

Upping the ante in oats

"All-in-all, from what we've seen so far, Rannoch is like Mascani but with better yields."

BRIN HUGHES

As Senova continues to dominate the winter oats Recommended List, can its latest offering finally entice growers away from stalwart Mascani and add much-desired diversity into the market? *CPM* reveals why hopes are high for this new release.

By Janine Adamson

When a variety ticks all of the desirables for both a grower and the end user, inevitably, it can result in firm staying power. In the case of time-honoured Mascani, that's translated to more than two decades of dominance – driven mainly by its exceptional milling quality and consistency.

While there are many positives from growing something familiar, relying on one variety alone is risky business, particularly in the face of shifting pathogen and pest threats. Equally, where significant advancements have been made in other cereal crops – from yield potential to disease resistance – is it time for winter oats to play catch-up?

With a portfolio including stalwart Mascani and relative newcomer Cromwell, Senova believes it's finally hit the sweet-spot in its latest release, Rannoch. Offering enough familiarity for growers plus an uplift in yield, and kernel content to catch the millers' attention, sales manager, Hugh Harley, believes it deserves to achieve market breakthrough.

"Rannoch is a big step forward. When you consider that its untreated yield is virtually on a par with the treated yield of

the country's most popular oat variety, it highlights what this introduction represents and the breeding progress that has been made," he says.

And arguably, the numbers speak for themselves – with a treated yield of 106 and an untreated yield of 92, Rannoch has a 4% advantage over Cromwell and a 10% advantage over Mascani. This is then combined with a kernel content of 74.5%, a specific weight of 51.7kg/hl, and low screenings of 3.3%.

So the question is can Rannoch succeed, to build on Cromwell's progress so far, and finally break the Mascani spell? According to Brin Hughes of Richardson Milling, Mascani 'just works', therefore a new variety has to at least match and ideally exceed its performance.

"Mascani's quality is what makes it a favourite, particularly those crops sourced within the mill's immediate catchment. In ways, it's boringly consistent – high spec weight, low screenings, gives up its hull easily with low hulling losses.

"From a miller's perspective, we'd like to see Mascani but with higher yields for the grower, which we're starting to see with Cromwell and now Rannoch," he says.

In Brin's opinion, Cromwell is a good variety with similar quality credentials to Mascani, but poses higher screenings through the mill. From a visual perspective, it also appears completely different, he notes.

However, having tested Rannoch in the mill's labs during the past few years, he says it appears promising. "In last year's field trials, as a crop, Rannoch looked very similar to Mascani – it tillers the same and looks similar in height and colour.

"As for its quality, it has similar spec weight and screenings to Mascani, as well as good hullability and low hulling losses. But, its stand-out has to be the yield uplift – we recorded a 1t/ha improvement from a sensibly-drilled,



Bolstering oats

Brin Hughes is pleased breeders are committed to bringing new winter oat varieties to the market because the quality is always there compared with spring oats.

The story behind Rannoch

How breeders achieved such a significant step up

It's taken a while to successfully balance yield with grain quality in winter oats, but the team at IBERS at Aberystwyth University has finally achieved it with Rannoch, says plant geneticist, Dr Catherine Howarth.

With a proven track-record for delivering popular oat varieties – IBERS also bred Mascani – it's been a long time coming, she adds. "The objective was to combine excellent grain quality for millers with enhanced yield and improved disease resistance for growers – somewhat the Holy Grail.

"The cross was first made back in 2013 followed by selection and trialling over successive generations until a stable, high performing new variety was developed. This means it's taken more than 12 years to bring Rannoch to the market."

Catherine explains that the team, led by Dr Sandy Cowan, produces many core breeding lines as part of its development work. It was one of these that was then crossed with Mascani to deliver the uplift in performance.

And importantly, by using modern genomic techniques, IBERS can identify how related varieties are and what portions of the parent lines are present. Catherine points out that this is important to ensure greater genetic diversity and resilience against disease threats.

As such, while Cromwell was a significant move in the right direction for winter oats, Rannoch poses a true step-change, she suggests. "With Rannoch's excellent

disease resistance package including crown rust (7), this translates to its untreated yields matching Mascani when treated. It also has an excellent lodging score so ticks many boxes."

Ben Ling manages seed production at IBERS and says from day one in the field, Rannoch has been remarkably uniform. "We grew a pre-basic crop last season and have a crop in the ground again this year. It's looking very good thanks to Rannoch's excellent disease resistance, only requiring one fungicide. Equally, cereal leaf beetle and aphid damage has been minimal," he highlights.

Although it's hard to find any downsides of Rannoch, Catherine says its mildew score is average (4), but in-line with the rest of the varieties currently available on the Recommended List.

"The acid test will be when a mill run takes place later this year. However, there's a volume of robust data collected during the years that's already demonstrated its grain quality. We just need millers to accept the variety, which isn't always straight-forward," she adds.

Of course, the work at IBERS hasn't stopped with Rannoch, as demonstrated at this year's Cereals Event where Maunsell was unveiled. "Maunsell is an earlier maturing variety with a very good crown rust score," comments Catherine.

"There's an increasing demand for varieties with earlier maturity, particularly in Scotland where the harvest date of winter oats can prove a problem."



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Same but different
Cefetra's Kate Armstrong says in terms of growing Rannoch on farm and crop management, it's very similar to Mascani so has a level of familiarity about it.

RANNOCH AT A GLANCE	
Yield	
Treated	106
Untreated	92
Grain quality	
Specific weight	51.7
Kernel content	74.5
Screenings (% through 2.0mm)	3.3
Agronomics	
Resistance to lodging without PGR	-
Straw length without PGR (cm)	136
Ripening (+/- Mascani)	0
Disease resistance	
Mildew	4
Crown rust	7

**Source – AHDB Recommended List*

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early crop, with consistent yields across the entire drilling spectrum,” he adds.

While Richardsons will remain pro Mascani for now, Brin says confidence is high in Rannoch, and he’s looking forward to assessing the performance of commercial crops. “All-in-all, from what we’ve seen so far, it’s Mascani but with better yields.

“Importantly, we’re pleased that breeders are committed to bringing new winter oat varieties to the market. The quality is always there compared with spring oat varieties, as well as higher yields.”

Cefetra’s Kate Armstrong has also been impressed with Rannoch, with some of the company’s growers involved in a 1000t pilot crop for Richardson Milling. She agrees that the variety looks similar to Mascani but with the benefit of improved yields.

“In terms of growing it on farm and crop management, it’s very similar to Mascani so will have a level of familiarity about it. We hope it’ll deliver security,” she says.

Among its agronomic credentials are a high crown rust score of 7 and a mildew rating of 4. It boasts stiff straw and scores a 7 in resistance to lodging.

According to Kate, growers want to see progression in winter oat varieties. “But without breeders investing in minority crops, we won’t see improvements on-farm, and then volumes will struggle even further.

“The winter oat area is smaller than spring oats, but end users remain committed to winter-planted crops. Hopefully Rannoch will appeal to millers with its quality grain, and reinforce that support of certified seed,” she concludes. ●