syngenta

# Variety Guide

## 2024

Let's go and grow together

syngenta

# Who We Are: Syngenta

**Syngenta is one of the world's leading agricultural companies, consisting of Syngenta Crop Protection and Syngenta Seeds.**

Our goal is to help safely feed the entire world while caring for the planet. We aim to enhance the **sustainability, quality,** and **safety** of agriculture through cutting-edge science and innovative industry solutions. Our technologies enable millions of farmers worldwide to use limited agricultural resources more efficiently. Syngenta Crop Protection and Syngenta Seeds are divisions within the Syngenta Group. In over 100 countries, we are working to transform the cultivation of agricultural crops. Through partnerships, collective efforts, and our **"Plan for Success,"** we strive to accelerate innovation for farmers and in the interest of nature, directing joint efforts towards the development of **sustainable agriculture**, the protection of human health, and safety.

**90+**
Countries Worldwide

**87**
Production & Sales Centers

**116**
Research Bases

**30,000**
Employees

# Meet Your Seeds Technical Experts

**Ben Urquhart**
Hybrid Barley
Technical Expert

**Rob Jackson**
Malting Barley
Technical Expert


**Matthew Bull**
Wheat Technical Expert
& Seeds Technical Lead

**Connect with us:**

To claim BASIS and NRoSO points for reading this guide, please scan the QR code.

**Ask us a question or give us feedback, we would like to hear from you.**

We hope this guide provides you with useful information on the best variety for your farm and how to maximise its potential. If you have a question for one of our experts, you can email us:

? product.technical_enquiries@syngenta.com

# Syngenta Seeds UK: Sites & Events


## Visit us at events this year

1 Cereals Event
2 Arable Scotland
3 Syngenta Rougham Innovation Centre
4 Syngenta Banbury Innovation Centre
5 Syngenta Newark Innovation Centre
6 St Boswells Open Day
7 Balgonie Open Day
8 Kilham Innovation Centre
9 Syngenta Stafford Ryegrass Site
10 Syngenta & Robin Appel Malting Barley Site

## Syngenta Sites

1 Fulbourn Commercial Offices
2 Jealott's Hill Research Centre
3 Market Stainton Barley Breeding Station
4 Whittlesford Wheat Breeding Station

# Contents

# Spring Barley

## Why Choose Spring Barley?

**Spring barley is the second largest arable crop in the UK. The majority of the UK spring barley crop enters the malting chain, although there is a significant area grown specifically for feed.**

**Including spring barley in a farm rotation offers many additional benefits for growers:**

- Helping to ease the autumn workload
- Spread the cereal harvest
- Reduce weather-related risks
- Help with autumn germinating grass weed control
- Improve farm cash-flow

A key consideration when looking at spring barley varieties is consistency and the ability to meet specifications. Recent variable weather patterns have brought challenges not just for winter drilled crops, but for spring drilled crops as well. It is clear that some spring barley varieties are more resilient and consistent under changing conditions.

Syngenta have been breeding barley varieties for over 40 years and can offer expert advice to help you get the best from your crop.

# Know Your Malting End Market


**With malting spring barley, it is crucial to know your end market and grow the variety accordingly. Proximity to an end-user and the specification required are both key factors when choosing and managing your variety.**

Map source
www.ukmalt.com

# End Use Markets Specifications

| | Brewing Use | Malt Distilling | Grain Distilling | Feed |
|---|---|---|---|---|
| What's it for? |  |  |  |  |
| How big is this market? | 270,000 ha | 400,000 ha | 10,000 ha | 120,000 ha |
| Main geographic region | UK (mainly England) | Scotland, Northern England and East Anglia | Scotland and some areas of England (check locally) | West and North of UK |
| What do end markets need? | 1.6-1.75% N (up to 1.8% N for export)<br>94% screenings over a 2.25 mm sieve (England) | <1.65% N Non-GN<br>90% screenings over a 2.5 mm sieve (Scotland) | Over 1.85% N Non-GN<br>90% screenings over a 2.5 mm sieve (Scotland) | High yield with good specific weight |
| Nitrogen programme to achieve this | 2 splits Nitrogen | Lower total Nitrogen, 1 to 2 splits | High total Nitrogen, later applications | Normal practice following RB209 |
| Syngenta Varieties with Full Market Approval | **LAUREATE** | **LAUREATE** | **FAIRING** | **SY SPLENDOR**<br>**WAGGON** |

## Malting Spring Barley

**Your location within the UK will be a big driver for your variety and market choice – with some growers having the choice of which market to grow for.**

Malt distilling is the largest market for spring barley – and used to be focused in the North, but now we see significant volumes being grown and used in England too, alongside the traditional brewing and export volumes.

Choosing a dual-purpose variety (one that is approved for both brewing and malt distilling) gives growers choice on which market to grow for and may open up more marketing opportunities.

# An Overview of Our Spring Barley Varieties

## Malting Spring Barley

**Laureate** Spring barley

The No. 1 spring barley in the UK with high yields and FULL MBC Approval for brewing and malt distilling. LAUREATE has an excellent overall agronomic package with strong maltster support.

**Fairing** Spring barley

FULL MBC Approval for grain distilling, with contracts available in this market. Very early ripening and excellent *Rhynchosporium* resistance makes FAIRING ideal for both the Scottish and English grain distilling markets.

**SY Tennyson** Spring barley

Very high yielding spring malting barley with Provisional Approval for both brewing and malt distilling. SY TENNYSON has outstanding malting quality for both major markets in the UK and represents the next generation of malting barley.

**SY Signet** Spring barley

High yielding spring malting barley with consistent performance across years and strong farmer focused agronomics. SY SIGNET has very high Hot Water Extract desired by the brewing industry.

## Feed Spring Barley

**SY Splendor** Spring barley

A FEED variety, SY SPLENDOR was originally bred as a malting barley, it brings consistently high yields across all regions, and excellent specific weight.

**Waggon** Spring barley

A popular spring feed barley variety in Scotland, due to its excellent straw strength, straw yield and very early maturity. WAGGON remains a firm favourite.

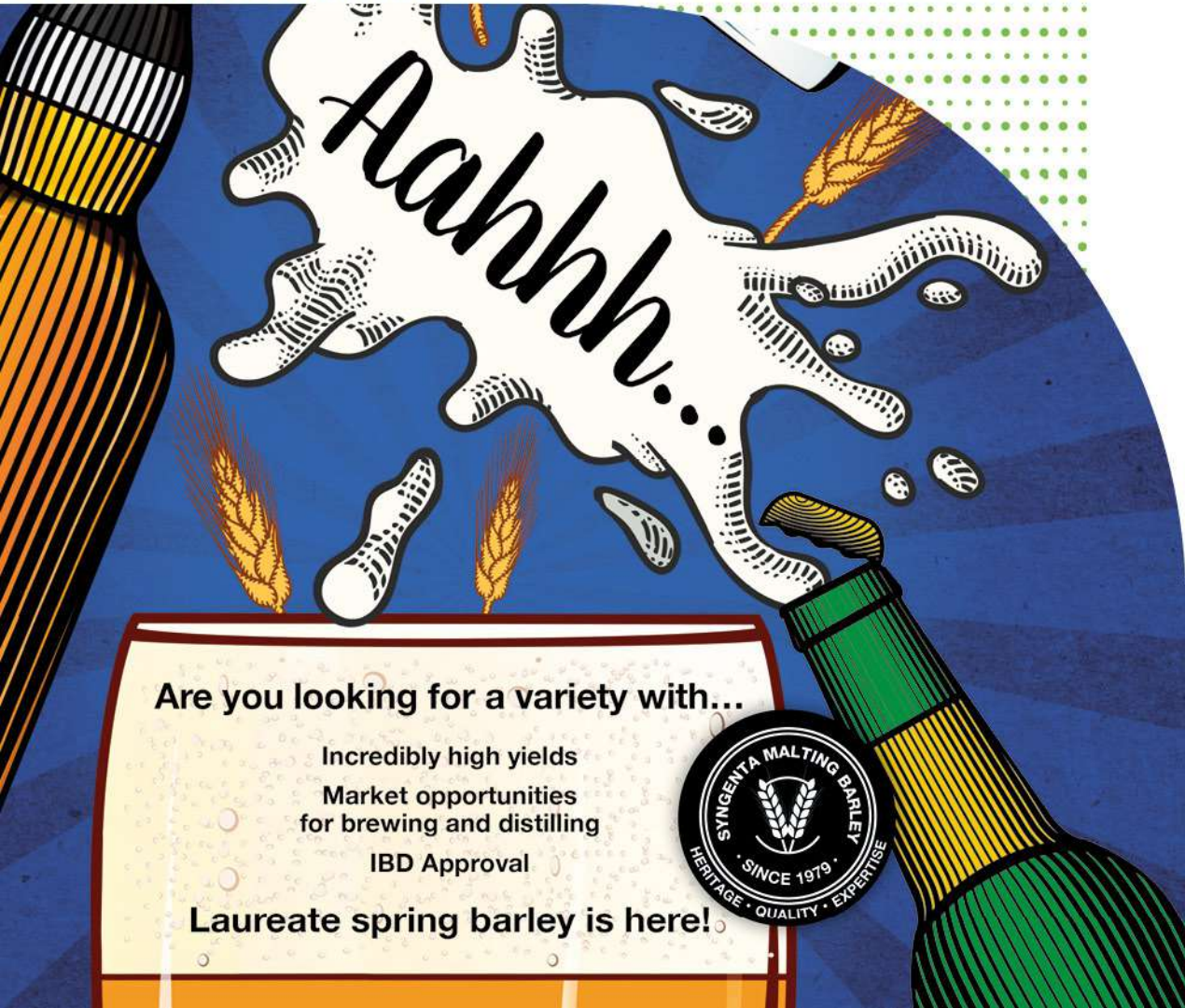
# LAUREATE

SANETTE X CONCERTO

## The No. 1 spring barley choice for the UK

### LAUREATE at a glance

- The biggest spring malting barley in the UK
- Full MBC approval for brewing and malt distilling
- Accepted by all UK maltsters
- Consistent yield and quality



**LAUREATE is the most popular spring malting barley grown in the UK making up 64.1% of maltster purchases in Scotland and 52.6% in England from 2022 crop.**

## Regional Treated Yield Performance Map


- LAUREATE is a clean variety with strong disease resistance and high untreated yields
- It has good resistance to brackling and moderate maturity
- Importantly LAUREATE has good grain quality and performs consistently in the maltings and on-farm which is why it is in such high demand

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 101 |
| Untreated Yield | 92 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | 9 |
| Brown Rust (1-9) | 5 |
| *Rhynchosporium* (1-9) | 7 |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | 6 |
| Resistance to brackling (1-9) | 8 |
| Straw height without PGR (cm) | 72 |
| Ripening (days +/- RGT Planet) | +1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 67.2 |
| Screenings (% through 2.25 mm) | 1.3 |
| Screenings (% through 2.5 mm) | 3.2 |
| Nitrogen Content (%) | 1.49 |

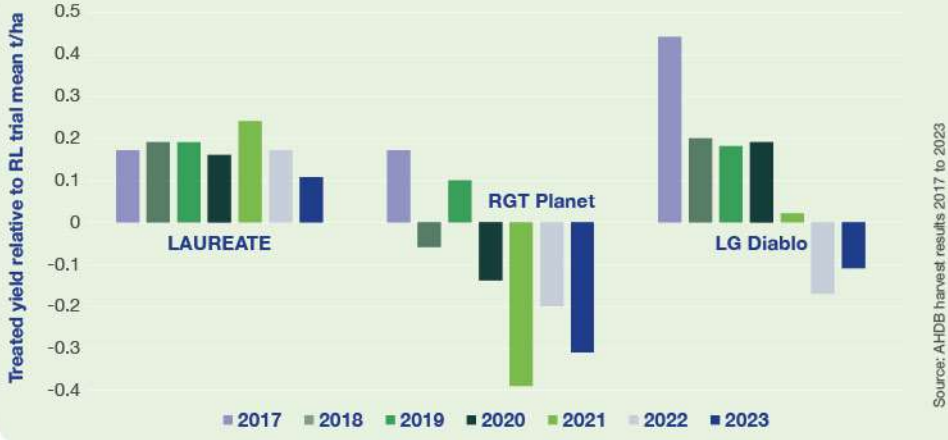
| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 313.4 |
| Predicted Spirit Yield | 433.5 |

## One reason for the growing popularity of LAUREATE is its consistency both on farm and through the maltings.

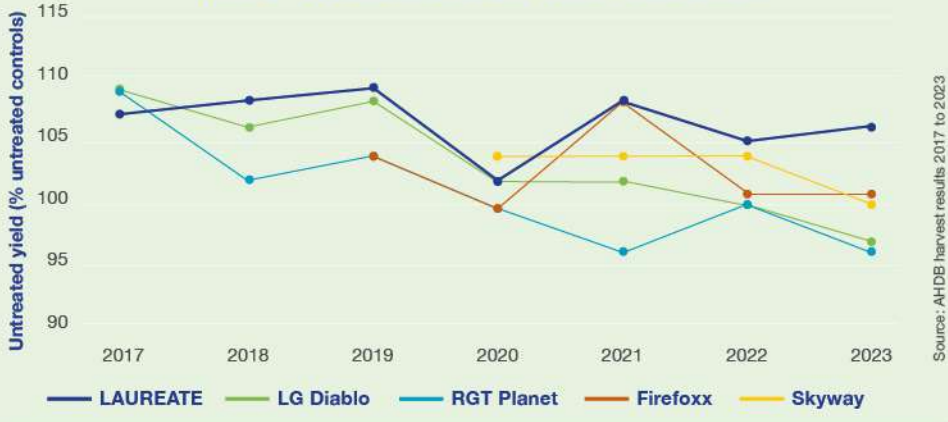
Since joining the AHDB Recommended List in 2016, LAUREATE has continued to yield competitively, while some of its main rivals of a similar age have started to decline and now yield below LAUREATE in Official Trials.

LAUREATE has a strong consistent yield each year, so it still competes favourably with newer varieties in both brewing and malt distilling sectors.

### The consistency of LAUREATE is demonstrated across seasons




### LAUREATE also has a track record of high, reliable untreated yields - even in the face of newer competition



## LAUREATE Nitrogen Advice

**LAUREATE can be grown for both brewing and malt distilling, but these two markets require a different % grain N in order to make either beer or whisky.**

It is important to know which market your grain is going to, so you can tailor your nitrogen inputs and achieve the right specification for the market you are growing for.

### LAUREATE for Brewing

- Aim for a % grain N of **1.6-1.75%**
- **2 splits of nitrogen** will help achieve higher % N


Source: SYN N trials 2019-2023 (mean 14 sites across England for yield, 12 for grain N%)

### LAUREATE for malt distilling

- Aim for a % grain N of **below 1.65%**
- **100% application of nitrogen** in the seedbed will help keep the grain N lower


Source: SYN N trials 2019-23 (mean 14 sites across Scotland)

# FAIRING

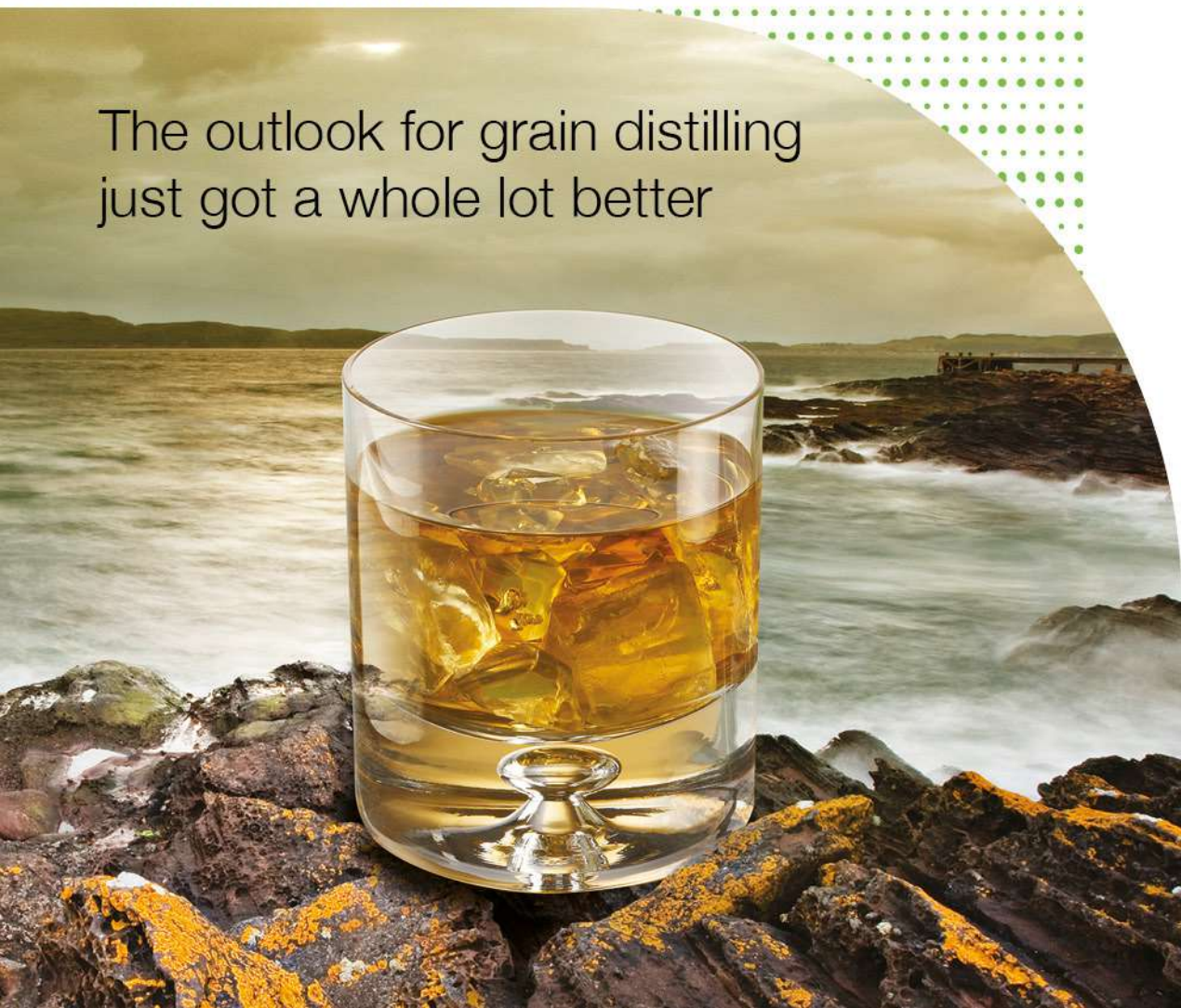
409-201 X 144-02-4

## The ONLY spring malting barley with MBC Approval for grain distilling

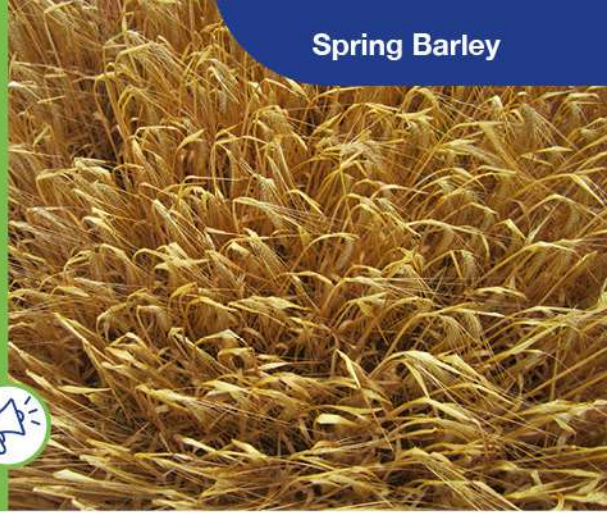
### FAIRING at a glance

- Earliest maturing variety on the AHDB Recommended List
- The highest resistance rating to *Rhynchosporium* available
- Delivers very high nitrogen
- Fantastic grain quality with high specific weight and low screenings

The outlook for grain distilling just got a whole lot better



Unlike other varieties FAIRING was **specifically bred for the grain distilling market** and contracts are available in both Scotland and some areas of England this year.



## Regional Treated Yield Performance Map


FAIRING is the only variety on the Recommended List to have a 9 rating for *Rhynchosporium* resistance. It also has the earliest maturity of any variety!

These attributes make FAIRING well suited to Scottish growing conditions.

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 91 |
| Untreated Yield | 82 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | 7 |
| Brown Rust (1-9) | 5 |
| *Rhynchosporium* (1-9) | 9 |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | 8 |
| Resistance to brackling (1-9) | 8 |
| Straw height without PGR (cm) | 72 |
| Ripening (days +/- RGT Planet) | -2 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 68.8 |
| Screenings (% through 2.25 mm) | 1.0 |
| Screenings (% through 2.5 mm) | 2.7 |
| Nitrogen Content (%) | - |

## Variety Maturity Ratings

**FAIRING has been the earliest maturing variety on the RL ever since it was Recommended.**

This early maturity is key in areas of Scotland to enable timely harvest before wet weather prevents combining and starts to impact quality.

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|
| BELTER | | | | | | | | | 2 |
| CADIZ | | | | | | 1 | 1 | 0 | |
| CB SCORE | | | | | | | 1 | 1 | 1 |
| CHANSON | | -1 | -1 | 0 | | | | | |
| CONCERTO | 0 | 0 | 0 | 0 | 0 | | | | |
| COSMOPOLITAN | | | | 1 | 0 | 1 | | | |
| DIVINER | | | | | | | | 1 | 1 |
| FAIRING | -2 | -2 | -2 | -1 | -2 | -1 | -2 | -2 | -2 |
| FAIRWAY | | | | | -1 | 0 | -1 | | |
| FIREFOXX | | | | | 0 | 1 | 0 | 0 | 0 |
| FLORENCE | | | | | | | | 0 | |
| HACKER | -1 | -1 | -1 | 0 | | | | | |
| HURLER | | | | | | | | 1 | 1 |
| ICONIC | | | | | 0 | 0 | | | |
| JENSEN | | | | | | | 1 | | |
| KWS CURTIS | | | | | | | | 1 | |
| KWS IRINA | -1 | -1 | 0 | 0 | | | | | |
| KWS SASSY | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| LAUREATE | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LG AQUARIUS | | | | | | | | | 1 |
| LG DIABLO | | | 1 | 2 | 1 | 2 | 2 | 2 | 3 |
| MALVERN | | | | | | | 1 | 1 | |
| NECTAR | | | | | | | | | 2 |
| NOS GAMBIT | | | | | | | | | 1 |
| NOS MUNRO | | | | | | | | | 2 |
| OLSEN | | | | | | | | | 2 |
| OLYMPUS | 0 | 0 | 1 | 1 | | | | | |
| OVATION | 0 | 0 | 0 | 1 | | | | | |
| PROPINO | -1 | -1 | -1 | 0 | -1 | 0 | | | |
| PROSPECT | | | | | 0 | 1 | 1 | 1 | |
| RGT ASTEROID | | | 1 | 1 | 1 | | | | |
| RGT PLANET | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SCHOLAR | 0 | 0 | 1 | 1 | | | | | |
| SIENNA | 0 | 0 | 1 | 1 | 1 | 1 | | | |
| SKYWAY | | | | | | 1 | 0 | 1 | 0 |
| SPINNER | | | | | | | 1 | | |
| SUN KING | | | | | | | | 1 | |
| SY SIGNET | | | | | | | | 1 | 2 |
| SY SPLENDOR | | | | | 1 | 2 | 1 | | |
| SY TENNYSON | | | | | | | | 1 | 2 |
| SY TUNGSTEN | | | | | 1 | 1 | 1 | | |
| WAGGON | -2 | | | | | | | | |

Source: AHDB Recommended Lists 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024

## End Markets

**FAIRING is not as high yielding as LAUREATE but grows especially well in Scotland and areas of England where grain distilling contracts are available.**

It delivers very high nitrogen which helps it to meet the grain distilling contract specifications (typically above 1.85% N). It also has a very high specific weight. FAIRING has contracts available for harvest 2024, check locally.

**FAIRING has innately higher grain nitrogen which makes it much more likely to achieve grain distilling contract specifications in low grain nitrogen years**


| Treatment | Seedbed (kg N/ha) | GS12 (kg N/ha) | GS30-31 (kg N/ha) | Total N (kg N/ha) |
|---|---|---|---|---|
| N1 | 60 | 60 | 0 | 120 |
| N2 | 60 | 0 | 60 | 120 |
| N3 | 60 | 110 | 0 | 170 |
| N4 | 60 | 50 | 60 | 170 |

Source: Syngenta nitrogen trials 2023 (3 locations)

# SY TENNYSON

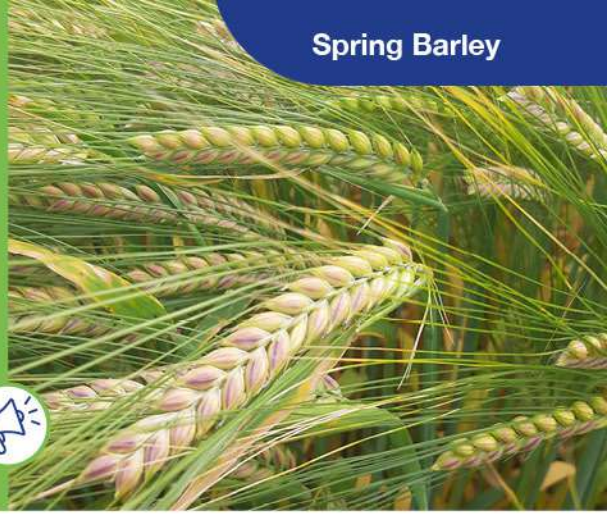
SY SPLENDOR X LG DIABLO

## The next generation of malting barley

### SY TENNYSON at a glance

- Very high yielding spring malting barley
- Provisional Approval for both brewing and malt distilling
- Exceptional quality for both major markets in the UK

**SY TENNYSON has Provisional Approval for both malt distilling and brewing. It is currently undergoing pilot testing as part of the MBC testing process, with the aim of achieving Full Approval by June 2024.**



## Regional Treated Yield Performance Map


SY TENNYSON offers outstanding malting quality, with the highest Hot Water Extract (HWE) and Predicted Spirit Yield (PSY) figures of any variety on the 2024 AHDB Recommended List. HWE and PSY are the key quality parameters used by the brewing and malt distilling industries respectively to determine alcohol yield.

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield* | 102 |
| Untreated Yield* | 88 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | [8] |
| Brown Rust (1-9) | 4 |
| *Rhynchosporium* (1-9) | 5 |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | [7] |
| Resistance to brackling (1-9) | 7 |
| Straw height without PGR (cm) | 72 |
| Ripening (days +/- RGT Planet) | +2 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 66.5 |
| Screenings (% through 2.25 mm) | 1.4 |
| Screenings (% through 2.5 mm) | 3.2 |
| Nitrogen Content (%) | 1.44 |

| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 315.5 |
| Predicted Spirit Yield | 436.8 |

*Yield data for the variety SY TENNYSON, under test for brewing and malt distilling, was previously not included in Harvest Results for 2023. Seed used for trials was infected with high levels of seed-borne net blotch, leading to high levels of foliar disease in the field which reduced yields in some trials. However, having reviewed the data the RL Board have decided to reinstate the data.

# SY SIGNET

LG DIABLO X SY SPLENDOR

## An exciting option for the brewing market

### SY SIGNET at a glance

- High yielding spring malting barley with consistent performance across years
- Strong farmer focused agronomics
- Very high Hot Water Extract

Introducing our **new** Spring Barley

# SY SIGNET

## Ring the changes

**SY SIGNET is currently undergoing registration in 8 separate EU countries. The wide adaptability of SY SIGNET was evident from the beginning, and should hopefully allow the development of a strong export market for the variety.**

## Regional Treated Yield Performance Map


SY SIGNET has Provisional Approval for brewing. It will undergo pilot testing in 2024/25 as part of the MBC testing process with the aim of achieving Full Approval by June 2025.

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 102 |
| Untreated Yield | 91 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | [8] |
| Brown Rust (1-9) | 5 |
| *Rhynchosporium* (1-9) | 5 |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | [7] |
| Resistance to brackling (1-9) | 8 |
| Straw height without PGR (cm) | 73 |
| Ripening (days +/- RGT Planet) | +2 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 67.2 |
| Screenings (% through 2.25 mm) | 1.5 |
| Screenings (% through 2.5 mm) | 3.5 |
| Nitrogen Content (%) | 1.46 |

| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 314.2 |
| Predicted Spirit Yield | - |

# Feed Spring Barley

**Approximately 20% of the spring barley market is purely for feed, and it remains a popular choice for growers that have livestock to feed, where grain and straw remain equally important.**

## Key variety attributes for feed barley:

- **Consistent yield**
- **Grain quality and starch content**
- **High tillering and good straw yield for bedding**
- **Grass weed suppression characteristics**

Syngenta have specific varieties which fit into the feed category, each with different characteristics to suit different situations.

### SY Splendor
Spring barley

Now a FEED variety, SY SPLENDOR was originally bred as a malting barley, it brings consistently high yields across all regions, and excellent specific weight.

### Waggon
Spring barley

With fantastic tillering ability and very high straw yields, plus very early ripening, WAGGON is a firm feed favourite in Scotland.

## Key Stats

| | SY SPLENDOR | WAGGON |
|---|---|---|
| Yield (%) | 102 | 99 |
| Regional Suitability | UK | UK but popular in Scotland |
| Specific Weight (kg/hl) | 68.1 | 67.4 |
| Resistance to Lodging | 7 | 7 |
| Resistance to Brackling | 9 | 8 |
| Mildew | 9 | [9] |
| Brown Rust | 3 | 5 |
| *Rhynchosporium* | [4] | 3 |
| Ripening | +1 | -2 |
| Latest AHDB RL Data | 2022 | 2016 |

## Spring Barley: Another Tool for Grass Weed Suppression

**Spring cropping is an excellent option in the rotation for suppressing grass weeds, it allows more time for new flushes of weeds to grow and be removed before the crop is planted.**

Barley is more competitive than wheat against grass weeds due to its very high tillering capacity, which helps to smother unwanted weeds and block out sunlight to the bottom of the canopy. This also has the benefit of reducing seed return for following crops.

Increased seed rates can be used in some situations to increase this smothering effect.

## Canopy Management

**In order to maximise the potential of your spring barley it is important to keep green leaf area for as long as possible to increase photosynthesis and build yield.**

ELATUS® Era is approved for use on malting barley and is exceptional at controlling brown rust, the most prevalent barley disease of recent years.

*Ramularia* is becoming increasingly important as resistance to fungicides is increasing. Multi-site fungicides such as folpet will bring a level of control against *Ramularia*.

Some of the new high yielding spring barley varieties are more susceptible to lodging. Syngenta trials have found that height reduction is the key to keeping the crop standing. In high risk situations the use of a PGR is recommended to secure grain quality.

# Winter Malting Barley

## Why Choose Winter Malting Barley?

**Winter malting barley accounted for approximately 14% of the barley purchased by maltsters from harvest 2022.**

Although spring barley makes up a larger proportion of the barley grown for malting, winter malting barley is still highly valued by the industry for its high yield potential, early harvest and use in different markets.

Due to the demand from end markets, and premiums for the right specifications, winter malting barley is still an attractive proposition for harvest 2024.

- English Winter Barley
- Scottish Winter Barley
- English Spring Barley
- Scottish Spring Barley

Source: MAGB Final purchases report 2022

# Maltster Purchases H2022

As with most quality crops, proximity to end users often dictates which varieties to grow and how to treat them. Page 7 shows the maltings map of the UK where you will find the location of maltsters closest to you.

Winter malting barley varieties will differ depending on location, so it is worth checking locally which varieties are preferred or if any contracts are available.

SYNGENTA MALTING BARLEY · SINCE 1979 · HERITAGE • QUALITY • EXPERTISE

# An Overview of Our Winter Malting Barley Varieties

**Craft** Winter barley

High yield, fantastic agronomics and a favourite with end users, CRAFT is the leading winter malting barley in the UK.

**Electrum** Winter barley

Winter malting variety bringing high yields, good quality and very early maturity to the UK.

**SY Vessel** Winter barley

The only non-GN winter malting barley with suitability for malt distilling commercially available in the UK.

**Flagon** Winter barley

Although no longer on the AHDB Recommended List, FLAGON remains a popular variety for East Anglia and is still a highly purchased variety.

# CRAFT

SY208-56/SY VENTURE

## The biggest winter malting barley in the UK

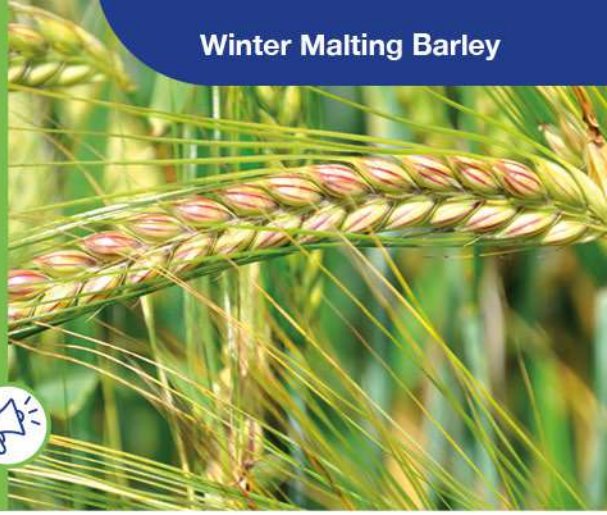
### CRAFT at a glance

- High yielding winter malting barley
- Full MBC Approval for brewing
- Robust disease profile with excellent grain quality
- Strong demand from end users with contracts widely available


## Brewing fine quality ale takes real Craft

## The winter malting barley best served with very high yields and excellent grain quality

CRAFT has
**red pigmentation,**
where the awns and grain will appear red at and after flowering.



## Regional Treated Yield Performance Map


- CRAFT has consistent yields across all regions with a strong disease profile
- Excellent malting characteristics resulting in CRAFT being the most highly demanded winter malting variety across the UK
- Big bold grain with high specific weight, low screenings and the highest Hot Water Extract

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 93 |
| Untreated Yield | 80 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | 6 |
| Brown Rust (1-9) | 7 |
| *Rhynchosporium* (1-9) | 6 |
| Net Blotch (1-9) | 5 |
| BaYMV Type 1 | R |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | 8 |
| Resistance to lodging with PGR (1-9) | 8 |
| Straw height without PGR (cm) | 99 |
| Straw height with PGR (cm) | 91 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 69.9 |
| Screenings (% through 2.25 mm) | 2.3 |
| Screenings (% through 2.5 mm) | 6.8 |
| Nitrogen Content (%) | 1.68 |

| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 308.2 |

# ELECTRUM

SY208-56 X SY208-59

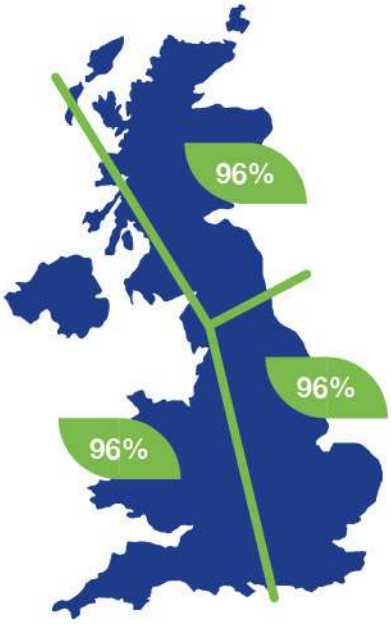
## An outstanding combination of yield, quality and early maturity

### ELECTRUM at a glance

- Highest yielding winter malting variety with Full MBC Approval for Brewing
- Strong disease profile with good untreated yields
- Earliest maturing winter malt variety on the Recommended List
- Fantastic grain quality

**ELECTRUM is one of the earliest winter barleys to ripen, and it will also be one of the first to reach all major spray application growth stages.**

## Regional Treated Yield Performance Map




- ELECTRUM can be grown UK wide but is particularly strong in the East and the West
- ELECTRUM is one of only two Fully MBC Approved winter malting varieties on the AHDB 2024/25 Recommended List offering choice to growers in the mainstream brewing market
- ELECTRUM has slightly weaker straw and will benefit from a PGR programme, care should be taken in high lodging risk situations

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 96 |
| Untreated Yield | 80 |

| Disease Ratings | |
|---|---|
| Mildew (1-9) | 6 |
| Brown Rust (1-9) | 7 |
| *Rhynchosporium* (1-9) | 5 |
| Net Blotch (1-9) | 5 |
| BaYMV Type 1 | R |

| Agronomic Features | |
|---|---|
| Resistance to lodging no PGR (1-9) | 7 |
| Resistance to lodging with PGR (1-9) | 7 |
| Straw height without PGR (cm) | 102 |
| Straw height with PGR (cm) | 92 |
| Ripening (days +/- KWS Orwell) | -1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 69.7 |
| Screenings (% through 2.25 mm) | 2.4 |
| Screenings (% through 2.5 mm) | 6.8 |
| Nitrogen Content (%) | 1.71 |

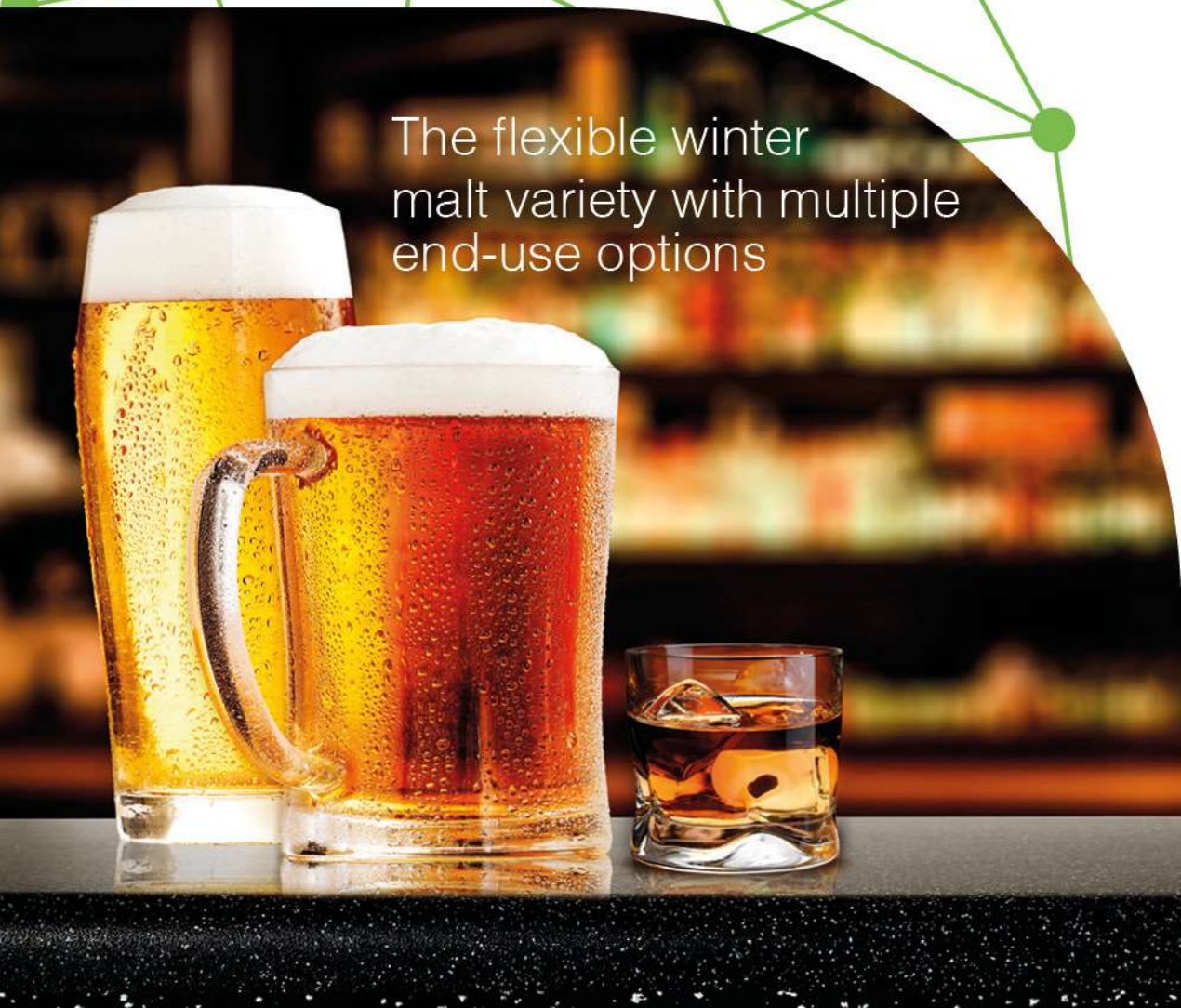
| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 306.9 |

# SY VESSEL

## The only non-GN winter barley with malt distilling potential on the UK market

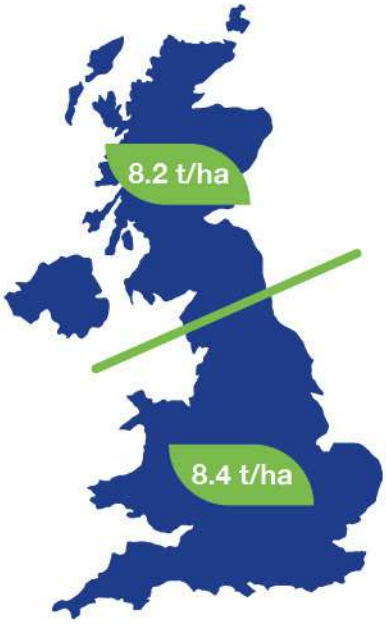
### SY VESSEL at a glance

- Provisional MBC Approval for malt distilling with further suitability for brewing
- Competitive yields with high HWE and PSY
- Good agronomic package, with stiff straw and moderate ripening
- Contracts available for harvest 2024 – check locally



Spring barley has traditionally been the only source of grain for use in malt distilling. SY VESSEL is the **first commercially available** winter type in the UK that can now fulfil this market, helping to mitigate the risks associated with the sole reliance on the spring crop.

## Regional Treated Yield Performance Map




- SY VESSEL has moderate ripening in-between that of CRAFT and ELECTRUM and is a short variety with lodging and brackling resistance similar to that of CRAFT
- SY VESSEL has high specific weight and screenings comparable to CRAFT and ELECTRUM
- Fungicide programmes should target the wet weather diseases of *Rhynchosporium* and *Ramularia*

## Key Performance Statistics*

| Yield | |
|---|---|
| UK Treated Yield | 8.35 t/ha |

| Disease Commentary | |
|---|---|
| Mildew | Moderately resistant |
| Brown Rust | Moderately resistant |
| *Rhynchosporium* | Moderately susceptible |
| Net Blotch | Moderately susceptible |
| BaYMV Type 1 | R |

| Agronomic Features | |
|---|---|
| Lodging treated % | 3.5 |
| Brackling treated % | 16.2 |
| Straw height with PGR (cm) | 85 |
| Ripening (days +/- CRAFT) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 70.8 |
| Screenings (% through 2.2 mm) | 0.41 |
| Screenings (% through 2.5 mm) | 4.7 |
| Nitrogen Content (%) | 1.74 |

| Malting Quality | |
|---|---|
| Hot Water Extract (l deg/kg) | 311.8 |
| Predicted Spirit Yield | 417.6 |

* Data from Syngenta trials

# Winter Malting Barley
# End Markets

**For many malting barley growers, the winter malting crop offers an attractive alternative to spring barley. The potential for higher yields from winter barley and the significantly earlier harvesting window are real tangible benefits and important points that growers should consider when making cropping decisions.**

Historically, winter malting varieties only offered suitability for brewing, leaving the important and expanding malt distilling market completely reliant on the spring barley crop as the only source of malt.

The introduction of SY VESSEL has brought real innovation to the UK market, opening up the malt distilling market to the winter malting sector for the first time.

## Brewing

**Currently, most of the winter malting barley varieties will be aiming for a malting contract for brewing. Typically the following will be required:**

- A grain nitrogen content of 1.6-1.75%
- 94% screenings over a 2.25 mm sieve

Achieving the correct grain nitrogen content specified by your contract is essential.

Typically all our winter brewing varieties will require nitrogen applied in 2 splits, with the last split being applied by GS30-31. The quantity of nitrogen required will vary depending on several factors including soil type, farm history and weather.

## The Malt Distilling Market

**A limited area of winter malting barley will be aimed at the malt distilling market in 2024.**

This will mainly be driven by the uptake of SY VESSEL. Like spring barley, the target % grain N for malt distilling will be below 1.65%.

Syngenta trials have shown that a reduction of between 15 and 35 kg total nitrogen applied will help to achieve a % grain N of below 1.65%, whilst still achieving optimum yields. This is in line with RB209 recommendations for adjusting grain N% content.

### SY VESSEL is able to produce a range of grain nitrogens that fit both the malt distilling and brewing markets


Source: Syngenta nitrogen trials 2020-23 (15 sites for yield, 14 for grain quality)

# Winter Wheat

## Why Choose Winter Wheat?

**Wheat is one of the most important crops globally, providing a significant source of food for humans and animals alike. In the UK, wheat is the most widely grown crop, covering nearly 2 million hectares of land. The UK wheat market is diverse, with different end uses ranging from bread and pasta to animal feed and biofuels.**

The selection of the right wheat variety is crucial for farmers to maximise their yield and profitability. Different varieties have varying characteristics such as disease resistance, yield potential, and quality attributes, which can impact their suitability for different end uses.

In addition to end-use considerations, farmers must also consider environmental factors such as soil type, rotational climate, and pest and disease pressure as well as factors such as rotational positioning and target drilling dates when selecting a wheat variety. The right variety can help farmers to optimise their crop production and maximise returns.

The wheat section of our variety guide aims to provide farmers with information on the different Syngenta wheat varieties available in the UK market, their characteristics, and suitability for different end uses and growing situations. By selecting the right variety we can work together to meet the demands of the diverse wheat market.

# An Overview of Our Winter Wheat Varieties

**SY Insitor**
Winter wheat

Very high yielding hard group 4 feed wheat with outstanding performance on light land and excellent grain quality.

**Gleam**
Winter wheat

High yielding, adaptable and flexible variety with a very wide drilling window.

**Graham**
Winter wheat

Secure, consistent feed wheat, with resilient *Septoria tritici* resistance. GRAHAM continues to deliver exceptional performance on farm.

**SY Cheer**
Winter wheat

Provisional Group 1, newly added to the AHDB Recommended List 2024/25, SY CHEER brings strong disease resistance including high yellow rust control and very high untreated yields. Excellent grain quality including high protein, Hagberg Falling Number and specific weight means it is highly suited to the milling market.

# SY INSITOR

AB111-1011 X HEREFORD

## Very high yields with excellent grain quality

### SY INSITOR at a glance

- Very high yielding hard group 4 with unrivalled yield potential on light land
- Excellent grain quality, especially specific weight
- High performing first and second wheat

**SY INSITOR is growing in popularity in the Northern region due to high grain quality, good Septoria resistance and an increased acceptance from the distilling industry.**

## Regional Treated Yield Performance Map


**North**: SY INSITOR has consistently been one of the top performers in the Northern region at 105.4% of controls.

**West**: Robust Septoria resistance combined with excellent grain quality drives high performance in the Western region.

**East**: With lots of light land and later drilled crops in the East, the vigorous rooting of SY INSITOR sets the platform for high performance on farm in the East.

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 104.4 |
| Untreated Yield | 79 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 78.6 |

| Disease | |
|---|---|
| *Septoria tritici* | 6.4 |
| Yellow Rust | 4 |
| Brown Rust | 6 |
| Mildew | 7 |
| Eyespot | 5 |
| Fusarium | 7 |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Ripening (days +/- Skyfall) | +1 |
| OWBM | R |

| Variety Performance | |
|---|---|
| 2021 | 105 |
| 2022 | 105 |
| 2023 | 106 |
| First Cereal | 104 |
| Second Cereal | 105 |
| Early Sown (before 25/09) | [107] |
| Mid Sown (25/09 - 31/10) | 105 |
| Late Sown (after 01/11) | 102 |
| Light Soils | 106 |
| Heavy Soils | 104 |

## SY INSITOR Positioning

- Quick early development with erect growth habit
- Fast to reach GS30, but slower to reach heading
- The latest Syngenta variety to reach ripening
- Moderate maturity of +1

**Safe Sowing Dates**
14 September – 31 January

**Excellent first + second wheat with impressive yields on lighter land**

## Still Number 1 on Light Land

**SY INSITOR**
Total root length:
1405 mm

**Leading Competitor**
Total root length:
1243 mm

A high rooting mass allows SY INSITOR to scavenge for water and nutrients in light soils and drought situations.

## Distilling Opportunity

Historically soft feed wheat has been used for distilling and bioethanol production, however in recent years this has changed to include hard feed wheats too. SY INSITOR has high specific weight and high starch to protein ratio which makes it ideally suited to distilling and bioethanol production.

### SY INSITOR has delivered high and stable performance for the past 5 years

Differential between SY INSITOR and LG Skyscraper across the UK is now 2.4% or 0.265 t/ha

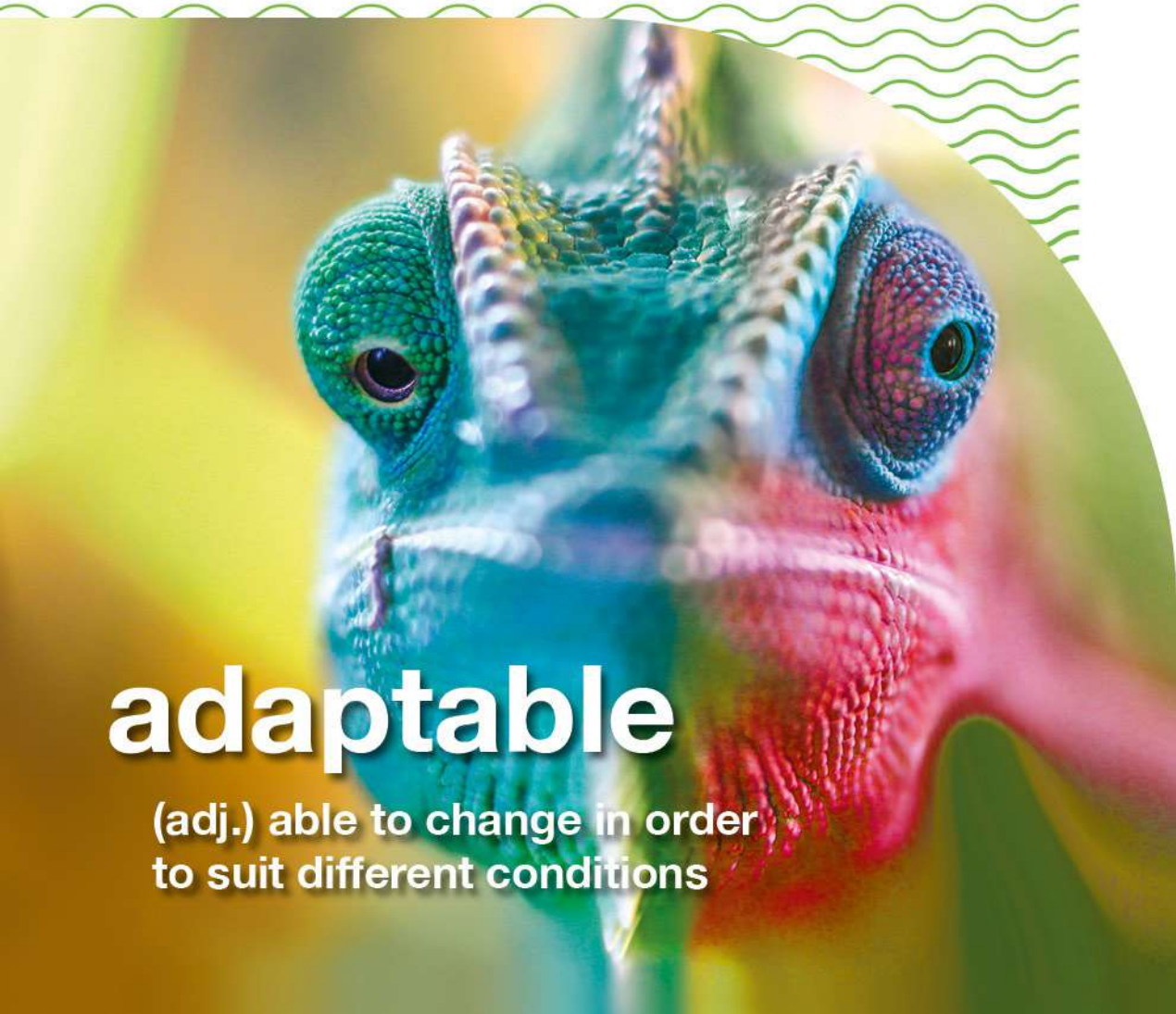
# GLEAM

KWS KIELDER X HEREFORD

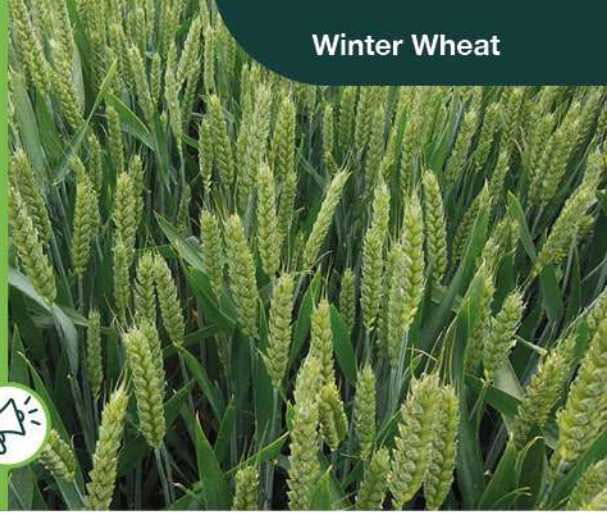
## Adapts to all soil types, all regions, all seasons

### GLEAM at a glance

- Delivers consistently in all regions, all soil types and all rotational positions
- Wide drilling window from early September to mid-February
- Stiff straw and good specific weight



**GLEAM is unrivalled for consistency across farm situations. GLEAM has an excellent ability to compensate through TGW and grains per ear allowing it to perform on farm.**



## Regional Treated Yield Performance Map


- GLEAM is a high yielding, hard group 4 variety which has unrivalled consistency
- It delivers 103% of controls in all 3 regions which is testament to the variety's ability to perform in all situations
- It has shown extremely stable performance across drilling dates, rotational positions and soil types – this is the ultimate variety for farm flexibility

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 103 |
| Untreated Yield | 80 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 76.9 |

| Disease | |
|---|---|
| *Septoria tritici* | 5.7 |
| Yellow Rust | 5 |
| Brown Rust | 6 |
| Mildew | 6 |
| Eyespot | 5 |
| Fusarium | 6 |

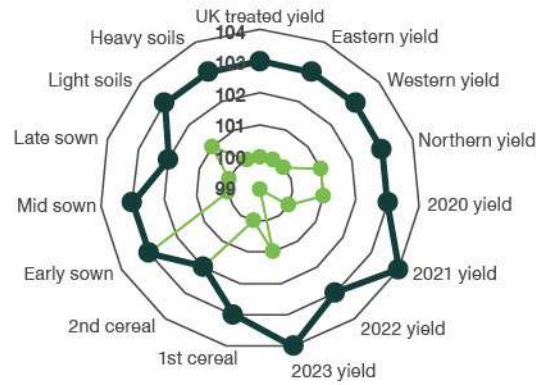
| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Ripening (days +/- Skyfall) | 0 |
| OWBM | R |

| Variety Performance | |
|---|---|
| 2021 | 104 |
| 2022 | 103 |
| 2023 | 104 |
| First Cereal | 103 |
| Second Cereal | 102 |
| Early Sown (before 25/09) | 103 |
| Mid Sown (25/09 - 31/10) | 103 |
| Late Sown (after 01/11) | 102 |
| Light Soils | 103 |
| Heavy Soils | 103 |

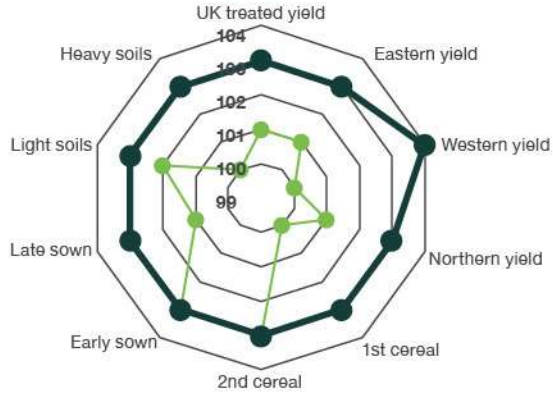
## Consistenly Adaptable

**GLEAM has proven its adaptability year after year, with consistent yields in every region, every soil type and every rotational position, it is arguably the most adaptable variety on farm.**

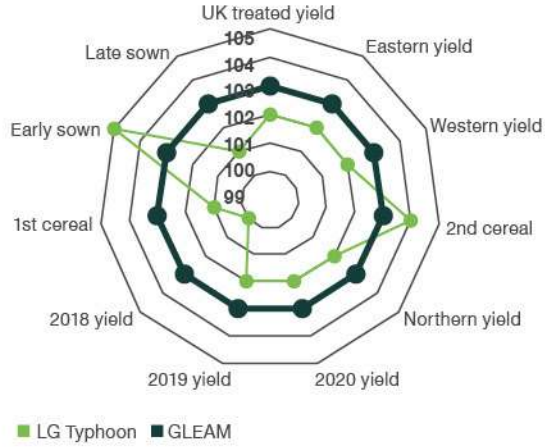
### 2024/25 RL




### 2023/24 RL




### 2022/23 RL



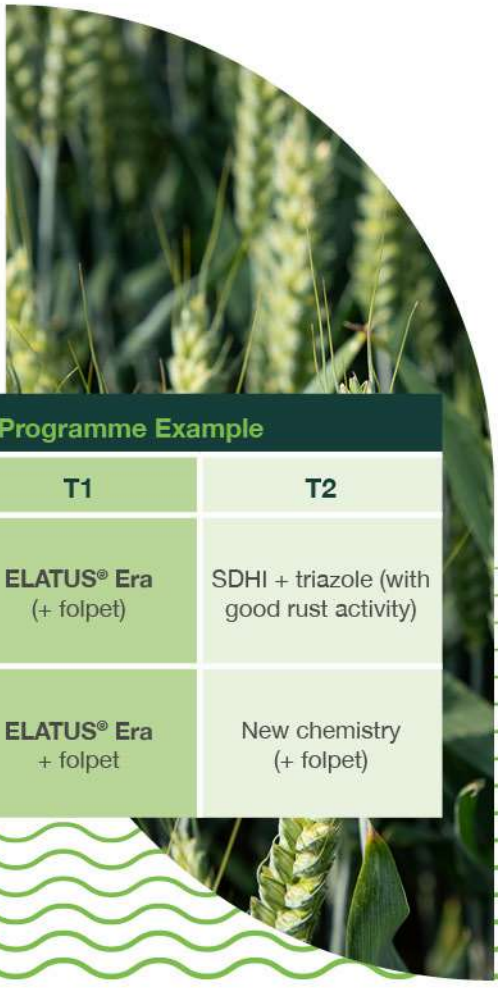
## GLEAM Positioning

- Slow development over winter with a very prostrate growth habit
- Very high tillering ability with excellent tiller retention throughout the season
- Slow to reach GS30, but speeds up once stem extension is reached
- Early maturity



## GLEAM Programme

- GLEAM will benefit from a full fungicide programme to gain its full potential
- GLEAM is seedling susceptible to yellow rust and may benefit from early disease control at T0 and T1
- GLEAM has OWBM resistance which simplifies pest management



| | GLEAM Programme Example | | |
|---|---|---|---|
| | **T0** | **T1** | **T2** |
| **Yellow Rust Focus** | **Protectant:** AMISTAR® **Curative:** Rust Active Triazole | **ELATUS® Era** (+ folpet) | SDHI + triazole (with good rust activity) |
| ***Septoria tritici* Focus** | Folpet | **ELATUS® Era** + folpet | New chemistry (+ folpet) |

# GRAHAM

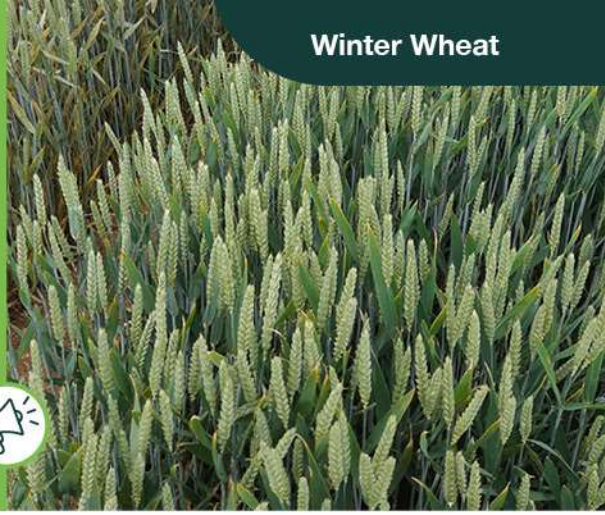
PREMIO X EXPERT

## The Consistent, Secure Option

### GRAHAM at a glance

- Secure and consistent yields every year
- Robust disease resistance driven by unique genetics
- Early maturity spreads harvest risk
- Reliable straw and grain quality

**GRAHAM originated from Syngenta's French breeding programme. It has unique genetics in the UK market which helps drive diversity.**



## Regional Treated Yield Performance Map


- GRAHAM is a high yielding, hard group 4 variety which has proven performance across many seasons
- It has very early maturity (-1) which helps spread risk and workload at harvest
- Robust disease resistance, including a *Septoria tritici* resistance rating of 6.6 which helps drive excellent Western performance

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 102 |
| Untreated Yield | 89 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 77.7 |

| Disease | |
|---|---|
| *Septoria tritici* | 6.6 |
| Yellow Rust | 7 |
| Brown Rust | 5 |
| Mildew | 6 |
| Eyespot | 4 |
| Fusarium | 6 |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 8 |
| Ripening (days +/- Skyfall) | -1 |
| OWBM | - |

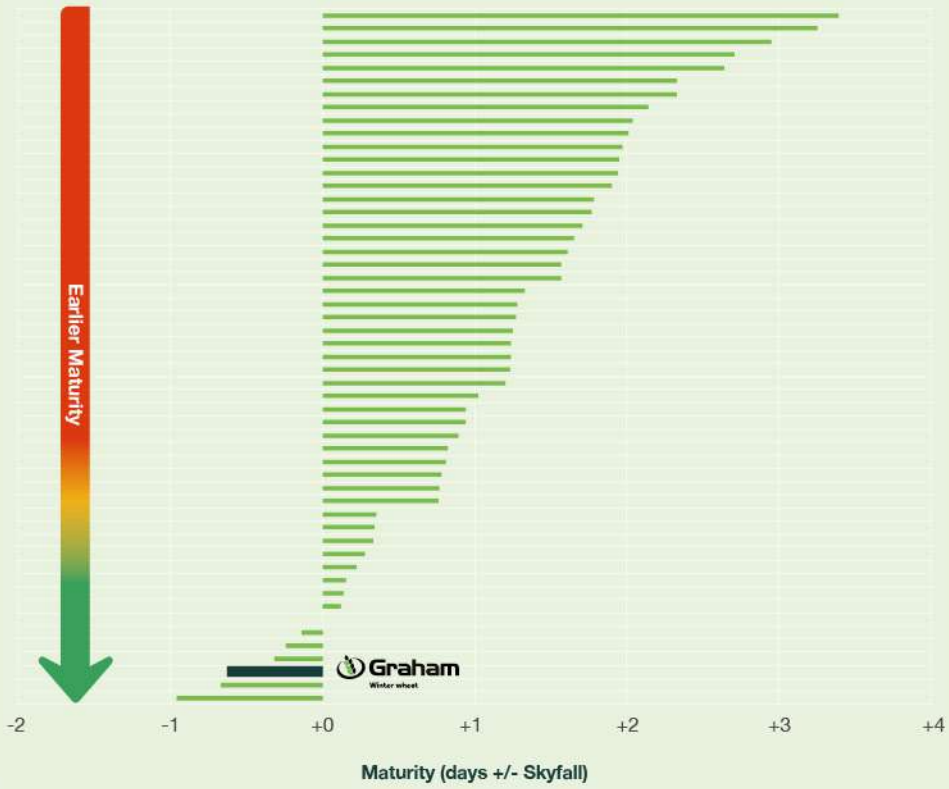
| Variety Performance | |
|---|---|
| 2021 | 103 |
| 2022 | 103 |
| 2023 | 102 |
| First Cereal | 102 |
| Second Cereal | 101 |
| Early Sown (before 25/09) | 101 |
| Mid Sown (25/09 - 31/10) | 102 |
| Late Sown (after 01/11) | 99 |
| Light Soils | 102 |
| Heavy Soils | 102 |

## GRAHAM Positioning

- GRAHAM is best suited in a first wheat situation
- It yields equally well on light and heavy soil and it is a great choice for either
- GRAHAM is a very good early drill variety with stiff straw and good disease resistance
- Slow development over winter
- Prostrate growth habit with good ground cover over winter
- Slow to reach GS30
- Quickly moves through GS30-39, resulting in very early maturity

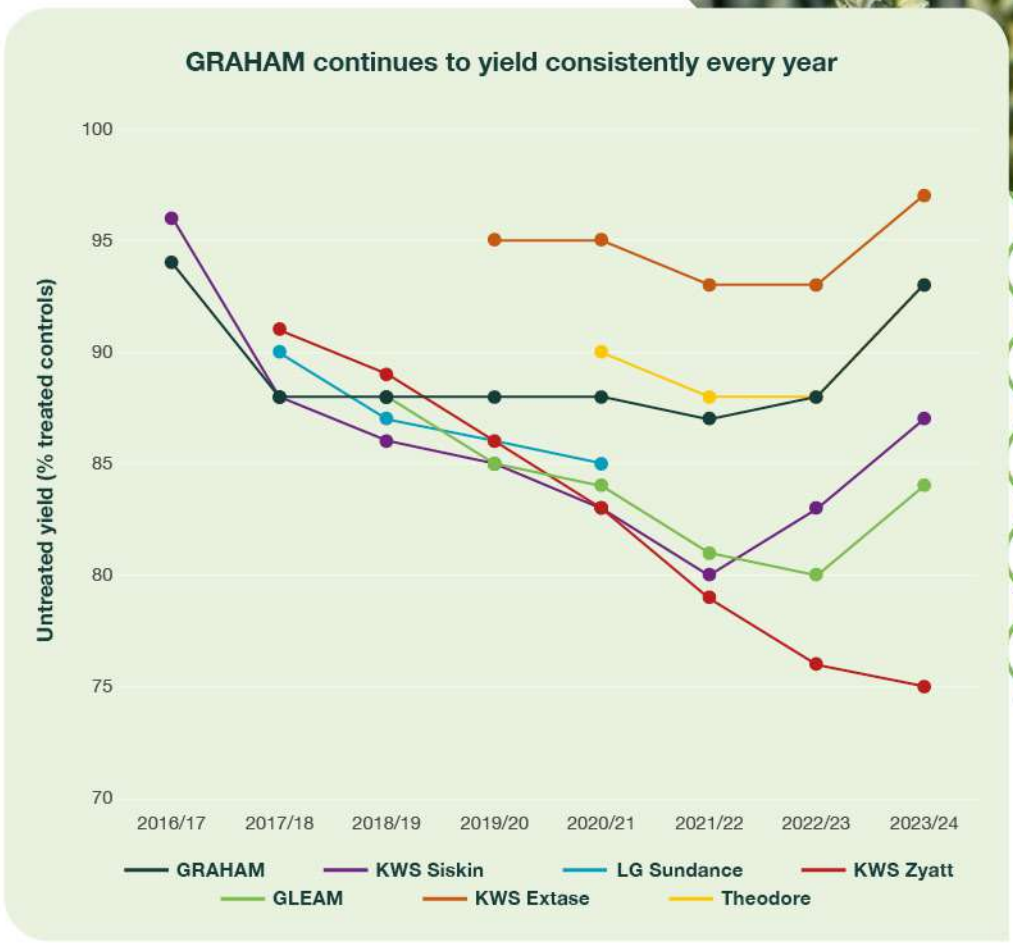


### GRAHAM's early maturity protects grain quality in wet harvests



## Consistency follows through in untreated yields

Since joining the AHDB Recommended List in 2016, GRAHAM has maintained its very high untreated yields, unlike many other varieties which joined the RL in following years and have shown a steady decline over the years.




## GRAHAM Programme

- GRAHAM has high untreated yields and its resistance profile gives greater flexibility with timings
- GRAHAM is seedling susceptible to yellow rust and may benefit from early disease control if pressure is high
- Monitor eyespot if growing GRAHAM as a second cereal
- GRAHAM does not have OWBM, in seasons where risk is high, monitor pest levels to decide whether to spray

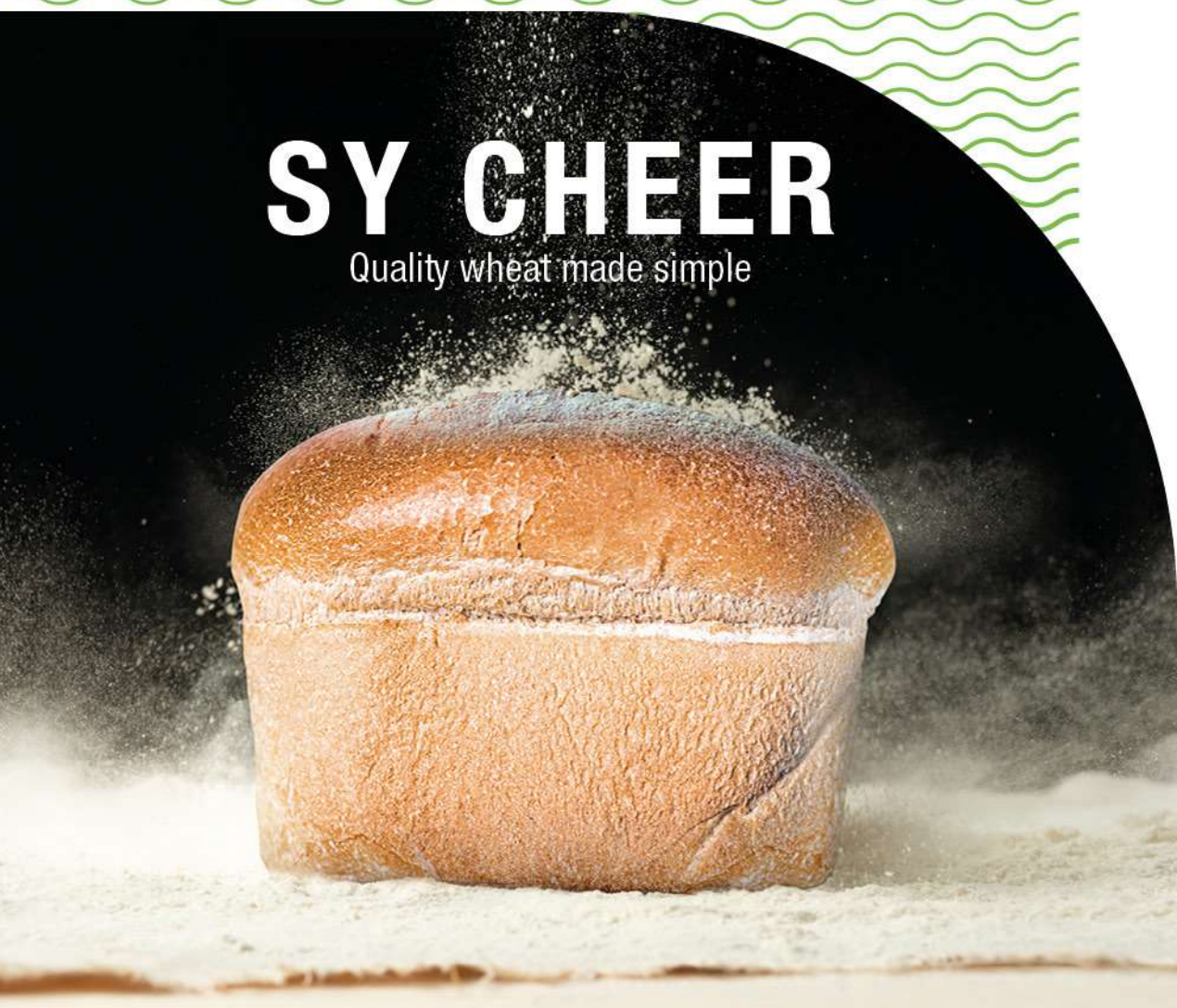
# SY CHEER

KWS TRINITY X EXPERT

## Quality wheat made simple

### SY CHEER at a glance

- Newly Recommended Breadmaking Group 1 potential
- Excellent grain quality with characteristics for breadmaking
- High untreated yield driven by robust disease resistance



**SY CHEER has inherently high grain quality with excellent specific weight, robust and stable Hagbergs and a good ability to assimilate nitrogen in the grain. These characteristics all help with meeting contract specifications.**

## Regional Treated Yield Performance Map


- SY CHEER outyields Skyfall in all regions
- SY CHEER has an excellent all round disease profile which supports high performance in all regions regardless of disease pressure
- SY CHEER has improved HFN over all of the existing Group 1 varieties which makes it an excellent fit to mitigate risks at harvest

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 97 |
| Untreated Yield | 84 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 79.5 |
| Protein (milling spec) | 13% |
| Hagberg Falling Number | 299 |

| Disease | |
|---|---|
| *Septoria tritici* | 6 |
| Yellow Rust | 7 |
| Brown Rust | 6 |
| Mildew | [8] |
| Eyespot | 4 |
| Fusarium | [7] |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Ripening (days +/- Skyfall) | +1 |
| OWBM | - |

| Variety Performance | |
|---|---|
| First Cereal | 97 |
| Second Cereal | 95 |
| Early Sown (before 25/09) | [[97]] |
| Mid Sown (25/09 - 31/10) | 97 |
| Late Sown (after 01/11) | [[100]] |
| Light Soils | [96] |
| Heavy Soils | 97 |

## SY CHEER Positioning

SY CHEER has a slightly more prostrate growth habit than Skyfall and is slightly later to reach GS31 which may give greater flexibility for early sowing.

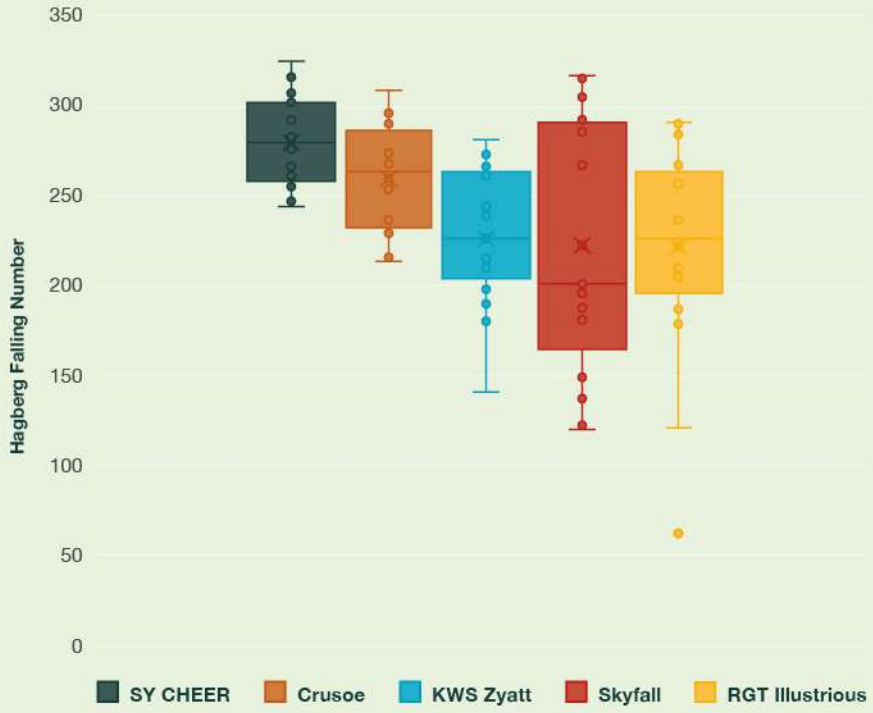
Safe Sowing Dates

14 September – 31 January

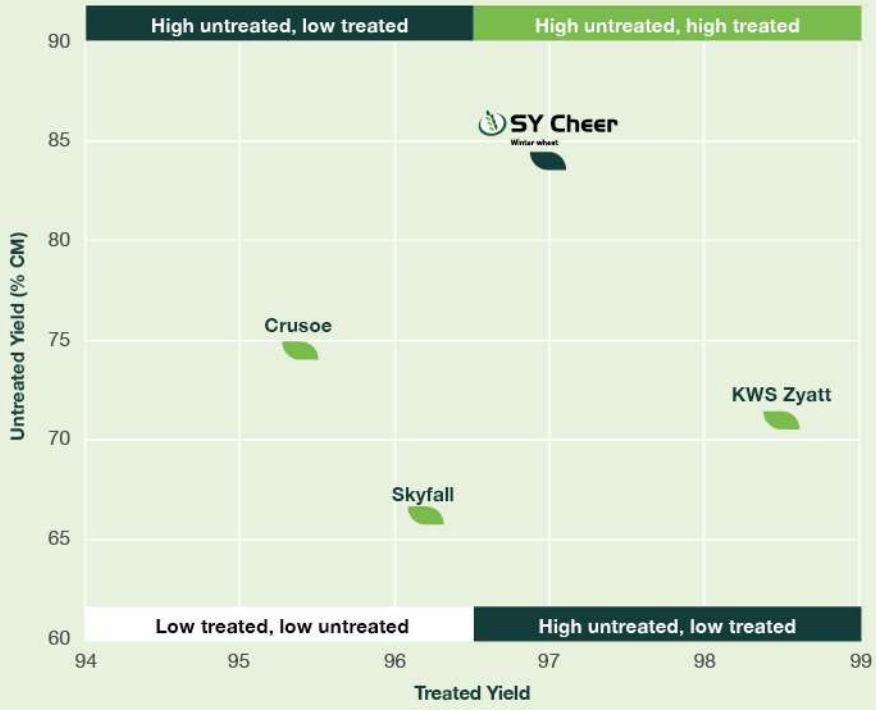
Potential Group 1 milling wheat

### SY CHEER has inherently high and stable grain quality to support hitting contract specifications

2023 harvest season had significant rainfall which impacted milling wheat quality, in particular HFN due to sprouting in the ear. SY CHEER has inherently high HFN which helps protect achieving contract premiums.




## Untreated yield makes SY CHEER a game changer




Trials have shown that SY CHEER is able to **maintain grain quality** far better than key competitors under low fungicide inputs.

# Hybrid Barley

## Why Choose Hybrid Barley?

**Heterosis, or hybrid vigour means that hybrid barley delivers more than just high yield.**

**Yield stability**: Not only do hybrids deliver high yield, they do so every year and this stability means many UK farmers choose to continue growing hybrids as they know that they will deliver no-matter what the season may throw at them.

**Grass weed suppression:** Hybrid barley has been independently scientifically proven to be better at competing with black-grass than conventional barley and wheat.

**Nitrogen use efficiency:** Syngenta trials in conjunction with ADAS have demonstrated that hybrid barley shows enhanced nitrogen use efficiency when compared to conventional barley varieties.

**Good specific weight:** Hybrid barley has equivalent specific weight to 2-row feed varieties.

**Early to mature:** Hybrid barley varieties are some of the earliest to mature, meaning they are ready for harvest earlier. This means grain in the barn and fields ready for WOSR drilling.

**Excellent disease resistance:** Hybrid barley varieties are bred with excellent disease resistance. This offers flexibility when it comes to disease management and spray timings.

# Which is the best variety for your farm?

**Each variety can bring something different to your farm. The underlying benefits of all hybrid barley varieties are uniquely driven by hybrid vigour.**

Syngenta breeding expertise has developed hybrid barley to be dependable and reliable, across all soil types, regions and seasons.

## Our Varieties at a Glance

| Variety | Treated Yield | Untreated Yield | Specific Weight | Mildew | Brown rust | *Rhynchosporium* | Net blotch | Resistance to Lodging | Ripening | East | West | North | Light Soil | Heavy Soil |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SY KINGSBARN** | 107 | 83 | 70.2 | 7 | 5 | 7 | 5 | 7 | 0 | 106 | 107 | 107 | 107 | 103 |
| **BAZOOKA** | 104 | 83 | 69.9 | 5 | 5 | 7 | 5 | 6 | 0 | 104 | 104 | 106 | 106 | 103 |
| **SY NEPHIN** | 104 | 92 | 70.7 | 6 | 7 | 7 | 6 | 7 | 0 | 105 | 102 | 105 | 105 | 102 |
| **SY THUNDERBOLT** | 107 | 88 | 70.2 | 7 | 6 | 7 | 6 | 6 | -1 | 106 | 108 | 107 | 106 | 105 |
| **SY BUZZARD (BYDV)** | 103 | 82 | 69.0 | 6 | 6 | 6 | 7 | 7 | -1 | 104 | [101] | [102] | [101] | [100] |
| **SY CANYON** | 106 | 91 | 71.1 | 7 | 6 | 6 | 6 | 6 | -1 | 105 | 106 | 106 | 107 | 102 |
| **SY KINGSTON** | 107 | 87 | 70.1 | 7 | 6 | 7 | 6 | 5 | -1 | 106 | 108 | 106 | 106 | 101 |
| **BELFRY** | 105 | 87 | 68.8 | 6 | 6 | 7 | 5 | 8 | 0 | 105 | 104 | 105 | 104 | 102 |

Source: AHDB RL 2024/25. SY ARMADILLO not RL listed, performance data can be found at agrii.co.uk. ALL hybrid barley varieties are BaYMV Type 1 resistant.

**20 years**
of Hybrid Barley

# Offering Much More Than Just High Yield

**Grass weed suppression is a significant benefit and trials have shown it can add more than £50/ha in recovered yield. Hybrid barley should be an integral part of your integrated grass weed management strategy on-farm.**

Our varieties also offer management flexibility. For example, early ripening provides an opportunity to spread workload at harvest, avoid overlap with the wheat harvest and drill following crops of winter oilseed rape. Likewise, the robust disease resistance profile of some hybrid varieties provides greater flexibility for fungicide application timings.

Barley straw is valued more highly than wheat straw. Syngenta trials have demonstrated that even with the lower seed rate used for hybrids they produce a comparable straw yield to conventional varieties. The straw from hybrid barley crops offers a welcome extra income.

Syngenta and ADAS trials have shown hybrid barley can utilise N more efficiently within the plant than conventional varieties. This indicates that hybrid barley is more effective at converting nitrogen into yield than conventional varieties.

- Grass weed suppression
- Strong alternative to 2nd wheats
- Ideal entry for WOSR
- High specific weight for grain contracts
- Efficient nitrogen utilisation
- More flexible disease management
- Early harvest gives workload & cash flow benefits
- Dependable performance reduces risk

# An Overview of Our Hybrid Barley Varieties

| | |
|---|---|
| SY Kingsbarn Hyvido | The high-performing all-rounder. Ideal choice for all regions with great grain quality and easy to grow. |
| Bazooka Hyvido | Proven on farm performance. Strong track record and wet weather disease resistance. |
| SY Nephin Hyvido | High specific weight with outstanding *Rhynchosporium* resistance and shorter straw. |
| SY Thunderbolt Hyvido | The variety with consistently high regional yields. Strong on heavy land, great grain quality and early to mature. |
| SY Buzzard Hyvido | NEW! All the benefits of hybrid barley, now with BYDV tolerance. |
| SY Armadillo Hyvido | Toughen up your disease protection. Great choice for the North with great *Rhynchosporium* resistance. |
| SY Canyon Hyvido | Superior grain quality and disease resistance all in one variety. |
| SY Kingston Hyvido | A strong performer for the North, West and on light land. Early maturing and great grain quality. |
| Belfry Hyvido | High yield, resilient and easy to manage. Robust disease and lodging profile for management flexibility. |

# SY KINGSBARN

F1 HYBRID

## The high-performing all-rounder

### SY KINGSBARN at a glance

- The number one hybrid barley variety in the UK
- An ideal choice for all regions
- Great grain quality
- Easy to grow

**SY KINGSBARN is the market leading hybrid barley variety with a proven track record of performance. Easy to grow with a winning choice of high yield, great grain quality and good all round agronomics.**

## Regional Treated Yield Performance Map


- Great choice for all regions
- Superb grain quality
- Good resistance to lodging and disease

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 107 |
| Untreated Yield | 83 |
| East Region Yield | 106 |
| West Region Yield | 107 |
| North Region Yield | 107 |
| Light Land | 107 |
| Heavy Land | 103 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 5 |
| Brown Rust (1-9) | 5 |
| Mildew (1-9) | 7 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Resistance to lodging -PGR (1-9) | 6 |
| Straw height with PGR (cm) | 106 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 70.2 |

# SY NEPHIN

F1 HYBRID

## The all-rounder hybrid barley feed variety that is super easy to grow

### SY NEPHIN at a glance

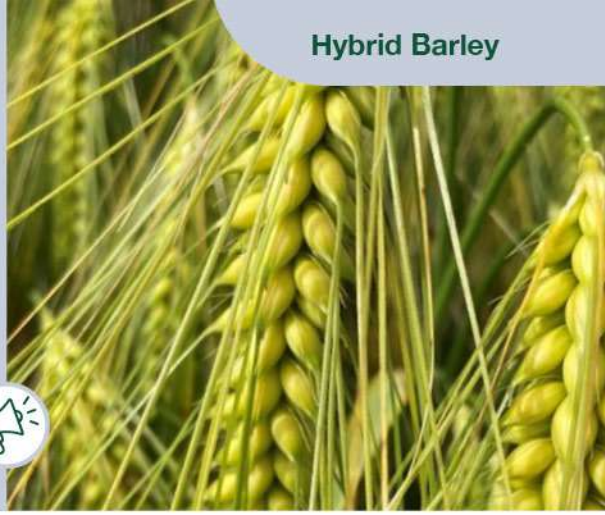
- High yield and fantastic specific weight
- Excellent disease resistance with high untreated yield
- Shorter straw and low lodging risk

# Cow about that.

The new all-rounder **hybrid barley** feed variety that is super easy to grow.

## SY NEPHIN

**Reflecting Syngenta hybrid breeding expertise, combining high yield, excellent specific weight and outstanding disease resistance.**



## Regional Treated Yield Performance Map


- High yield and fantastic specific weight
- Excellent disease resistance
- Shorter straw and low lodging risk

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 104 |
| Untreated Yield | 92 |
| East Region Yield | 105 |
| West Region Yield | 102 |
| North Region Yield | 105 |
| Light Land | 105 |
| Heavy Land | 102 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 6 |
| Brown Rust (1-9) | 7 |
| Mildew (1-9) | 6 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Resistance to lodging -PGR (1-9) | [6] |
| Straw height with PGR (cm) | 104 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 70.7 |

# BAZOOKA

F1 HYBRID

## Strong grass weed suppression and wet weather disease resistance

### BAZOOKA at a glance

- Proven on-farm performance
- Wet weather disease resistance
- Great grass weed suppression

**BAZOOKA has proven on-farm performance and is a great choice for grass weed suppression.**

## Regional Treated Yield Performance Map


- Good performance in all regions
- Wet weather disease resistance
- Great choice for grass weed suppression

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 104 |
| Untreated Yield | 83 |
| East Region Yield | 104 |
| West Region Yield | 104 |
| North Region Yield | 106 |
| Light Land | 106 |
| Heavy Land | 103 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 5 |
| Brown Rust (1-9) | 5 |
| Mildew (1-9) | 5 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 6 |
| Resistance to lodging -PGR (1-9) | 6 |
| Straw height with PGR (cm) | 111 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 69.9 |

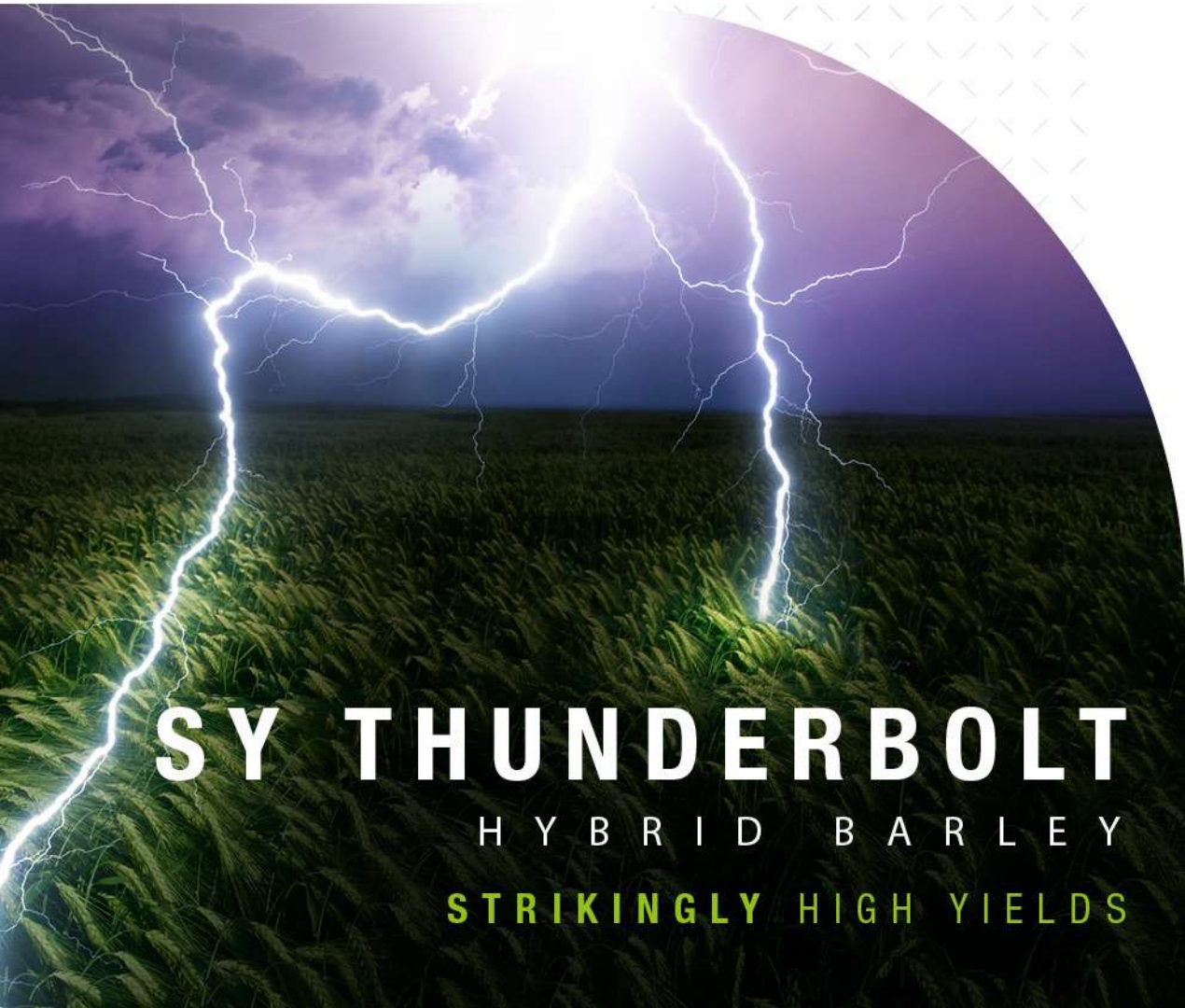
# SY THUNDERBOLT

F1 HYBRID

## The variety with consistently high regional yields

### SY THUNDERBOLT at a glance

- Very high yields and strong in the West
- Outstanding heavy land performance
- Great grain quality & early to mature



**SY THUNDERBOLT is strong in the West and on heavy land, with great grain quality and early maturity.**

## Regional Treated Yield Performance Map


- Early to mature
- Exceptional yield
- Outstanding performance in the West and on heavy land

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 107 |
| Untreated Yield | 88 |
| East Region Yield | 106 |
| West Region Yield | 108 |
| North Region Yield | 107 |
| Light Land | 106 |
| Heavy Land | 105 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 6 |
| Brown Rust (1-9) | 6 |
| Mildew (1-9) | 7 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 6 |
| Resistance to lodging -PGR (1-9) | 5 |
| Straw height with PGR (cm) | 107 |
| Ripening (days +/- KWS Orwell) | -1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 70.2 |

# SY BUZZARD

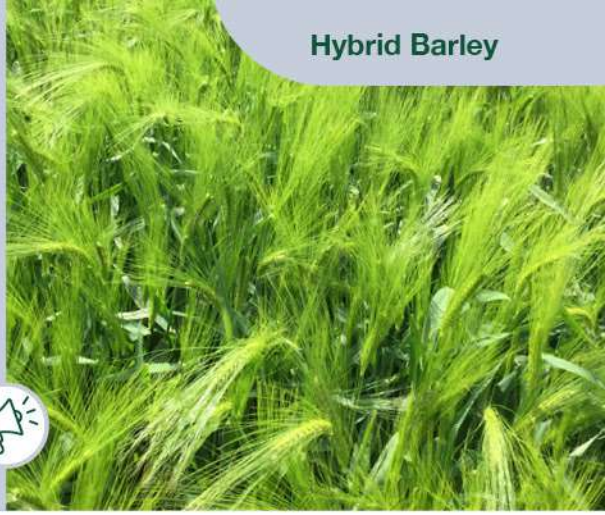
F1 HYBRID

## Hybrid barley, now with BYDV tolerance

### SY BUZZARD at a glance

- Excellent performance in the East
- Outstanding Net blotch resistance
- Tolerance to BYDV

**SY BUZZARD, all the benefits of hybrid barley... now with BYDV tolerance.**



## Regional Treated Yield Performance Map


- BYDV tolerance is a significant benefit on farm
- Excellent yield performance
- Good agronomics & resistance to disease

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 103 |
| Untreated Yield | 82 |
| East Region Yield | 104 |
| West Region Yield | [101] |
| North Region Yield | [102] |
| Light Land | [101] |
| Heavy Land | [100] |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 6 |
| Net Blotch (1-9) | 7 |
| Brown Rust (1-9) | 6 |
| Mildew (1-9) | 6 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | T |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 7 |
| Resistance to lodging -PGR (1-9) | [8] |
| Straw height with PGR (cm) | 107 |
| Ripening (days +/- KWS Orwell) | -1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 69 |

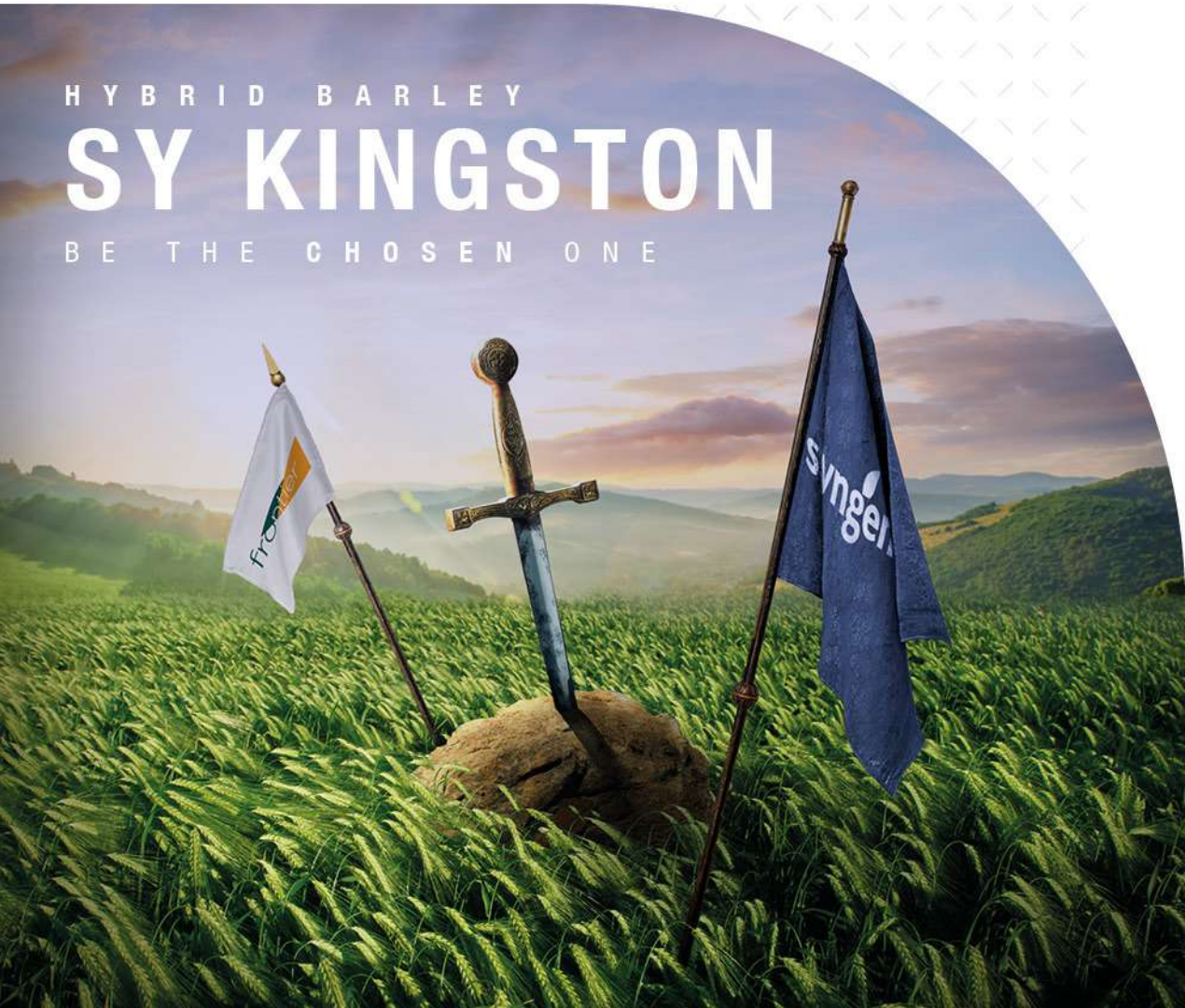
# SY KINGSTON

F1 HYBRID

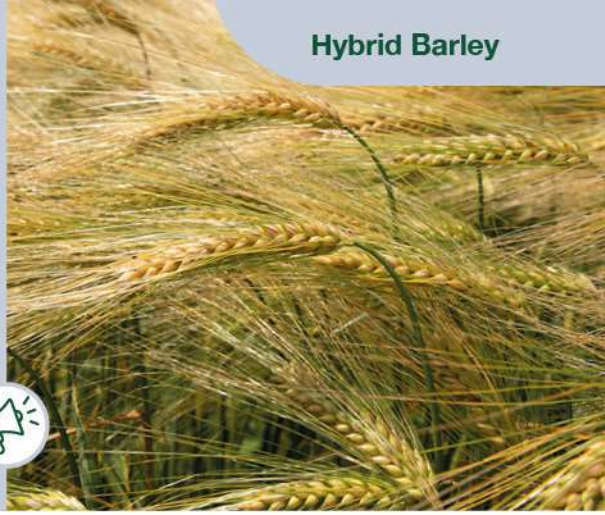
## A strong performer for the North, West and on light land

### SY KINGSTON at a glance

- Outstanding yield and strong regional performance
- Early maturity
- Good wet weather disease resistance



**SY KINGSTON is a strong performer for the North, West and on light land.**



## Regional Treated Yield Performance Map


- Strong yields, particularly in the North and West
- Excellent specific weight
- Good wet weather disease resistance

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 107 |
| Untreated Yield | 87 |
| East Region Yield | 106 |
| West Region Yield | 108 |
| North Region Yield | 106 |
| Light Land | 106 |
| Heavy Land | 101 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 6 |
| Brown Rust (1-9) | 6 |
| Mildew (1-9) | 7 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 5 |
| Resistance to lodging -PGR (1-9) | 6 |
| Straw height with PGR (cm) | 109 |
| Ripening (days +/- KWS Orwell) | -1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 70.1 |

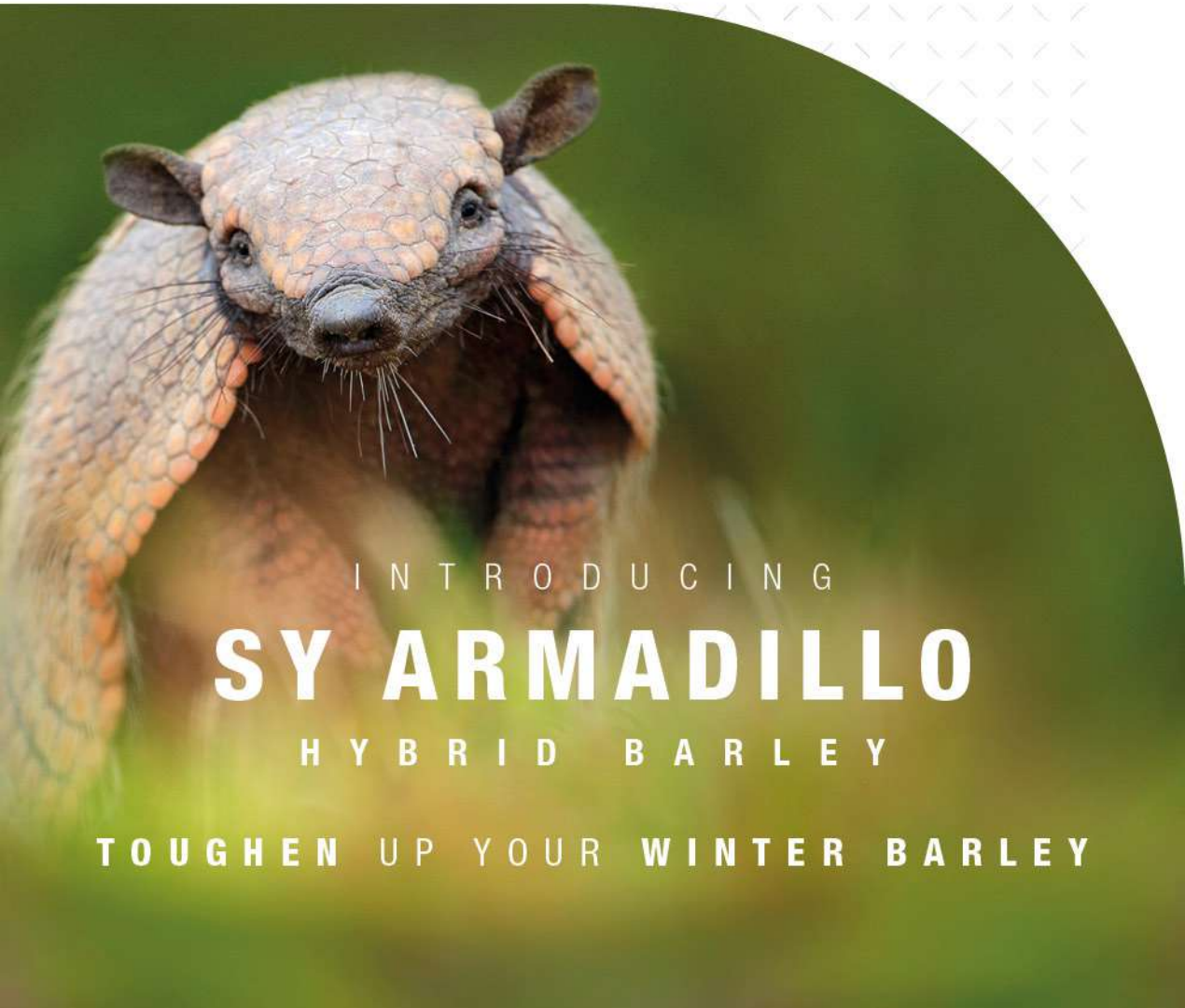
# SY ARMADILLO

F1 HYBRID

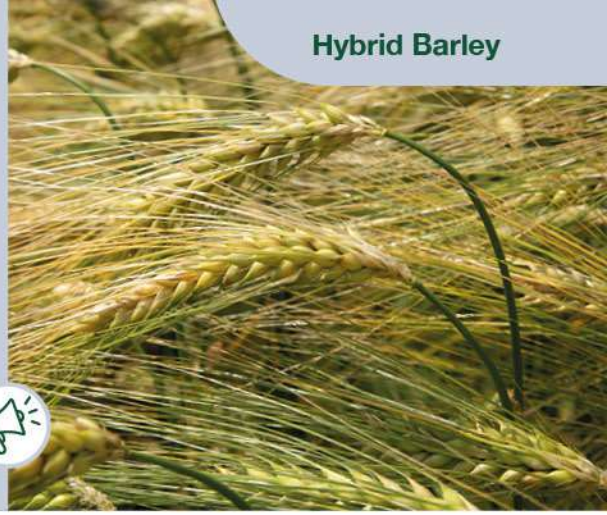
## Toughen up your winter barley

### SY ARMADILLO at a glance

- High yields
- Good wet weather disease resistance
- Flexible agronomics



**SY ARMADILLO is a great choice for the North with exceptional *Rhynchosporium* resistance.**



## Key Performance Statistics*

| Yield (%) | |
|---|---|
| UK Treated Yield | 107 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 8 |
| Brown Rust (1-9) | 5 |
| Mildew (1-9) | 5 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Treated lodging (%) | 4 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 69.5 |

- Great choice for the North
- Exceptional *Rhynchosporium* resistance
- Robust variety with good resistance to lodging

*SY ARMADILLO is not on the AHDB RL, all values are based on most recently available official results from the 2020 AHDB RL Candidate List

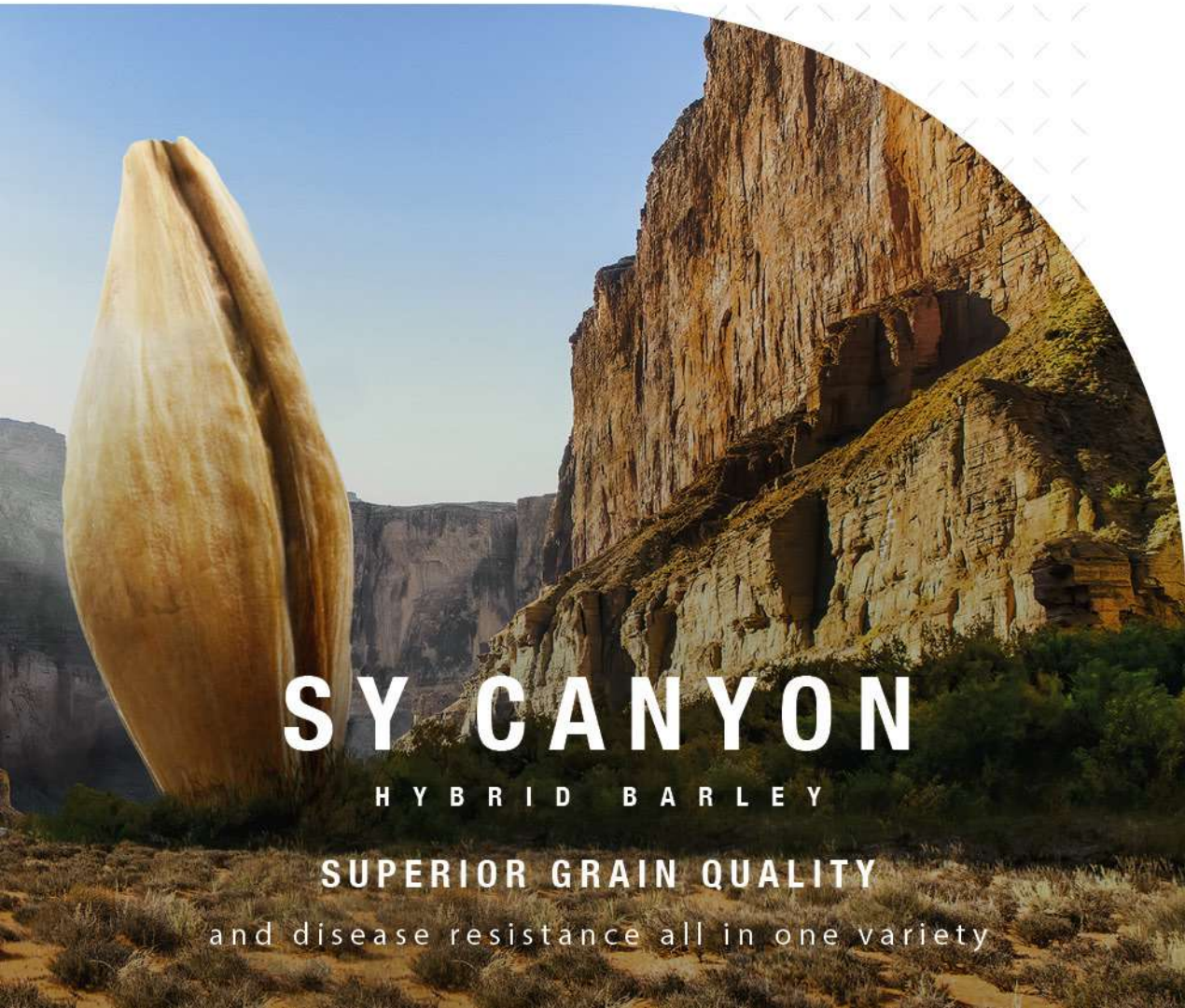
# SY CANYON

F1 HYBRID

## Superior grain quality and disease resistance all in one variety

### SY CANYON at a glance

- Outstanding specific weight
- Excellent disease resistance and high untreated yield
- Excellent light land performance



**SY CANYON is a high performance hybrid, combining yield, quality and disease resistance.**

## Regional Treated Yield Performance Map


- Excellent light land performance
- Outstanding untreated yield
- Fantastic specific weight

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 106 |
| Untreated Yield | 91 |
| East Region Yield | 105 |
| West Region Yield | 106 |
| North Region Yield | 106 |
| Light Land | 107 |
| Heavy Land | 102 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 6 |
| Net Blotch (1-9) | 6 |
| Brown Rust (1-9) | 6 |
| Mildew (1-9) | 7 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 6 |
| Resistance to lodging -PGR (1-9) | 6 |
| Straw height with PGR (cm) | 109 |
| Ripening (days +/- KWS Orwell) | -1 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 71.1 |

# BELFRY

F1 HYBRID

## High yielding, resilient and easy to manage

### BELFRY at a glance

- Robust disease resistance
- Excellent standing power
- High yields

**BELFRY is the hybrid barley variety that is easy to manage, with strong disease resistance and short, stiff straw.**

## Regional Treated Yield Performance Map


- Easy to manage
- Short, stiff straw
- High untreated yield

## Key Performance Statistics

| Yield (%) | |
|---|---|
| UK Treated Yield | 105 |
| Untreated Yield | 87 |
| East Region Yield | 105 |
| West Region Yield | 104 |
| North Region Yield | 105 |
| Light Land | 104 |
| Heavy Land | 102 |

| Disease Resistance Ratings | |
|---|---|
| *Rhynchosporium* (1-9) | 7 |
| Net Blotch (1-9) | 5 |
| Brown Rust (1-9) | 6 |
| Mildew (1-9) | 6 |
| BaYMV (R= Resistance) | R |
| BYDV (T= Tolerant) | N |

| Agronomic Features | |
|---|---|
| Resistance to lodging +PGR (1-9) | 8 |
| Resistance to lodging -PGR (1-9) | 7 |
| Straw height with PGR (cm) | 104 |
| Ripening (days +/- KWS Orwell) | 0 |

| Grain Quality | |
|---|---|
| Specific Weight (kg/hl) | 68.8 |

# Hybrid Barley Gives Flexible Options for Wholecrop or Biogas Use

**Many farmers are now looking to grow hybrid barley as wholecrop for livestock or for biogas production in anaerobic digesters. Hybrid barley provides a flexible option as farmers can decide in season to cut the crop for wholecrop/biogas or to take it through to grain yield.**

**Hybrid barley has multiple benefits for this market:**

- **Flexible end use, can be taken to grain if farm requirements change**
- **High yielding**
- **High energy and biomass equivalent to hybrid rye**
- **Early harvest allows for early next crop entry and spreading the harvest load**
- **Enhanced Nitrogen Use Efficiency (NUE) compared to conventional varieties**
- **Grass weed suppression uniquely powered by hybrid vigour**

**"Hybrid barley provides flexibility to harvest for wholecrop, to top up the AD plant if maize stocks are low, or to harvest it for grain if cereal prices are buoyant and maize stocks are high."**

Suffolk Biogas Plant Farm Manager

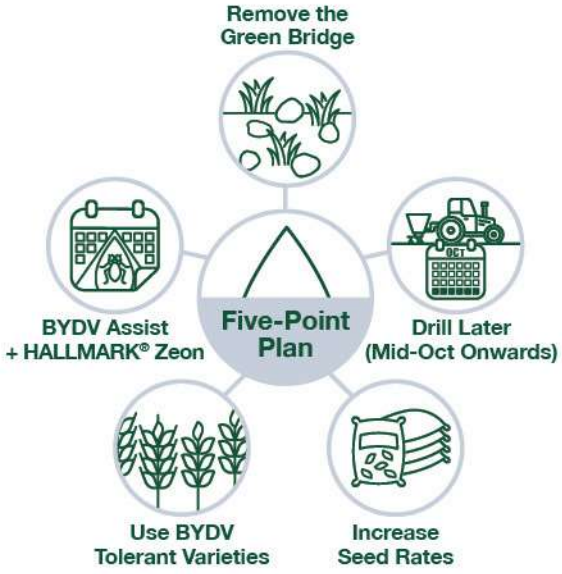
## BYDV Can Have a Significant Impact on Yield!

**The loss of key insecticide seed treatments means it has never been more important to take steps to manage BYDV on your farm.**

Tolerant varieties work well as part of an integrated BYDV management approach.

**BYDV tolerant varieties such as SY BUZZARD fit well in scenarios where:**

- BYDV risk is high
- Early drilling is a requirement
- Insecticide reduction is an ambition




## Hybrid Barley is a Useful Tool for Managing Grass Weeds

**Black-grass is competitive**

**Brome is very competitive**

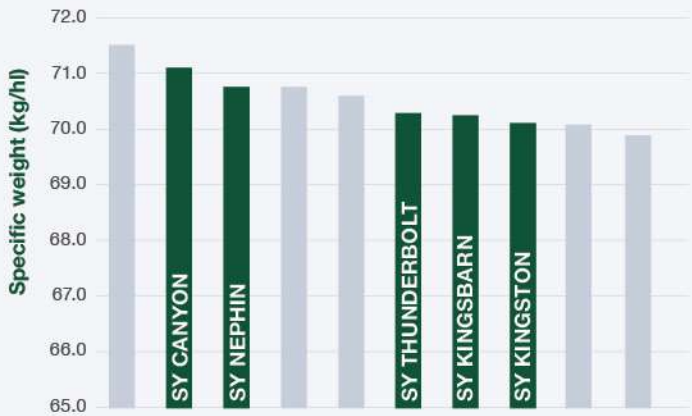
**Ryegrass is very competitive**

**More than £50/ha in increased yield due to black-grass suppression**

**Grass weed suppression: hybrid barley works well against the "troublesome trio".**

Over the past few years we have shown that hybrid barley can be an integral part of your strategy for managing grass weeds. Trials have shown that hybrid barley offers better suppression of black-grass, brome and ryegrass than winter wheat and conventional winter barley. This benefit, which is uniquely powered by hybrid vigour, is a common feature of all of our hybrid varieties.

## All Hybrid Barley Varieties Offer Good Specific Weight




Source: AHDB Winter Barley Recommended List 2024/25. Data shown for feed varieties only.

10

**Top 10 specific weights includes 5 hybrid barley varieties**

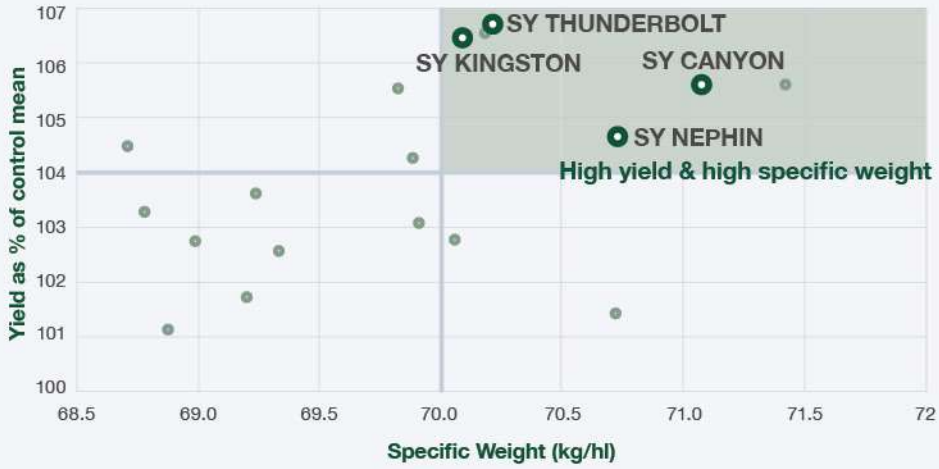
## Grain Quality

**Improved grain quality has been a key target for our breeding programme and the specific weight of our latest generation of hybrids is now equivalent to the two-row feed varieties.**


Source: AHDB Winter Barley Recommended Lists 2004/05 to 2024/25. Data shown for hybrids vs 2-row feed varieties.

## A Great Combination of High Yield and High Specific Weight

**Hybrid barley leads the way when it comes to yield and quality.**
Syngenta hybrid barley breeding expertise has targeted high specific weight and new varieties like SY NEPHIN demonstrate some of the highest specific weights on the current Recommended List.




Source: 2024/25 Winter Barley Recommended List

## Hybrid Barley is Easy to Grow

**Many growers have found that hybrid barley is an easy crop to grow successfully.**
On-farm experience over many seasons has shown that it pays to focus on six critical steps:

1. **Good autumn establishment** – variety, seed rate, seed treatment, seedbed & drill timing are all key
2. Apply **autumn insecticide to control BYDV** if required
3. **Early nitrogen is key**
4. **Appropriate growth regulation** with a programmed approach
5. Use a **robust** fungicide programme at T1 & T2
6. **Optimise** combine harvester set-up

# How to get the best out of your **Hybrid Barley**

**Once you have successfully established your hybrid barley crop, you should focus on managing the canopy and maintaining green leaf area for as long as possible.**

Optimising inputs including nitrogen, PGRs and fungicides will ensure your hybrid barley crop delivers its full yield potential.

Correct nitrogen timing and rate is crucial to get the best results from your hybrid barley variety. Syngenta trials have shown that early nitrogen is especially beneficial for hybrid barley, supporting vigorous spring growth, encouraging tillering and boosting grass weed suppression.

Trials in conjunction with ADAS have demonstrated that hybrid barley varieties have significantly enhanced Nitrogen Use Efficiency when compared to conventional barley varieties.

**Strong early spring growth and enhanced tillering deliver superior grass weed suppression.**

## Nitrogen Management Guidance

| Split | Timing | % of Total N |
|---|---|---|
| 1 | Early spring (approx. GS25) as soon as application is possible | 30 |
| 2 | At or just before GS31 (typically 3-4 weeks after first application) | 50 |
| 3 | 2-3 weeks after second application | 20 |

A 2-way split of 50%, 50%, 0% is a suitable alternative if on farm workloads are high.

Please consult a FACTS qualified adviser for specific advice in each field.

**A superior rooting structure, enhanced nutrient scavenging and underground competition with grass weeds.**

## Managing Your Hybrid Barley Crop During the Season

**All hybrid barley varieties show a good response to PGRs and we always recommend a programmed approach to PGRs to promote rooting, thicken cell walls & reduce crop height.**

Hybrid barley varieties have much larger flag leaves than conventional varieties. This difference in plant architecture means that both T1 & T2 fungicide applications are important to protect green leaf area and final yield.

## Fungicide and PGR Timings

| Timing | Fungicide | PGR | Why? |
|---|---|---|---|
| **T0 (GS30)** | KAYAK® 0.5-0.7 l/ha (plus partner if mildew or rust established) | MODDUS® 0.1-0.2 l/ha + chlormequat* | Remove overwintered disease in lush crops, protect new growth and support rooting |
| **T1 (GS31-32)** | ELATUS® Era 0.5-0.6 l/ha (plus folpet or KAYAK® depending on disease pressure) | MODDUS® 0.1-0.2 l/ha + chlormequat* | Keep lower leaves green, keep out disease and aid stem strengthening |
| **T2 (GS39-59)** | ELATUS® Era 0.67 l/ha + folpet (IF not used at T1) OR PTZ + SDHI/Strobe + folpet | Ethephon based product** | Drive final yield and maintain specific weight, reduce brackling |

*chlormequat at approx. 50% dose rate – various products and formulations exist
** avoid later applications after GS39 especially high risk if leaf sheath has split and ear is visible
Please consult a BASIS qualified advisor for specific advice in each field

# Seed Rates

**Some general guidance on seed rates suitable for our varieties is listed below in seeds/m²**

## Spring Crop Seed Rates

| | Before Jan | Jan - Feb | March | | April | |
|---|---|---|---|---|---|---|
| **Spring Barley** | | | | | | |
| **LAUREATE** | England 325 | England 350 | England 350-375 | Scotland 350-400 | England 375-400 | Scotland 400-425 |
| **FAIRING** | England 325 | England 350 | England 350-400 | Scotland 350-400 | England 400-425 | Scotland 400-450 |
| **SY SPLENDOR** | England 325 | England 350 | England 350-375 | Scotland 350-400 | England 375-400 | Scotland 400-450 |
| **WAGGON** | England 325 | England 350 | England 350-375 | Scotland 350-400 | England 375-400 | Scotland 400-450 |
| **SY TENNYSON** | | England 350 | England 350-375 | Scotland 350-400 | England 375-400 | Scotland 400-425 |

Selecting the correct **seed rate** for your chosen variety **is key to** optimal establishment

## Winter Crop Seed Rates

| | Earliest drilling date | Sept Wk1 | Sept Wk2 | Sept Wk3 | Sept Wk4 | Oct Wk1 | Oct Wk2 | Oct Wk3 | Oct Wk4 | Nov Wk1 | Nov Wk2 | Nov Wk3 | Nov Wk4 | Latest safe drilling |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Winter Wheat** | | | | | | | | | | | | | | |
| **GRAHAM** | 1st week of Sept | 275 | 275 | 275 | 300 | 300 | 325 | 325 | 350 | 350 | 375 | 375 | 400 | End Jan |
| **GLEAM** | 1st week of Sept | 275 | 275 | 275 | 325 | 325 | 350 | 350 | 350 | 375 | 375 | 375 | 400 | Mid Feb |
| **SY INSITOR** | Mid Sept | | | 275 | 325 | 325 | 350 | 350 | 375 | 375 | 375 | 400 | 400 | End Jan |
| **SY CHEER** | 1st week of Sept | 275 | 275 | 275 | 300 | 300 | 325 | 325 | 350 | 350 | 375 | 375 | 400 | End Jan |
| **Winter Malting Barley** | | | | | | | | | | | | | | |
| **CRAFT** | 1st week of Sept | 275 | 275 | 300 | 300 | 300 | 325 | 325 | 350 | 350 | 375 | 375 | 400 | End Dec |
| **ELECTRUM** | 1st week of Sept | 275 | 275 | 300 | 300 | 300 | 325 | 325 | 350 | 350 | 375 | 375 | 400 | End Dec |
| **SY VESSEL** | 1st week of Sept | 275 | 275 | 300 | 300 | 300 | 325 | 325 | 350 | 350 | 375 | 375 | 400 | End Dec |
| **FLAGON** | Mid Sept | | 275 | 300 | 300 | 300 | 300 | 300 | 325 | 325 | 350 | 375 | 400 | End Dec |
| **Hybrid Barley** | | | | | | | | | | | | | | |
| **HYVIDO** | Mid Sept | | | 200 | 200 | 200 | 200 | 220 | 220 | 250 | 250 | | | End Nov |
| **HYVIDO - grass weed** | Mid Sept | | | 250 | 250 | 250 | 250 | 275 | 275 | 300 | 300 | | | End Nov |

**The ideal drilling time for our varieties is shown in the tables above.**

Latest safe drilling date denotes the latest point at which varieties are likely to produce a viable crop. The decision to drill should be based on local conditions especially seedbed quality, soil type and weather.

Higher seed rates may be appropriate if emergence and establishment are expected to be severely compromised on heavy soils and in stony, cloddy or trashy areas of the field.

AgriCLIME

## What is AGRICLIME®?

AGRICLIME® helps growers offset the risks associated with adverse weather conditions during the growing season. Through AGRICLIME®, growers have the opportunity to receive a potential cashback depending on calculated rainfall (not actual rainfall) levels exceeding a trigger point within their selected weather window. For more information on Agriclime and how the rainfall is calculated go to our website www.syngenta.co.uk/agriclime

## AGRICLIME® example

1. West Haddon, Northampton:
   52.34081 -1.07526
2. Farm busines address:
   West Haddon, Northampton
3. Chosen Weather Window:
   Sep 15th 2023 – Oct 1st 2023
   Oct 1st 2023 – Oct 15th 2023
   Oct 15th 2023 – Oct 31st 2023

   Selected: Sep 15th 2023 – Oct 1st 2023
4. Total spend:
   £12,000 (100 ha hybrid barley)
   20 bags of seed
5. Rainfall trigger point:
   26.48 mm
6. Rainfall exit point (maximum pay out):
   168.141 mm
7. Maximum potential cash back:
   **£3,600** at 30% pay out

## Why AGRICLIME®?

AGRICLIME® allows farmers to gain the opportunity to invest in Syngenta's Hybrid Barley Seed while receiving valuable support to navigate the challenges posed by frequent adverse weather conditions impacting their drilling.

Delayed or postponed drilling can result in additional costs for seed or over-yeared germination tests. Syngenta is willing to share the risk from excess calculated rain during planting time.

**In 2022, 50% of growers who signed up to the Agriclime offer received a payout! In 2023, 99% of growers received a payout!**

AgriCLIME

syngenta.

# How does AGRICLIME® work?

Here is an example of the AGRICLIME® benefits based on a farmer buying £12,000 worth of Syngenta Hybrid Barley seed.

## Start of the Season

**1** 

**Sign up** & select fields in weather block

**Select** weather windows **2**

## Example weather window

**3** 

15.09.23 - 01.10.23
**Rainfall trigger:** 26.48 mm
**Rainfall exit:** 168.141mm

**Unique grower pay out criteria:**
1 mm = £25.41*

## End of Season (calculated rainfall 80 mm)

**4** 

**Weather window trigger activated?**
Yes

**Weather window trigger activated?**
No

**Exit offer**

**5** 

**Submit proof** of purchased Syngenta Hybrid Barley seed

**6** 

**Pay out**
Rainfall recorded = 80 mm
80 mm - 26.48 mm = 53.52 mm
**Total pay out: 53.52 mm x £25.41 = £1359.94**

**11.33% cash back on Syngenta Hybrid Barley seed cost**

*Figures based on this example, pay out per mm will vary depending on location and weather window. Figures are used to demonstrate process. Hybrid Barley seed cost based on £600 FGP/bag (10 million seed bag).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# Grow with us, reap the rewards.

The exclusive club
for Syngenta growers.

The Partnership Plan is our way of saying thank you for using Syngenta products to help you grow your best crop.

Partnership Plan

## Grow

Use your favourite Syngenta products throughout the year

## Reap

Let us know your products and cropping to receive points

## Reward

Use your points in our exclusive catalogue on a range of items

# 100s of Top Brands to Choose from...


Scan the QR Code to sign up today!

## Notes

## Notes

# Want to find out more?

Get **cutting edge insights** from our leading experts

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**Technical Enquiries**

0800 169 6058

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Consult a FACTS Qualified Adviser for advice and guidance on nitrogen applications.

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