



## CEREALS

# Spoiled for choice – grain breeder brings raft of new options to the market

A decade of New Zealand wheat breeding has started to come to fruition for PGG Wrightson Grain with the pending release of not just one but three new milling cultivars in the next two seasons.

**A**nd if that isn't enough to make growers sit up and take notice, the company is also launching a new feed wheat and a new triticale, both of which have emerged as leaders in its continual screening of new genetics from overseas breeding partners.

Grain product development manager Nick Brooks says being able to offer growers and end users multiple new cultivars which have all proven themselves to bring measurable performance gains is both exciting and fulfilling for the PGG Wrightson Grain team.

"You wouldn't normally be in a position to release so many new options at once. But it's been 10 years since Steve Shorter began the breeding programme here, and we've now reached the point where the first lines are ready to be commercialised.

"And we want growers to be able to benefit from these advances without delay."

So is this a sign of things to come?

"Absolutely. The full breeding cycle from choosing parents to the first commercial crops is typically eight to 10 years. We're now at full capacity in terms of the number of crosses made and subsequent lines coming through the pipeline and have a number of exciting varieties emerging at the top end.

"We wanted to increase our milling wheat offering hence the focus of the breeding programme for the first four years was solely that. We added a substantive feed wheat breeding effort six years ago."

In milling wheat as with all new cereals PGG Wrightson Grain releases to NZ growers, cultivars must demonstrate genuine gains to even be considered for market launch, Nick says.

"Grain yield is still first, second and

third priority! If a new breeding line is not competitive for yield, there's no point continuing with it.

"After that comes quality, as determined by end use; and disease resistance."

It would be good for growers to be able to dial back on intensive chemical inputs, he says, and recent PGG Wrightson Grain cultivars with broad disease resistance have helped contribute to this direction.

"We also have some other exciting new innovations we are working on which should bring significant benefits to NZ arable farmers."

Every year, PGG Wrightson Grain makes over 200 crosses for potential new cereal cultivars, as well as screening 300-400 new lines a year from several European breeding partners.

Feed and milling wheat comprise about 90 per cent of its own in-house breeding effort, with triticale making up the difference.

All barley germplasm is imported which travels well to NZ and enters the company's own evaluation programmes for the commercial release of mainly feed and malting cultivars.

"The PGW Grain programme also involves a significant effort into agronomy



Nick Brooks.

trials as we aim to provide growers with technical support and not just release cultivars into the market without support to get the best outcomes for growers and end users."

So what's available this season? Nick says growers will have the chance to put four new cultivars through their paces as limited releases for the coming harvest.

## Milling wheats

Still known as numbered lines, KMW2111 and KMW2206 have been bred for the premium and milling categories respectively, with KMW2111 demonstrating higher yields over current premium standards, Nick says.

KMW2206 meantime is a high yielding autumn and spring cultivar which will potentially replace PGW Grain's Discovery, especially from an autumn planting.

## Feed wheat

KFW2102 is an autumn-sown feed wheat originally bred by PGW Grain's overseas partner Limagrain, and subse-

**Testing times – PGG Wrightson Grain screens hundreds of potential new cereal lines every year.**





requently put through rigorous NZ screening before being selected for commercial release.

A strong performer in the company's own trial programme, it topped many of the Cultivar Performance Trial sites for autumn feed and biscuit cultivars in the 2022/23 season, and features both enhanced yield and disease resistance.

**Triticale**

Ristretto is a grain triticale which again has been developed through the PGW Grain screening process and originated as an imported line, this time from Lantmännen Seed B.V.

It yields significantly more than Empero, which in itself is very high yielding; has excellent take-all tolerance and meets the nutritional requirements of feed end-users, Nick says.

Further out, Nick says, KMW2208 is coming up for release next season as a new quick developing spring milling wheat to replace Sensas, and PGG Wrightson Grain also has another feed wheat in the pipeline close to release, which shows potential as a dual purpose type having some milling quality.

Also in the development pipeline, Ste-



The Mt Hutt feed wheat site encompasses more than 870 plots sown for internal yield and agronomy trials.

ve Shorter is leading a project to develop NZ-adapted soft wheat cultivars that will meet all of NZ's soft milling end-use requirements – not only biscuits but other products such as sauce mixes, ice-cream wafers and noodles.

This project, now entering its 4th year, is funded by the NZ Flour Millers Association with the first selections entering multi-site yield trials this year.

For more detail contact Nick Brooks at PGG Wrightson Grain. 📞



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