

Varieties

As breeders continue to capture attention with 'big' varietal launches, a range of alternative options are coming to the table which promise to offer growers broader choice and something different. CPM takes a look.

By Janine Adamson

From low-input approaches and regenerative farming to a changing climate and high stress conditions, varietal choice is becoming more nuanced by the season. And while key players continue to launch flagship varieties, new genetic material is beginning to feed through from alternative sources too.

Delivering greater diversity in plant genetics is something which Cope Seeds' managing director Gemma Clarke is striving to address. Set up in 2003 by

Trevor Cope, the business originally aimed to serve organic growers, but as farming shifts away from high input regimes, Gemma believes there's now a wider market for what Cope Seeds has to offer.

Wider appeal

"We've always been perceived as catering for certified organic growers or those seeking niche crops such as naked oats, spelt or rye. But we've found the new material we're introducing from both UK and European breeders has relevance to conventional growers too, particularly those opting for a low-input or regenerative approach," she says.

According to Gemma, although there are three strands to the family-owned business - genetics, seed and grain it's the genetics element of Cope Seeds which can be overlooked, despite 25% of earnings being invested in research, development and trials to ensure continuous progress.

But through building relationships with plant breeders Europe-wide, Cope Seeds is now seeing the fruits of its labour, with the launch of three new varieties. Gemma hopes that by offering stand-out traits, growers will back these curve ball options.

Closest to realisation is Everlong — a Group 4 spring wheat which is now on the AHDB's Recommended List. "Everlong offers the highest treated yield (107%) and specific weight (80.4kg/hl) of any spring wheat on the RL yet also provides growers >

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Gemma Clarke says the new genetic material Cope Seeds is introducing to the UK has appeal to both organic and conventional growers alike.





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Trait-stacked varieties bred for the future



▶ the market including varietal blends, but our pipeline applies to all regimes. And because we're committed to continual investment, we have a strong longer-term pipeline too, including winter wheats," adds Gemma.

"The challenge is improving awareness of the business and maintaining momentum so that we can start to stand out as

Hyvido Neo



Hyvido varieties have delivered higher yields than their conventional feed barley counterparts for the past five years, says Mark Shaw.

By bringing a pipeline of innovative new traits through to market, Syngenta is promising to extend its existing portfolio of hybrid barley varieties to offer growers future-proofed solutions.

First introduced 21 years ago, Hyvido has become the recognised sub-brand behind varieties such as SY Kingsbarn, SY Nephin, SY Thunderbolt and more recently, SY Buzzard. But now it's time for phase two through the launch of Hyvido Neo.

According to portfolio manager for hybrid barley, Mark Shaw, the Hyvido range has come a long way since it was originally launched. "Hyvido began with a focus on high and stable yields but we've now learnt it delivers much more. Among the benefits of this hybrid vigour include excellent agronomics, grass weed suppression, heterosis underground, market flexibility and next generation traits.

"But undoubtedly yield is still important — in AHDB Recommended List trials, Hyvido varieties have

delivered higher yields than their conventional feed barley counterparts for the past five years," he comments.

Furthermore, as growers look to improve resource efficiency in the face of ever challenging growing conditions, hybrid barley has been shown to do 'more from less', explains Mark. "Trials undertaken by ADAS show that Kingsbarn and Thunderbolt offer significantly higher NUE than conventional varieties and we believe this characteristic will only grow in importance," he adds.

To build on this further, Syngenta is extending its Hyvido portfolio to launch a range of new traits in the guise of Hyvido Neo. Hybrid barley technical expert, Ben Urquhart, says Hyvido Neo is being split into short-, medium- and long-term breeding targets.

"Short-term we're focusing on plant viruses such as barley yellow dwarf virus (BYDV) and the lesser known wheat dwarf virus (WDV) in order to deliver broad-spectrum virus resistance. Then medium-term we plan to investigate seed-borne diseases such as smuts and bunts.

"Finally long-term, we're aiming to look to the future to address wider climate change-related challenges including water limitation, drought and heat stress, and salinity," he explains.

Ben has high hopes for the first Hyvido Neo launch — RL candidate variety, SY Kestrel, which offers the promised broad-spectrum virus resistance. "Kestrel has resistance against three of the BYDV isolates (-MAV, -PAV and -RPV), whereas previously in varieties such as Buzzard, it was only tolerance. In addition to this, although it's not such a problem for UK growers at the moment, Kestrel is the first UK variety to have WDV tolerance too.

"This is importance because we

having material worth backing."
Having achieved success
with RL-listed spring oat Merlin,
which Gemma says should be
number one across all of the
UK next year, it could be

argued that Cope Seeds has already proven that success is possible. "We just require that same success with a conventional cereal variety," she points out. ▶



Ben Urquhart says SY Kestrel offers significant benefits from its viral protection and is the next step up from SY Buzzard.

perceive WDV as an incoming threat due to its increasing prevalence in Europe," suggests Ben.

With Kestrel offering so much in terms of virus resistance, Syngenta is using the variety as an opportunity to further understand aphid behaviour and how BYDV interacts with Kestrel's genetics, working alongside the University of Nottingham.

"This will provide an indication of the variety's performance and the longevity of its traits. Initial findings suggest fewer aphids settle on Kestrel compared with the NIL variety — which is essentially Kestrel without the virus resistance.

"For growers, there are the wider benefits associated with no insecticide use — lower input spend and the opportunity to apply for SFI payments. It also removes any risk to beneficial insect populations that you might want to foster.

"Finally, having protection in-built from day one reduces spray window burden to create more flexibility," he explains.

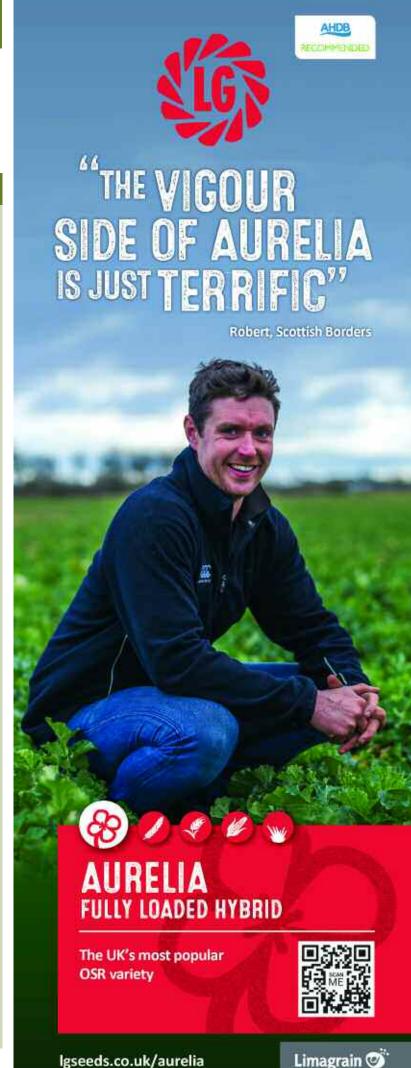
Agronomically, he believes Kestrel offers a lot. "It has a strong package – scoring 7s for rhynchosporium and

mildew resistance, with early maturity and a low lodging risk. But it also delivers on output achieving a UK treated yield score of 103%.

"I'm genuinely excited by this variety — it offers significant benefits from its viral protection and is the next step up from Buzzard which was already a solid starting point," concludes Ben.



Kestrel has resistance against three of the BYDV isolates (-MAV, -PAV and -RPV) and is the first UK variety to have WDV tolerance.



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Currently on the candidate list. Inys is the first 6 row hybrid from KWS. Inys was the highest yielding barley in both it's NL1 and NL2 trialling years. Its yield is very strong in the West ([114]%), with high yields in the East (109%) and North ([106]%) too.

Coupled with a high untreated of [93]%, Inys is a step up in yield from all current hybrid barley varieties. It has a good all round disease profile and is early to mature, making it an ideal entry for oilseed rape. It has shown no lodging on the 2 year NL report 2023 and low levels of brackling (7%) compared to other hybrids.

*INYS is a RL candidate variety - all data taken from Winter barley NL 2-year report 2022-2023.

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Everlong is a Group 4 spring wheat which is now on the AHDB's Recommended List and boasts the highest treated yield (107%).

► with a complete package," says Gemma.

"Among its benefits include a wide drilling window which makes it a strong contender whether that's as a true spring wheat or as a late-drilled autumn planting. We know it performs well in low-input scenarios and can be used within organic regimes."

According to the AHDB's variety comments, during three years of testing, Everlong has shown no major weaknesses in disease resistance and has high resistance to yellow rust, brown rust and mildew (based on limited data), as well as being relatively early to mature.

And while the variety has been positioned as a Group 4 feed wheat, in Austria where the genetics were developed, Everlong is being grown for milling, comments Gemma.

Perhaps most attractive to conventional growers with its broad appeal will be German-bred Aretha — a winter barley which Gemma says is truly unique. "It offers high yields across the UK but is the earliest to mature of any winter barley currently available on the market.

"It's stiff yet offers tall straw which we know appeals to livestock/mixed farmers. It also has both Type 1 and Type 2 barley yellow mosaic virus (BaYMV) resistance for robust control, so has the potential to really stand out," she explains.

Genetic diversity

Because Aretha has been bred in Germany, Gemma says the variety is bringing further diversity to the current genetic pool available, to help mitigate the risk of resistance and 'breakdown of genetics'. Aretha (STRG 283/18) is currently a candidate variety.

With interest in pulses increasing, the final variety in the immediate pipeline from Cope Seeds is white pea, Marler. "Marler promises exceptional performance as the highest yielding white pea of any listed or candidate variety. With consistent performance across various sites and good resistance to downy mildew, it's set to make its mark in the spring of 2026," explains Gemma.

As well as bringing valid new material to growers, she says these varieties also signify a change in direction for Cope Seeds. "We really believe in the genetics we're bringing over to the UK — we exist as a company to offer choice to all growers, not just organic.

"However, we'll continue to service that specific segment of



Ted Williams believes the days of 'barn fillers' are over due to increasingly expensive crop inputs.

Providing a different perspective on seed choice is Agrovista with Group 4 winter wheat Mindful, part of the company's exclusive range of wheat and barley varieties.

Mindful offers a sound combination of disease resistance ratings, high specific weight and consistent yield performance across differing regions, back cropping and drilling dates, says arable seed product manager, Ted Williams.

"But it's not just a good variety, 10% of seed sale profits go to farming mental health partner charities — FCN and RSABI — which is particularly relevant in a season like we're experiencing," he continues. "Agrovista is striving to do the right thing by growers in every way to give back to them where we can."

In terms of disease scores, Mindful offers an 8 for mildew with a respectable 6 for yellow rust and 6.3 for septoria.

Top performer

As for performance, Mindful achieved the top mean yield across Agrovista's AgX trial sites in 2021 and 2022 at both extremes of the sowing window. Drilled in September 2022 it produced 14.89t/ha; late sown in November the same year it gave 15.44t/ha.

"That said, the days of 'barn fillers' are over," comments Ted. "Crop inputs are becoming increasingly expensive so having a portfolio of varieties to meet the requirements of an individual farm and its associated agronomics is important.

"For the farmer, this means choosing varieties with complete packages that can provide more flexibility in drilling dates such as Mindful," he says. ■



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