Tillage Road Map 2030

Tillage sector profile

The tillage crops sector had a total output value in 2024 of €647m (including €264m of potatoes). In recent years, the total land area under tillage crop production has varied due to volatility in profitability, extreme weather events and increased competition for rented and leased land. Over 85% of tillage land area is under cereal production although there has been a substantial increase in land sown to beans and oilseed rape particularly in the last two years. There may also be some potential for other cereal crops such as rye into the future.

Within cereals, barley is the largest crop (70%) followed by wheat (20%) and oats (10%) with some variation each year due to weather and responses to market signals etc. There is also variation in crop sowing date with two thirds of the barley sown in spring, while 90% of the wheat is winter sown and it is more evenly balanced (close to 50-50) for oats.

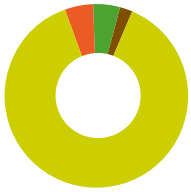
In 2023, some 4,903 farmers were considered to be specialist tillage farmers while some tillage cereals crops were grown on a total of 10,290 farms. The majority of tillage output (excluding potatoes) supplies the animal feed industry with estimates suggesting that less than 15% is used for brewing, distilling and direct human consumption (e.g. oats). Over the past decade, the Irish drinks industry has grown exports by 60%, reaching €2.1 billion across 113 international markets. This expansion highlights the sector's strong global demand and resilience. The relative scale and value of the sector is presented below.

Tillage sector statistics

Of total agriculture output 2024:

Tillage **5%**

Animal **88%**



Horticulture **4%**

Potatoes **3%**

24% Average % of total land rented for specialist tillage in 2023

Average farm size **70.7 ha**

Land area (2024) of tillage/Total UAA **6.6%**

Farm families (2023) are mainly tillage **4%** and some tillage **4%**

Land - Barley (ha)	
2022	190,250
2023	186,340
2024	181,400

Land - Wheat (ha)	
2022	67,230
2023	55,780
2024	47,700

Land - Oats (ha)	
2022	28,180
2023	27,230
2024	29,800

Land - Potato (ha)	
2022	8,490
2023	8,210
2024	9,300

Land - other (ha)	
2022	30,100
2023	41,100
2024	39,000

Output - Barley (tonnes)	
2022	1,585,360
2023	1,313,310
2024	1,362,700

Output - Wheat (tonnes)	
2022	720,010
2023	519,920
2024	413,600

Output - Potato (tonnes)	
2022	367,950
2023	322,200
2024	368,300

Output - Oats (tonnes)	
2022	241,620
2023	206,810
2024	235,800

Output - Barley (€/millions)	
2022	484
2023	231
2024	258

Output - Wheat (€/millions)	
2022	178
2023	79
2024	78

Output - Oats (€/millions)	
2022	59
2023	34
2024	45

Output - Potato (€/millions)	
2022	170
2023	220
2024	264

Output - other (€/millions)	
2022	126
2023	120
2024	113

Performance indicators for selected areas

	Performance indicator	2023 (3 yr. avg)	2030	Target System
Winter Wheat	Yield (t/ha)	9.7	10.3	11.2
	Cost of production (€/t)	€209	€220	€203
Spring Barley	Yield (t/ha)	6.8	7.2	8.4
	Cost of production (€/t)	€239	€253	€217
Premium Markets	Irish grain utilised by drinks industry (% of total)	14%	17%	19%
	Potatoes –% Non main crop (premium market)	18%	20%	23%
Sustainability *(5 year average) NFS	GHG emissions (kg CO_2e/t grain) - LCA	300	225	200
	*GHG emissions (kg CO_2e/ha) – Tillage only farms IPCC	640	600	500
	*Nitrogen surplus (kg N/ha) – NFS	24	20	18
	*Phosphorus surplus (kg P/ha) - NFS	2.44	2	2
	Straw Incorporation (total area ha)	50,000	55,000	70,000
	Break crops as % of total area –national figure	24%	25%	25%
	Cover crop area (% of eligible area)	17%	25%	35%

Tillage sector challenges and responses supported by Teagasc

Economic

Price outlook
The tillage sector will see continued volatility due to global production swings in response to consumption, climate changes, international conflict, etc. Teagasc is focusing on the development of profitable, low carbon, climate adapted systems which are resilient in the face of international market fluctuations and offer the potential for added value into premium markets, both for the primary yield but also via the valorisation of crop residues/ processing waste products.

Product quality
Market demand continues to grow for plant based products which has yet to be exploited fully. Teagasc will provide innovative solutions for new product formulations and novel processing technologies to support the generation of plant-based ingredients for the food and feed industry.

Tillage sector challenges and responses supported by Teagasc continued...

Economic

Technology adoption and cost control
Embracing new technologies is essential for increasing output and offsetting rising costs. Effective cost control measures will be crucial to maintaining the current crop mix and ensuring farm profitability. Teagasc will continue upskilling farmers and the wider industry to become early adopters of new technologies, including improved crop varieties and alternative crop types. Additionally, Teagasc will support farmers with financial benchmarking to guide decision-making and implement targeted cost control measures.

Social

Balanced rural development
Successful tillage farming will be key to the balanced development of agriculture and rural economies and a new and more diverse range of crops will need to be grown for food and non-food use. Teagasc programmes support the development of crops that provide a high value product and ongoing employment opportunities.

Farming technology
Tillage farmers continue to avail of precision technologies to enhance machinery operation and better placement of crop inputs. Teagasc will support digitalisation in Irish tillage by working with industry partners to enhance the use of precision equipment and on farm data management.

People
While automation continues to grow, the sector still requires a supply of skilled people to work on tillage farms. Teagasc will facilitate upskilling of tillage farmers in people management both at entry level and also in continuous education through their farming career.

Farmer health and safety
Given the high level of machinery use and long hours during peak workload seasons there is a heightened risk of accidents and poor farmer health. Teagasc supports all strategies to improve farm safety and supports tillage farmers to adopt automation and other strategies to minimise risk.

Enterprise integration
Increased integration of tillage and livestock farming can be beneficial to all. Teagasc is promoting integration through the Signpost Programme and the development of tools to optimise Nutrient Management between crop and livestock farmers.

Tillage sector challenges and responses supported by Teagasc continued...

Environment

Water quality
Minimising nutrient losses to waterways is crucial to improving water quality. Teagasc supports action to improve water quality through collaborative programmes such as the Better Farming for Water: 8 - Actions for Change campaign, with a specific focus on cover crops and buffers for tillage farms.

Carbon efficient farming
While tillage farming is a carbon efficient land use enterprise in Ireland it is still a sector that produces some GHG emissions. Teagasc is supporting tillage farmers to take targeted climate action in areas such as fertiliser choice, straw incorporation, crop rotation and cover crops.

Biodiversity
The Irish tillage sector will need to implement measures to improve the spaces for nature on farm, both in terms of quantity and quality. Through research and the Signpost programme Teagasc is exploring how production and biodiversity can be optimised on Tillage farms.

Soils
Maintaining soils in good health with good physical, chemical and biological characteristics is essential to achieve sustainability on tillage farms. A large part of the Teagasc tillage programme is to encourage tillage farmers to improve soil fertility and health through reducing compaction and adding organic matter.

Integrated Pest Management
The public are becoming increasingly concerned with issues regarding the best use of pesticides. Robust Integrated Pest Management is central to Teagasc programmes through modern approaches to crop breeding and management to support the safe and judicious use of pesticides to preserve crop yield and quality.

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The road map for tillage is available on **www.teagasc.ie**