

Highlights from the 2025 Irish oat trials – Donegal and Carlow

Oats a relatively low input crop, well adapted to the Irish climatic conditions. There is a drive to enhance the diversity, yield and quality of oats available for Irish farmers. UCD and Teagasc are partners in a large multinational project, OatFrontiers. Oatfrontiers aims to enhance oat production in the frontier regions of Europe, through selection of the varieties with the best local adaptation and enhancement of our ability to breed oats adapted to the regions. In 2024 and 2025, OatFrontiers organized field trials in 15 locations including four locations in Norway, 1 in Sweden, 2 in Iceland, 2 in Finland, 2 in UK, 1 in USA and 3 in Ireland. Irish trial locations in 2025 were Donegal (Killea) and Carlow (Teagasc).

Below you see the results obtained for 10 varieties grown in Donegal and Carlow (Figure 1) under both reduced and optimal input chemical regimes. Evident is (a) the positive impact of chemical inputs on yields, (b) the difference between between cultivars and (c) the generally higher yields in Carlow as compared to Donegal (in some cases due to lodging). Several varieties hold up well in both locations under conventional inputs, notably Belinda, Husky, Timpani, WPB Isabel and Raven. Husky, Timpani and Isabel also performed well under reduced inputs in both locations. Further trials are needed for validation. But **results demonstrate the potential of varietal selection to enhance oat productivity in Donegal.**

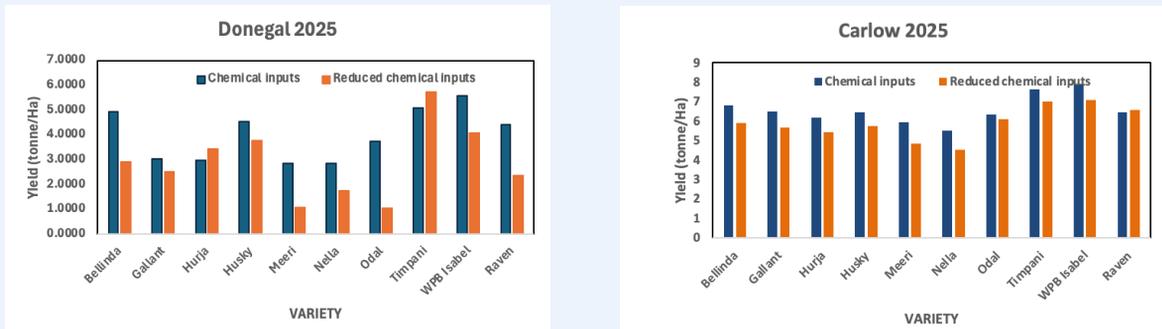


Fig. 1 Yield of 10 oat varieties grown in Donegal and Carlow in 2025 under conventional and reduced chemical inputs.

Ongoing quality and data-analyses will reveal whether some cultivars perform better in specific areas than others in terms of e.g. yield, harvest quality or agronomic performance and what traits and conditions could explain this. The analysis of the prebreeding material of more than 400 oats is already revealing some promising variation that exceeds the currently recommended cultivars. We will tell more about that and signatures of selection in our future newsletters so stay tuned!

Local “madcaps” Are you a cereal-farmer in the NPA area (the blue region on the map) and would like to try out the best performing cultivars from your local area? OatFrontiers aims to provide seeds to a few farmers from each country to test for cultivation in you own fields in 2027. Are you interested? Send an e-mail to Fiona.Doohan@ucd.ie



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OatFrontiers – Adapting oats to the Final Frontier

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Introducing OatFrontiers



Left Photo:
Prof. Fiona Doohan,
Professor of Plant
Health

Middle and right
Photos:
Aerial view and field-
day at Peters farm
in Killea

Meet the oat experts

OatFrontiers is a joint project of 10 partners representing universities, research, institutes and plant breeders. Here are our two project partners in Ireland:

University College Dublin

At UCD, we research crop production, focusing in enhancing the diversity and productivity of crops, including wheat, barley and oats, in Ireland. We do a lot of work on identifying varieties and inputs to reduce yield loss caused by diseases. We also work to identify varieties of wheat, barley, oats, rye and protein crops with improved agronomic traits under reduced and conventional inputs.

Teagasc

The Crop Science Department of Teagasc is situated within the major tillage cultivation belt of Ireland, conducting multi-site trials each year on major cereals and rapeseed crops. The past and current research work on oat agronomy, physiology, and pathology at Teagasc's Crop Research facility is actively delivering scientific evidence to improve oat cultivation in Ireland.

Follow us in social media and prepare to join our events locally or online

Please let us know if you are interested to receive further information about our events.

<https://forms.office.com/e/yy6j5jMBVe>

Further information about the events can be found from our website and from our social media account:

<https://www.interreg-npa.eu/projects/oatfrontiers/>

<https://twitter.com/OatFrontiers>

