	37
0 to 250	24	39	13	34
250-500	23	12	30	14
500-750	1	3	25	8
>750	~	~	8	4

### 3. Variation in Technical Performance

Table 5 presents average technical performance from 2012 to 2016 for a range of indicators. Technical performance decreased in many of the measures examined in 2016 relative to 2015, due to the reduction in yields year-on-year.

**Table 5: Technical Performance Indicators Tillage Farms 2012-2016**

	Average 2012	Average 2013	Average 2014	Average 2015	Average 2016
Spring barley land productivity (yield/hectare)	5.6	7.0	7.0	7.4	6.8
Winter wheat land productivity (yield/hectare)	7.2	8.8	10.0	10.8	9.3
Winter wheat Crop protection (€ per tonne crop)	37	30	26	26	29
Land Rent (€ /hectare spec. tillage farms)	NA	311	300	334	374
Machinery hire (€/hectare UAA spec. tillage farms)	100	120	94	107	93

In addition, various Teagasc strategy documents have outlined a number of performance indicators for tillage crops for farms for the year 2025. Table 6 shows the percentage of farms that achieved a selection of these targets in 2015 and 2016.

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

Teagasc Roadmap Targets for 2025	2015	2016
	% of farms	
Spring Barley yield ≥7.4t/hectare	52	25
Wheat yield ≥10.2/hectare	68	37
Spring Barley yield ≥7.7 t/hectare (target for 10% of producers)	43	21
Wheat yield ≥10.5t/ha (target for 10% of producers)	61	33
Winter Wheat Gross Margin ≥€860 per hectare	58	40
Spring Barley gross Margin ≥€540 per hectare	41	38

For further information on this publication or other Teagasc National Farm Survey Publications please contact [NFS@teagasc.ie](mailto:NFS@teagasc.ie)