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GatePost

FROM THE BREEDER | Limagrain Field Seeds

Perfect fit for Regen System

RON GRANGER
Arable Technical Manager

A large estate in the northeast of England, has turned to wheat variety LG Typhoon as part of its drive to build a more sustainable regenerative cropping system.

The in-house farming operation of County Durham-based Raby Estates, began conversion to direct drilling in 2018 and is striving to reduce the use of artificial inputs where possible, without compromising on the quality and quantity of crops produced.

"We're trying to move away from growing high input varieties, so are primarily looking for those that offer a robust disease package, good standing power and suitability for our direct drilling system," according to farm manager Philip Vickers.

"Direct drilling in northern England is not something you want to be doing into November, so I also look for varieties that suit the early drilling slot. From what we've seen so far, **LG Typhoon** seems to fit our requirements well."

Strong performance

In 2022, the farm grew around 32 ha (80 acres) of **LG Typhoon**, alongside several other varieties, but Mr Vickers has been so impressed with its agronomics, ease of management and yield performance, that he has increased this to 100 ha for 2023/24.

The **LG Typhoon** averaged an excellent 9.4-9.6 t/ha.

"Agronomy-wise, **LG Typhoon** was problem-free. It established quickly in the autumn, got away well in the spring, and was relatively early to harvest, tight behind Graham."

Robust disease profile

Strong Septoria resistance is a must-have for all winter wheat varieties grown on the farm, as the disease remains the number one yield-robber in high pressure seasons.

With a Septoria rating of 7.2, backed up by a combination of genetics that are different to those in other RL varieties, **LG Typhoon** has a distinct advantage over others.

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Perfect fit for regen systems

LG Typhoon offers attributes that make it ideally suited to strip tillage/ direct drilling, regenerative crop establishment systems, that often feature wider rows

- High yielding, consistent and resilient variety, that delivers across seasons and rotations
- A prostrate growth habit with a slower plant development through the autumn and winter months
- High tillering variety that utilises the space from wider rows often associated with direct-drilling
- Very good disease resistance profile reflected in its high untreated yield
- Exceptional disease ratings for yellow rust (9) and Septoria (7.2)
- Good standing
- OWBM resistance
- Excellent performance as a second wheat

LG Typhoon is a high yielding, consistent and resilient variety, that delivers across seasons and rotations.

LG BEOWULF BUCKS THE TREND

RON GRANGER
Arable Technical Manager

LG Beowulf - the highest yielding wheat on the 2024-25 AHDB Recommended List

Ron Granger shares his views on what the variety offers and where it fits on farm:

When breeders cross two varieties, we know what we want to accomplish with regards to the complimentary attributes both parent varieties offer – genetically and agronomically - in the progeny. **LG Beowulf** reflects this approach, as a cross between two very successful commercial varieties; (Costello x Gleam).

Recently, we have seen several very high yielding wheats added to the RL but unfortunately, although gaining commercial market share, they have not offered the all-round desirable agronomic package that many growers wish for in a perfect world.

LG Beowulf bucks the trend, offering the highest UK treated yield potential sitting at 106.2%, and one of the best agronomic packages available, combined with great flexibility within the rotation – it's a fantastic package!

High yields are important for maximising profit, but more than this, a grower needs to know that these yields will be delivered consistently every season; and this is exactly what **LG Beowulf** does.

It performs extremely well both as a first wheat and in the more testing second wheat situation and is suitable for all soil types. However, **LG Beowulf** should be grown on more moisture retentive soils to achieve maximum yield potential, as there are better variety ideotypes for the more testing, lighter, drought prone soil situations.

LG Beowulf offers a very good disease resistance profile, especially for the key disease challenges of yellow rust (9) and *Septoria tritici* (6.7).

The variety also delivers a very high untreated yield (91%); a consequence of its superb disease resistance in combination with its straw strength. **LG Beowulf** offers very good straw strength – combining a rating of 8 untreated, with an 8 rating with PGR treatments applied.

Offering Orange Wheat Blossom Midge resistance is an important benefit, especially for growers in the more drought prone regions of the southeast. It's a genetic IPM offering that should not be underestimated.

LG Beowulf can be drilled early and onwards through into the very late drilling slot, if the season dictates, giving growers a security and flexibility of drilling date, that not all varieties exhibit.

The variety does have a slightly later maturity, but widening the harvest date is useful as an insurance against erratic weather patterns. Spread your risk on farm by having early maturing varieties alongside later maturing ones.

LG Beowulf has the benefit of a high specific weight combined with a high Hagberg. A high specific weight is one of the best characteristics to ensure high yield potential is maintained in erratic, seasonal weather conditions.

"There is no such thing as a perfect variety, however, **LG Beowulf** comes close!" It offers a comprehensive agronomy package along with very high yield potential in the hard feed wheat sector; desirable characteristics both on-farm and for the market.

> "There is no such thing as a perfect variety, however, **LG Beowulf** comes close!"

WINTER BARLEY SUCCESS WITH SISTER VARIETIES

RON GRANGER
Arable Technical Manager

Limagrain sister varieties; LG Caravelle and LG Capitol, dominate the 2-row feed winter barley AHDB 2024/25 Recommended List.

LG Caravelle performed very well last harvest on the Yorkshire Wolds, for Mark Ullyott of Langtoft Grange Farm near Driffield, and he was extremely pleased with yields between 8.5-9.5 t/ha.

"We have grown seed crops of barley for over 10 years, and **LG Caravelle** must be the best we have seen," he says. "It is always interesting growing a new variety for the first time to see how it performs, and we are very pleased with **LG Caravelle** and will grow it again. If we could, we would put all of our acreage down to the variety," says Mark.

> We have grown seed crops of barley for over 10 years, and **LG Caravelle** must be the best we have seen.

MARK ULLYOTT

Ron comments 'LG Capitol Backs up Successful Genetics'

"LG Capitol backs up the successful genetics of **LG Caravelle**, in that it is a sister line selected from the same initial cross.

LG Capitol has shown similar very high yield potential, sitting on 106% for the UK and 107% in the east, and importantly, it has shown this high consistency of performance over regions and seasons.

This trait, combined with the desirable agronomic attributes of good standing, a good disease resistance profile and good grain quality, makes it a great addition to the new RL and it will be of interest to all barley growers."

AUTUMN SOWN SFI OPTIONS

JOHN SPENCE
Forage Crops
Product Manager

Many growers are now getting to grips with the Sustainable Farming Incentive (SFI), and whilst most actions requiring a seed purchase are likely to be sown in the spring, many of the more profitable actions can also fit an autumn sowing window. The four actions below are likely to feature in most agreements:

AHL2: Winter bird food on arable and horticultural land

AHL2 has proved to be a hugely popular action this spring, as growers have looked to make the most of the attractive payment rate (£853/Ha) and later sowing period. This action can also be autumn sown, but there are more considerations at this timing, to ensure the terms of the agreement are met. The primary aim of the action is to produce a supply of small seeds from late autumn until late winter. It may be tempting to establish a mixture this autumn, with the view to following with a spring crop next year, but an autumn sown mixture of any species is highly unlikely to produce sufficient seed in such a short time and so will not achieve this aim. Any mix sown at this time effectively needs to last 18 months, with flowering plants in the summer of 2025 that produce seed in the winter of 2025/26.

We have two mixtures well suited to autumn sowing; **Magnet** and **Bumblebird**. **Magnet** is an economical mix based around winter triticale and linseed, with flowering brassicas and phacelia. **Bumblebird** offers more benefits with a greater range of seed-bearing species and the inclusion of legumes such as red clover, crimson clover and vetch, which will also fix nitrogen for the subsequent crop.

> “AHL2 has proved to be a hugely popular action this Spring, as growers have looked to make the most of the attractive payment rate (£853/Ha) and later sowing period.”

IPM2: Flower-rich grass margins, blocks or in-field strips

Although not quite the highest paying option, at £798/Ha, **IPM2** has the potential to offer the highest net margin of any options suited to autumn drilling. The action is rotational but to maximise profitability and to ensure the aims are properly met, the chosen seed mix should ideally be down for the full three years of the agreement. Our **Flower-rich margin mixture** includes 15 native, UK produced wildflower species, combined with 7 species of slow growing amenity grasses, chosen to give the wildflowers the greatest chance of successful establishment.

AHL1: Pollen and nectar flower mix

AHL1 is another action with an attractive payment rate of £739/Ha. Our **Bee mix** is the product to chose to meet the aims of producing areas of flowering plants from late spring and during the summer months. As well as providing food for pollinators and encouraging natural pest predators, this mix has high levels of nitrogen fixing legumes and phacelia, which is a great soil conditioner. The possible drawback of this action is that opportunities to manage any potential problem weeds are limited. Growers hoping to reduce blackgrass populations for example, will likely find the rules on grazing and cutting too restrictive to successfully manage the weed.

NUM3: Legume fallow

NUM3 has a slightly lower payment rate than the others mentioned here, at £593/Ha, but it has some key benefits that potentially make up for the lower rate. Unlike AHL2, IPM2 and AHL1, where the maximum area entered into the actions is restricted to 25% of the farm, there is no area limit with NUM3. There is also greater freedom to cut the mix, to help prevent blackgrass from seeding, making this action preferable to AHL1 in high blackgrass situations. We have two mixture options for this action; **Legume 2** or **Legume 2 grass free**. Both contain a similar range of legumes to fix nitrogen, improve soil health and provide food for wildlife and pollinators, but the **Legume 2** contains 66% perennial ryegrass. The ryegrass within the mix helps build soil organic matter levels, but is also better able to compete with weed species and will help smother blackgrass, again helping to reduce populations. Both of these mixtures would be suitable if you choose to rotate the action each year, but the benefits to both soil and blackgrass suppression will be greater if the mix is kept down for 2 or 3 years (the duration of the agreement).

DOWNLOAD
LG Conservation & Gamecover Crops Guide

CONVISO® SMART SUGAR BEET VARIETIES

TIM RICHMOND
Product Manager UK and Ireland

The Limagrain portfolio of Betaseed sugar beet varieties continues to offer growers a strong range for consideration, on the new 2025 Recommended List.

BTS 1915 continues as the highest yielding variety on the RL, sitting with an adjusted tonnes mean yield of 102.2%. This consistency of high yield performance over many seasons, combined with a high sugar content and a very good disease resistance profile, has made it one of the most successful varieties grown on farm and it would appear that this is set to continue.

BTS 3610 has shown a good consistency of yield and again offers a security of performance around a high untreated yield; a reflection of its sound disease resistance. This is complimented by a high sugar content with good bolting tolerance, both in ESB and NSB situations.

BTS SMART 9485 continues to be a very competitive ALS herbicide package for those growers that have adopted or are adopting the system on farm for the first time. These newer ALS tolerant varieties are certainly a step up over the original varieties, offering higher yield potential combined with good disease resistance and bolting tolerance, both at early and normal sowing dates.

For growers considering CONVISO® SMART varieties, please scan the QR code to download our practical and informative brochure.

Betaseed’s unique proprietary seed treatment technology **UltiPro**, is now available in the UK on **BTS 1915** and **BTS SMART 9485**. Although a relatively new product in the UK, it is well-established both in Europe and across the USA and has been fully tested and approved by the BBRO in 3 years of independent trials.

ULTIPRO®

UltiPro is designed to help growers maximise their yields and profitability, by improving fast and homogenous germination with good seedling uniformity, enabling better competitiveness for plant development to combat environmental stresses - generally enhancing crop health and performance of their sugar beet crops.

SCLERO-FLEX SECURES OSR YIELDS

LIAM WILKINSON
Oilseed Rape
Product Manager

Liam Wilkinson introduces Limagrain's newest genetic trait, Sclero-flex, into its OSR breeding lines.

Sclerotinia stem rot is a significant disease of oilseed rape in the UK; and in some circumstances, can reduce yields by 50% or result in complete loss through plant death.

In spring, when soils are moist and warm (10°C+), sclerotia in the soil germinate, releasing airborne ascospores which land on OSR petals. Sclerotinia then develops as the petals fall and stick to the leaves or stems, assisted by further moisture.

The disease is fed by nutrition from the rotting petals and pollen, allowing penetration of the leaf cuticle, resulting in lesions. Then, stem lesions occur as the pathogen spreads, which reduces food and water supply to the canopy, induces premature ripening, and weakens stems to cause lodging.

Effective control of the disease relies largely on protectant fungicides that should be applied during mid-flowering before there is any significant petal fall. However, the fungicides only have a protectant role and have to be applied ahead of infection taking place.

Integrated Pest Management Foundations

Plant breeding remains the foundation of integrated pest management (IPM).

LG champions a 'control triangle' where effective disease management lies in a careful balance between cultural practices, responsible fungicide use, and refined plant genetics. This includes when combatting Sclerotinia.

Cultural control practices rely on widening the cropping rotation - so, only growing OSR once every five years, whilst being mindful of where other Sclerotinia hosts fit into the rotation. Effective weed management is also important.

As for responsible fungicide use, action starts by using relevant Sclerotinia alert tools such as that hosted by the AHDB. It's then a case of understanding the crop's growth cycle and not using fungicides curatively, due to them having no activity once infection has taken hold.

Sclerotinia sprays can coincide when on-farm activity is high and there's greater pressure on sprayer hours. This makes it difficult to hit those optimum timings.

Sclerotinia is the reason given for almost 30% of total fungicide use in the crop. Against this background, the weather has become less predictable.

In recognition of this increasing threat, a new breeding tool has been identified by Limagrain to help combat the disease. Known as Sclero-flex, this exciting quantitative tolerance to Sclerotinia completes the Sclerotinia control triangle, joining cultural methods and fungicidal chemistry.

> "Limagrain OSR varieties with the new technology, have shown an average reduction in Sclerotinia incidence of 57%, and a reduction in severity of 44%."

Limagrain OSR varieties with the new technology, have shown an average reduction in Sclerotinia incidence of 57%, and a reduction in severity of 44%.

How does Sclero-flex work?

It's based on tolerance rather than resistance. Sclero-flex is the collective result of many smaller genes which all demonstrate tolerance. This ensures a variety will be durable and sustainable and less likely to break down in the future.

STEM HEALTH

The focus on developing new traits beyond existing scope has been coined as Limagrain's seventh generation of hybrids - bringing varieties to the market which offer a stacked portfolio for stem health, alongside the standard pod shatter, TuYV and RLM7 resistance traits, which growers have come to expect.

LG Armada is the first seventh generation hybrid to be released, boasting the new Sclero-flex technology. It's also the highest yielding OSR variety on the AHDB Recommended List.

Breeder's Perspective Q&A

Maeve O'Rourke - Junior OSR Breeder

Q What diseases do you see as being the biggest threat to UK OSR crops in the coming seasons?

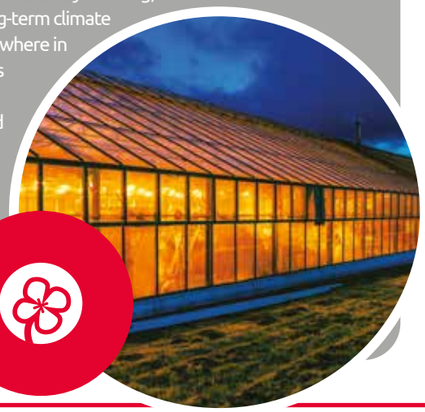
I think it's still going to be cabbage stem flea beetle that will be our biggest challenge rather than disease. LG has a huge selection of different varieties with robust resistance against common UK diseases, with dozens of strong varieties in the immediate pipeline, and international research behind upcoming challenges. However, fighting CSFB is a unique and hard challenge for breeders and farmers alike.

Q How important is the UK to the European breeding programme?

The UK is extremely important. Almost every parent line in the last two decades has begun at our head office in Rothwell, Lincolnshire and our trials network is so varied (from Aberdeen to Dorset and everywhere in between) that we have a great chance of spotting any future issues for disease and any stand-out varieties, not just for the UK but all of Europe.

Q As a breeder, what is your focus for the future?

Focusing on different sources of resistance. As breeders, we know we have a limited lifespan for all resistances because diseases are constantly evolving, and the changing long-term climate conditions will affect where in the UK these diseases start to occur. We are always looking to find new and novel types of resistance, even if they aren't useful in 2024, they might be crucial in 2034.



LG'S SUMMER DEMO DAYS

LG has a range of summer open days across the UK, to present their demo trials, alongside Limagrain's technical experts who will be providing all the latest information on new and existing varieties.

As well as the LG experts, each event will feature industry experts from within the agricultural sector, providing technical information on an array of topics such as fertiliser & micronutrients, agrochemicals, SFI's and more. On top of this, we will again be running the Moisture Meter Clinic, which has been a farmer favourite in past years.

WOOLPIT	18th June
ROTHWELL	9th July
PERTH	17th July

SCAN TO REGISTER

LG's summer demos will have a wide assortment of winter wheat varieties to show, including Limagrain's No.1 highest yielding variety; **LG Beowulf**, and a taste of Limagrain's up and coming RL Candidates and NL2 offerings. Alongside this, they will also be displaying commercial competitor varieties, with both untreated and treated plots.

Rothwell and Woolpit will be showing all varieties in the Limagrain winter barley portfolio, including the 2 highest yielding; **LG Caravelle** & **LG Capitol,** plus exciting new BYDV tolerant RL Candidate, **LG Carpenter**.

BASIS/NRoSO points will be available for each demo day.

If you are thinking of growing an LG variety, have an interest in learning more, or have any questions for our experts, please sign up to register for one of our open days, at **https://bit.ly/3Uya2Li**

BASIS and NRoSO Points

By reading this issue of LG GatePost, you can claim BASIS and/or NRoSO points. To do so, go to bit.ly/3J79gOS

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