



CEREALS

Grain breeder delivers a wave of new varieties to market

Over a decade of New Zealand wheat breeding and several decades of overseas cultivar evaluation has finally come to fruition for PGG Wrightson Grain, with exciting new cultivar releases over the past two to three years.

This includes the new winter feed wheat Skybolt; new feed grain triticale Ristretto and new premium milling wheat Aston.

All of these emerged from the continued screening of new genetics from overseas and the company's own in-house milling wheat breeding programme.

Grain product development manager Nick Brooks says the past couple of years during which the company released multiple new cultivars with proven measurable performance gains have been both exciting and very rewarding for the PGG Wrightson Grain team.

"You wouldn't normally be in a position to release so many new options at once.

"But the programme has reached maturity, where the pipeline is very full, with many exciting potential new cultivars.

Fast delivery

"We also appreciate the past two seasons have been challenging for arable farmers and we want growers to be able to benefit from these advances (i.e. yield, disease and pest resistance etc) without delay.

"We added a substantive wheat breeding effort over ten 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 or overseas line is not competitive for yield, there's no point continuing with it.

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

It would be good for growers to be able to dial back on intensive chemical inputs, he says, and the recent new feed wheat release Skybolt, with robust disease resistance, has helped contribute to this direction significantly.

More on the way

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

However, there is no domestic breeding in barley and therefore all the barley germplasm is imported.

Barley travels well to NZ and enters the company's own extensive evaluation programmes for the commercial release of feed and malting cultivars.

"The PGW Grain programme also involves a significant effort into agronomy 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 could be available in future seasons? Nick says growers will have the chance to put three potential new cultivars through their paces as limited releases next autumn.

Winter barley

LG Caprice is an exciting new winter barley cultivar.

It has been developed through the PGW Grain screening process and originated as an imported line from Limagrain in the UK.

It yields significantly more (10% and higher some years) than older cultivar Surge, which in itself has been a very successful cv the past five years, with good yields and short strong straw.

Currently LG Caprice is on the UK recommended list (candidate cultivar) but not a commercial cultivar, which demonstrates the speed at which PGW Grain has been running to bring a new cultivar to market.

It will also be the first cultivar released into the market with BYDV tolerance, and after the last seasons significant aphid pressure, this will be a welcome trait to have in a new cultivar.

Spring barley

Belter (KSB2419) is an exciting new



Nick Brooks.

spring barley which is non-GN and a 'true' multi-purpose spring barley.

Belter is set to be a big cultivar in the UK market and was bred by Paul Bury who was with Syngenta for many years and is now working for French company Secobra Research in the UK.

Belter performed very well in the CPT/FAR spring barley trials and is setting the bar for not only yield, but overall agronomics.

It has proven itself recently in UK trials and for end-users such as potential brewing and distilling.

Feed wheat

KFW2401 is an autumn-sown feed wheat originally bred by PGW Grain's overseas partner Limagrain, and subsequently put through rigorous NZ screening before being selected for potential commercial release next year.

A strong performer in the company's own trial programme, it is now in FAR/CPT trials this year and features both enhanced yield and disease resistance (especially leaf rust) over the parent line KFW2201, from which KWF2401 was reselected.

It is a longer maturity type, therefore an extra year has been taken to make sure it continues its strong performance and is complementary to Skybolt in the feed wheat market in terms of regional and/or management-specific adaptation.

Also in the development pipeline, Steve Shorter has recently finished 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. New cultivars will flow out of this programme but it will take some work to replace the very successful Voltron wheat.

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