

# AHDB Recommended Lists

## for cereals and oilseeds 2024/25



Produced in partnership with:



**80** YEARS **RL**  
1944-2024

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# RL review outcome

To see the results of the Recommended Lists review,  
please go to pages 8–9.

Use the fold-out flap at the back of the booklet to access the key for use with the tables.



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# About the RL

The first recommended list was published 80 years ago, by NIAB in 1944. It featured a limited number of winter wheat varieties – four breadmaking, seven biscuit-making and four with ‘limited’ uses for milling and baking – and had no yield data. The variety-trialling project has come a long way since those early days. The RL now incorporates 11 crops and provides information on yield, quality, disease resistance and agronomic traits in recommended and descriptive lists.

## RL purpose

The purpose of the cereals and oilseeds RL is to provide an industry-wide perspective of the most appropriate varieties for different users in an impartial, timely and cost-effective way.

## RL consortium

The RL is run in partnership with a consortium of the British Society of Plant Breeders (BSPB), The Maltsters’ Association of Great Britain (MAGB), UK Flour Millers (UKFM) and AHDB. Consortium members contribute cash and in kind to the project. The consortium is governed by a legal agreement.

## RL project board

The RL project board ensures the proper management of the RL project. Consortium members nominate individuals to sit on the RL project board. The Agricultural Industries Confederation (AIC) also nominates an individual.

## RL crop committees

The RL project board delegates technical decisions to three crop committees, which cover wheat, barley, oats and other cereals, and oilseeds. The committees represent the whole supply chain to ensure that listed varieties meet the needs of the varied users. Members include farmers, agronomists, processors (such as millers and maltsters), BSPB representatives, pathologists and grain traders. AHDB staff are not members.

Each committee is chaired by a farmer or agronomist. Farmer and agronomist members, along with some

technical experts, are appointed by AHDB after a competitive recruitment process. Other committee members are appointed by the organisations they represent.

## Recommendation process

The RL crop committees meet three times a year: in spring (to agree changes to the recommendation and trial processes), in summer (to select varieties to add to the RL trials) and in autumn (to select varieties to add or remove from the lists). Decisions made by the crop committees must be ratified by the RL project board.

## New recommended varieties

New varieties must show a positive ‘balance of features’ (compared with varieties on the lists) to be added to the trials and be recommended. This could include advantages in yield, pest or disease resistance, agronomic characteristics and quality characteristics (or a combination).

Yield is compared against the highest-yielding listed varieties. ‘Comparator’ varieties are used to assess pest, disease and quality traits – these are recommended varieties with strong agronomic and/or quality characteristics. See Figure 1 for criteria of recommendation and re-sowing.

Characteristics are assigned different levels of importance. For example, septoria tritici disease resistance has a higher level of importance than mildew disease resistance.

The characteristics and their importance are determined by the RL crop committees and defined in the RL crop committee handbook: [ahdb.org.uk/rl-protocols](http://ahdb.org.uk/rl-protocols)

## New described varieties

A new described variety is added to the lists if the breeder enters it into the RL trial system. There are no yield or agronomic targets for described varieties.

## Reviewing and removing recommended varieties

Typically, recommended cereal varieties are removed from RL trials when their market share falls below 2%

(based on certified seed production) and from the list the following year. However, varieties with low market share may remain on the list if they have an important market niche or are the sole representative of recommendation for a specific use.

Oilseed rape varieties have rapid turnover and are removed from trials and, subsequently, the list after two years, unless they are still very widely grown.

Any variety can be called for review by the crop committees, if an issue is identified. Any variety withdrawn by the breeder is removed immediately.

Varieties removed from the latest RL are detailed in the table footnote (see ‘Varieties no longer listed’).

## Removing described varieties

Described varieties are removed when seed is no longer available or the breeder or UK contact withdraws the variety.



Figure 1. Criteria for recommendation and re-sowing

# Using the RL

## Reading the RL tables

For each crop (recommended and described), variety characteristic data is presented in a table.

Data is also available on the RL app, variety selection tools and AHDB website (online PDF and Excel tables).

For more information on variety comments and varieties grown in trials but not added, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

## Type of list

### Recommended lists

Recommended lists present data from many trials. Recommended varieties are considered to have the potential to provide a consistent economic benefit to the UK industry.



### Descriptive lists

Descriptive lists show trial data for spring oilseed rape, spring linseed, winter triticale and winter rye. The data is for varieties for which seed is likely to be available. Data on described varieties is more limited and care should be taken when interpreting differences between varieties. A place on the descriptive list does not constitute a recommendation.



### A Described varieties for the major crops

These varieties are usually for niche markets. Although recommendation is not appropriate, there is demand for descriptive data within the RL system. These varieties are displayed to the right of the main RL tables (in a straw colour).

## Candidate lists

Current candidate varieties are published, along with the UK contact, after each main table, in this booklet. Candidate varieties are usually in their first or second year of RL trials, having completed at least two years of GB and NI Variety Lists (VL) trials. If data is sufficient, they are considered for recommendation in the autumn.



Once candidate varieties have been added to the VL, yield and agronomic data is published in the candidate lists on the AHDB website and on the RL app.

### B Variety scope and status

This information mainly features in the top rows of each table.

Most tables group varieties by market or variety type.

### Scope of recommendation

This may refer to a UK, regional recommendation, or a specific recommendation for an end use or agronomic feature of interest to a limited number of growers. Specific recommendations are noted by 'Sp' in the tables, with an explanation in the footnote.

### Variety status

**NEW** highlights new varieties to the current lists.

'\*' indicates that the variety is no longer under test in trials (these varieties usually remain on the list for a further year).

'c' denotes control varieties – established varieties are selected as controls (control varieties that are no longer listed are cited in the table footnote).

**C** The tables also include additional rows (at the bottom) on the 'Status in the RL system'. These state the year first listed and show whether the variety is in the first (P1) or second (P2) year of listing.

## Winter oilseed rape 2024/25

	Hybrid			Conventional open-pollinated		Described	Average LSD (5%)
	LG Armoada	Turing	Tennyson	Pi Pinnacle	Aspire	PX131	
Variety type	Hybrid	Hybrid	Hybrid	Conv	Conv	Hybrid	
Scope of recommendation	UK	UK	E/W	UK	N	UK SD	
Variety status	NEW		*	NEW	C		
<b>Gross output, yield adjusted for oil content (% treated control)</b>							
United Kingdom (5.1 t/ha)	107	106	96	102	96	88	4.2
East/West region (5.0 t/ha)	106	106	97	103	96	88	4.8
North region (6.0 t/ha)	107	105	93	101	98	92	4.7
<b>Untreated yield (% untreated control) – UK<sup>a</sup></b>							
Gross output (5.3 t/ha)	-	103	94	-	96	86	6.4
<b>Disease resistance</b>							
Light leaf spot (1–9)	7	7	7	7	7	6	0.6
<b>Agronomic features</b>							
Resistance to lodging (1–9)	[8.0]	[7.9]	[7.8]	[8.0]	[7.9]	[8.0]	0.1
<b>Seed quality (at 9% moisture)</b>							
Oil content, fungicide-treated (%)	45.5	44.4	44.8	44.4	45.2	46.0	0.3
<b>Breeder/UK contact</b>							
Breeder	LimEur	NPZ	SyP	Pick	LimEur	PionOS	
UK contact	Lim	LSPB	Eis	GSd	Lim	Cor	
<b>C Status in RL system</b>							
Year first listed	24	23	22	24	19	20	
RL status	P1	P2	*	P1	-	-	

Figure 2. Sample RL table

## Variety data

The tables provide full details of yield, disease resistance, agronomic features, main market options and quality for each listed variety.

For some crops, supplementary data is available. For example, this may cover annual yield and yield on different soil types and rotational positions.

## Yields

Yields are calculated as a percentage of the controls and the average yield of these varieties is set to 100%.

For example, if the average yield of the control varieties is 10.2 t/ha, a variety that yields 10.4 t/ha will be shown as having a yield of 102%. The average yield of the control varieties is noted next to each yield character on the table.

Varieties are presented in UK fungicide-treated yield order within their market or variety group (highest on the left).

## Ratings

Some characteristics are rated on a 1–9 scale, where a higher figure indicates that a variety shows the characteristic to a higher degree, such as higher resistance. Further explanation is given for some characteristics in the 'RL trialling system' section of this booklet.

## Data interrogation

Although some data is presented to 0 decimal places in the booklet, the data can be viewed to 1 decimal place in the online Excel tables, but users should be cautious of overinterpreting small differences between varieties.

The online variety selection tools ([ahdb.org.uk/vst](http://ahdb.org.uk/vst)) can be used to further navigate RL data, make comparisons and identify the most promising varieties for your unique situation.

For further information on the recommendation process, including the basis on which varieties are recommended and individual trial results, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

## Statistical significance (LSD)

Natural variability within and between trials means that smaller differences (between mean characteristics of varieties) may be due to chance.

For most numerical characteristics, an average LSD (least significant difference) is published in the final table column.

Differences between variety means that are larger than the LSD are likely to reflect genuine differences, as they would only occur by chance fewer than 1 in 20 times (5%).

Differences smaller than the LSD are more likely to occur by chance and should be treated with caution.

## Bracketed data

Data inside brackets [ ] or double brackets [ [ ] ] is from a limited number of trials and should be treated with caution compared with unbracketed figures. Double bracketed data is from an especially small data set.

## Missing data

A dash (-) indicates missing data. Data may be missing because the variety was not tested for the trait or because there is insufficient data to produce a reliable rating or measure.

## Additional information

The meaning of the symbols used to note crop or variety specific information is explained in the fold-out key at the back of this booklet.

Further information about the varieties can be obtained from the variety breeder and/or UK contact. Contact details are on page 47.

## Parentage

Parentage information indicates the genetics that a variety may have inherited (not what it has inherited).

This information (where known) is in the RL app, variety selection tools and variety comments available at [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

# Latest market information

## Market Report

Commentary on prices and key events that affect global grain and oilseed markets (weekly email).

## Grain Market Daily

Commentary and analysis on global and domestic grain and oilseed markets (Tuesday–Friday).

Sign up:  
[ahdb.org.uk/keeping-in-touch](http://ahdb.org.uk/keeping-in-touch)

# RL trialling system

## Data sources

RL data comes from several sources. Data on yields and agronomic characteristics is from trials conducted for VL and RL purposes. Data from the VL trials is the property of the breeders of the varieties and is provided to the RL as an in-kind contribution.

Samples from VL and RL trials are used for malting, baking and distilling quality tests. The tests are done by laboratories and end users – MAGB, UKFM and the Scotch Whisky Research Institute (SWRI).

MAGB, UKFM and SWRI decide which varieties are suitable for their uses.

## Data quality

VL and RL trials are replicated, randomised small plot trials, conducted by third-party companies.

All VL and RL trials are inspected by AHDB trial inspectors to ensure they are fit for purpose. Raw data from trial operators is received by AHDB, checked for errors or anomalies and validated by our technical experts before being included in the RL data set.

Where a trial is adversely impacted, some plots may be excluded from the data set. A whole trial may be rejected when impacts are severe. A trial rejected for yield may still provide useful information and may be used in other AHDB analyses.

## Trial locations

Most trials are hosted on commercial farms. Generally, the spread of the trials reflects the national distribution of commercial crops. However, the North region has extra trials to provide sufficient data to create recommendations for this region.

Within a region, trials may be sited on specific representative soil types, such as wold soils in East Yorkshire.

Further information on regions and trial locations is provided in this booklet and online:

[ahdb.org.uk/harvest-results](https://ahdb.org.uk/harvest-results)

## Disease trials

Specific trials are conducted to help calculate disease ratings. Located in areas with traditionally high disease pressure, these trials may be naturally infected or inoculated. Disease data is also taken from fungicide-untreated yield trials and disease observation plots.

## Lodging trials

Dedicated trials are used to test the straw strength of cereal varieties. Located across the country, these trials receive no plant growth regulators (PGRs) and may have additional nitrogen applied to encourage lodging. They are not taken to yield. Lodging data from yield trials (when it occurs) can be included in the lodging rating calculations.

## Trial management

### Cultivations

Trial cultivations follow the practice of the host farm. Trials in the North and Scotland tend to be ploughed, while trials towards the South are established after a range of reduced cultivations or plough. Some oilseed rape trials are direct drilled.

Information on the tillage system used for each trial site is published on the RL harvest results page:

[ahdb.org.uk/harvest-results](https://ahdb.org.uk/harvest-results)

### Drilling

Trials are drilled as close to commercial timings as possible and within a couple of days of the host farm crop. Trials use commercial seed rates adjusted to hit specified spring plant populations (with lower seed rates for hybrid varieties) based on conditions at drilling.

## Inputs

### Crop nutrition

RB209 guidance ([ahdb.org.uk/rb209](https://ahdb.org.uk/rb209)) is followed, with the aim to ensure that yield is not limited by lack of nutrition. Rates for some trials are adjusted to meet

specific quality targets, such as bread milling in wheat and malting quality in barley. Samples from these trials may be used for end-user quality testing.

## Herbicides and insecticides

Herbicides and insecticides are applied as required to control weeds and pests. Commercially available products and rates are used following best local practice.

## Fungicides

The fungicide programme followed aims to control all diseases and ensure that no variety is disadvantaged.

Commercially available products are used at or below label rates at conventional timings. Fungicide-treated yield trials where disease exceeds 10% may be excluded if the fungicide protocol has not been followed.

## Plant growth regulators (PGRs)

PGRs are applied to some trials to reduce the chances of lodging. Commercially available products and rates are used at conventional timings.

## Protocols

The protocols, including fungicide programmes, are developed by panels of industry experts for the RL and VL systems. This is so that, wherever possible, the systems are aligned.

Actives and products that are being withdrawn or are in a use-up period are not used.

For more details on trial protocols, please see [ahdb.org.uk/rl-protocols](https://ahdb.org.uk/rl-protocols)

# Trial agronomy

## Standing power

### Lodging

Lodging is a permanent displacement of a stem or stems from vertical posture by more than 45 degrees. Lodged stems may initially lean (less than 45 degrees).

Lodging scores are calculated for varieties grown with or without PGR application. Lodging scores are relative to other varieties in trial, so scores with and without PGR are not directly comparable. For example, a rating of 6 with PGR is not the same as a rating of 6 without PGR.

Lodging ratings are also not comparable across crops. For example, a winter oat variety with a rating of 6 will lodge more than a wheat variety with a rating of 6. Lodging data is also given as a percentage. Percentage data should be treated with caution as a low percentage lodging may result from several years without lodging conditions.

Lodging in winter oilseed rape is assessed at or around the time of flowering.

### Stem stiffness (winter oilseed rape)

Stem stiffness is the assessment of lodging at maturity and close to harvest.

### Brackling (barley)

Brackling is folding or breaking of the stem that occurs higher up the plant than in stem lodging (which occurs close to or below the ground).

Assessments are carried out on winter and spring barley at harvest. A high number on the 1–9 scale, or a low percentage, indicates high resistance to brackling.

## Maturity

### Ripening (cereals)

Ripening is a loose term to describe changes that occur in the grain between completion of growth and maturity. It is expressed as days earlier or later than a standard variety. Varieties with a negative number are earlier to mature than the standard variety. The numbers are from RL trial data. Differences can be far greater on farm.

### Earliness of maturity (oilseeds)

Maturity is based on the degree of canopy senescence. Earliness of maturity is scored on a 1–9 scale, where 1 is late and 9 is early. It is recorded just prior to swathing or desiccation.

### Earliness of flowering (oilseeds)

An oilseed rape crop is considered in full flower when 50% of the flowers on the main raceme are open. In spring linseed, this is considered to be when the earliest variety is in full flower. Earliness of flowering is scored on a 1–9 scale, where 1 is late and 9 is early. Flowering is on a relative scale, with the earliest-flowering variety scoring 9.

### Sprouting (wheat)

Sprouting resistance is based on specially irrigated test plots, used to simulate wet harvest conditions. Sprouting is scored on a 1–9 scale, where 1 is low resistance and 9 is high resistance. Data is limited, so in the absence of a score, the Hagberg Falling Number (HFN) may provide some guidance – a variety with a low HFN may be prone to sprouting.

## Pest and disease

### Basis of resistance

Varietal resistance to pests and diseases forms the foundation of integrated pest management (IPM). There are two general types of resistance, based on ‘minor’ and ‘major’ genes. Individually, minor genes give a low level of resistance but can be combined to give moderate to high resistance. This type of resistance is usually durable. Alone, major genes can give a high level of resistance but may be overcome by specific pathogen strains relatively soon after a variety is released.

Important exceptions are the strong *mlo* resistance to mildew in spring barley and the moderate resistance to eyespot from *Pch1* in wheat, which have been durable for many years.

The durability of new sources of resistance can be difficult to predict. Therefore, in-season monitoring of all varieties is important. A new major gene may be more durable when it is combined with a background of minor genes. As pathogen populations change, previously overcome genes may become effective again, so varietal disease ratings can go up as well as down.

### Disease resistance ratings

Scores for disease resistance are based on a combination of natural infection and inoculated trials. Information is only used where relatively high levels of disease are present. This helps prevent low disease pressure being mistaken for resistance. Varieties with ratings of 4 or less can be interpreted as susceptible, and varieties with ratings of 8 or 9 as having high levels of resistance. However, the ratings do not indicate the durability of the resistance.

The disease rating scales are not linear (except for eyespot). A difference of 1 on the scale reflects a larger difference in disease susceptibility at low ratings than at high ratings.

Disease resistance ratings should be used alongside the treated and untreated yield data (and local disease pressure information) to estimate the potential yield loss associated with reducing fungicide inputs.

For more information, see the crop-specific overview pages.

# RL review

Recent feedback and reviews continue to highlight the RL's value to growers and the wider industry.

In the 2022 Shape the Future vote, RL activity scored 4.2 out of 5 for importance – the highest score of all Cereals & Oilseeds activities.

For this reason, the AHDB Cereals & Oilseeds sector plan (2022–2027) committed to review the RL to develop it in line with your needs.

We received over 900 responses, with further thoughts and ideas gathered during focus groups and stakeholder interviews.

You helped us identify areas to improve the RL. Some can be delivered quickly; others, such as where new trials are needed, will take more time and resources.

For example, RL 2024/25 features information on oilseed rape resistance to verticillium stem stripe for the first time.

The need for this disease data was identified in the previous RL review and is the culmination of nearly a decade's worth of research investment.

## What is important to you when selecting a variety?

In the questionnaire, you told us that pest and disease resistance is the most important feature when selecting a variety, with 88% of respondents rating it 4 or 5 out of 5 for importance (Figure 3).

Other features were also highlighted as being of high importance, including agronomic features, yield and grain quality.

In response to this feedback, we have changed the layout of RL tables and put pest and disease ratings in a more prominent position (nearer the top of tables).

Additionally, the RL crop committees and RL board are using the results of the RL review to ensure that recommended varieties continue to meet your needs.

Thank you to all those who completed the RL review questionnaire (mailed out with the RL 2023/24 booklet).

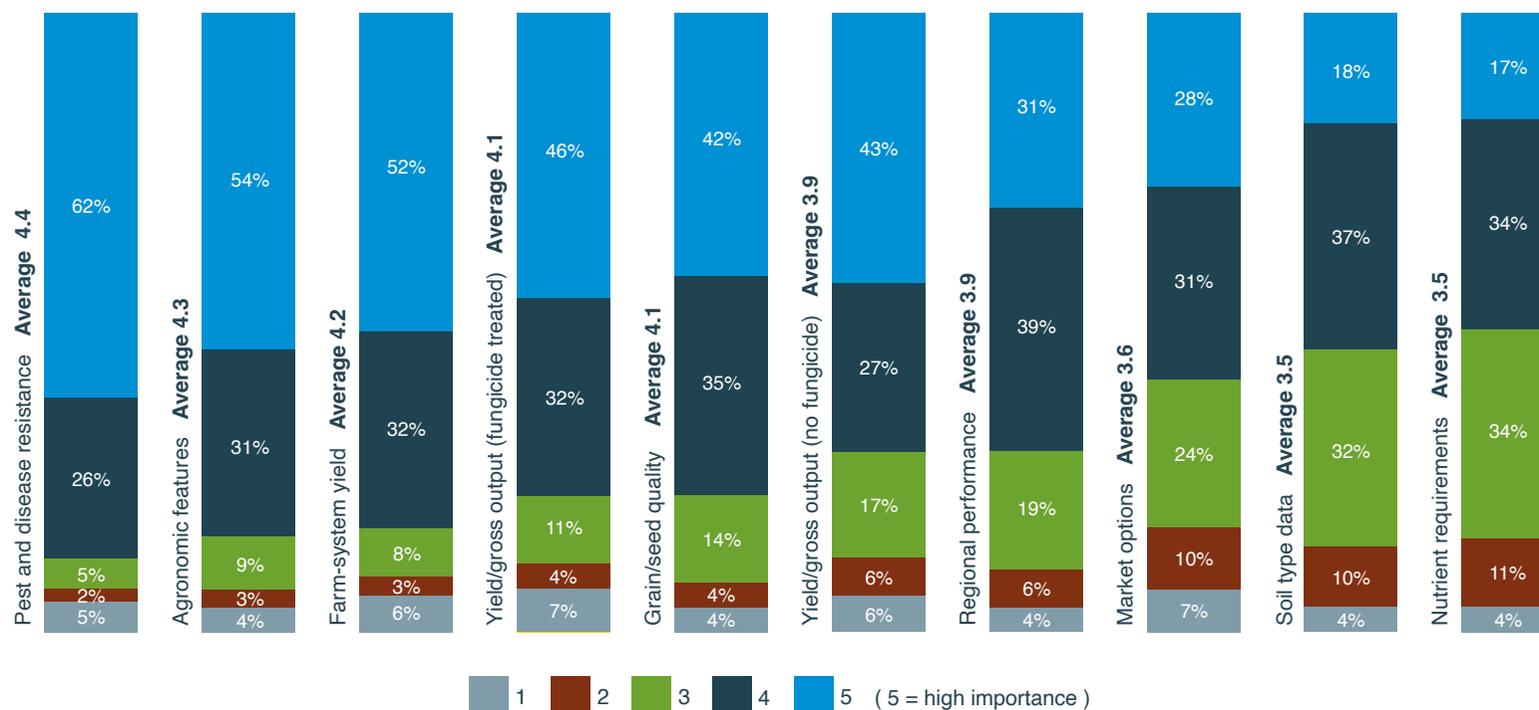


Figure 3. Results from RL review question – When selecting a variety how important are the following features?

## What new information could be provided?

There were many requests to provide new information through the RL. Some related to varietal performance under lower inputs, as well as crop physiological characteristics.

Work is underway to examine existing information on varietal differences, including under different fungicide programmes and to consider how information could be made available, either through the RL or other activities.

Provision of information on new traits or characteristics does not always mean that new trials are needed. We will investigate new ways to analyse and interrogate current data sets to provide additional information on varietal performance.

## How has the RL presentation been improved?

You told us that the RL publication is used and highly valued, but there were opportunities to make improvements.

During events in 2023, over 300 farmers and agronomists voted on alternative publication formats, with 72% voting for the same option.

This edition features improved formatting based on the feedback.

## Ongoing developments

We will continue to look at accessibility of information and the ways in which we communicate the RL.

You asked us to help you personalise RL information. While the RL variety selection tools enable interrogation of data sets, we will use levy payer feedback to further develop our online tools.

For further information on the RL review, visit [ahdb.org.uk/rl-review](https://ahdb.org.uk/rl-review)

If you have any feedback on the RL, please contact us at [rl@ahdb.org.uk](mailto:rl@ahdb.org.uk)

## Improvements to the RL presentation

### You asked us:

To avoid splitting variety information over several pages.

### We delivered:

We now use double pages to connect the information, with a fold-out key added to the back cover.

### You asked us:

To add a comparison feature within the RL app.

### We delivered:

This feature was made available in November 2023.

### You asked us:

To make it easier to find information on previously recommended varieties.

### We delivered:

We released a variety index tool to help you navigate the RL archive in November 2023.

# Recommended Lists app

RL

## Delivering the latest variety data to your fingertips

Now includes a variety compare feature.



Available on Google Play and App Store



[ahdb.org.uk/rl](https://ahdb.org.uk/rl)

# Join the RL team

**Industry views are vital to ensure that the RL delivers varieties that farmers want to grow.**

AHDB appoints farmers and agronomists to the RL crop committees (see page 3) to be the voice of the farmer.

We need people who are passionate about variety development and the future of cutting-edge crop variety trials.

Farmer and agronomist crop committee members, along with grain traders and pathologists, are appointed after interview and can serve up to two consecutive three-year terms.

## What does it involve?

The RL crop committees:

- Agree on agronomic and quality definitions for varietal recommendation
- Select candidate varieties for trial
- Propose new varieties to add to the RL

Committee members meet three times a year – generally, May/June, August/September and November.

Successful candidates receive support and reasonable allowances to cover costs during their three-year term(s).

Vacancies are advertised in winter on the AHDB website:

[ahdb.org.uk/rl-board-and-committees](http://ahdb.org.uk/rl-board-and-committees)



# Wheat overview

## Yield

### Fungicide-treated yields

Fungicide-treated yields are calculated from trials that receive the full fungicide and PGR programme. Other inputs are applied according to best local practice.

### Fungicide-untreated yields

Fungicide-untreated yields are calculated from trials that do not receive fungicides. They do receive PGRs. Other inputs are applied according to best local practice.

### Yield in early-sown trials (winter wheat)

Yields are calculated from a specific set of trials sown (with reduced seed rates) before 25 September.

Trials are mostly located in northern England and Scotland, where early sowing is still relatively common (due to lower black-grass pressure). The trials receive the full fungicide and PGR programme. Other inputs are applied according to best local practice.

Data is included in the 'Early sown (before 25 Sep)' table row but not the main yield data set.

### Yield in late-sown trials (winter wheat)

Yields are calculated from a specific set of trials sown (with increased seed rates) after 1 November and before 1 February (usually after a root crop). The trials receive the full fungicide and PGR programme. Other inputs are applied according to best local practice.

Data is included in the main yield data set.

Yield in early and late-sown trials should not be compared directly with the main data set (as trials are in different areas).

### Yield on different soil types (winter wheat)

Trials are located on soil types that are representative of the region. Soils in RL trials are classified using the system in RB209 ([ahdb.org.uk/rb209](http://ahdb.org.uk/rb209)), with about half of the trials located on medium textured soils.

## Regional yields (winter wheat)

Regional yields are based on fewer trials and should be treated more cautiously. Using percentage of controls data to compare varieties across regions is not valid due to differences in the yield of the control varieties.

Divisions between regions are not absolute and growers are advised to consider which region is most appropriate for their conditions (Figure 4).

Spring wheat has a smaller growing area with fewer trials. They are considered as one UK region as there are insufficient trials to calculate reliable regional yields.

## Agronomic traits

### Latest safe-sowing date (winter wheat)

Wheat sown after the latest safe-sowing date may fail to vernalise, flower and produce grain. Heading information is obtained from sequential sowings in the spring in specialist vernalisation trials. If considering sowing after the latest safe-sowing date, contact the breeder or UK contact first.

### Speed of development (winter wheat)

Speed-of-development trials ceased in 2021, due to relatively high costs and low data quality. For information on this characteristic, contact the breeder or UK contact.

### Breeder's claims

Some characteristics are presented as a 'breeder's claim'.

Accepted claims are associated with clear genetic markers that allow breeders to verify if a variety has inherited the trait.

For wheat, claims are:

- Orange wheat blossom midge resistance
- *Barley yellow dwarf virus* resistance (BYDV)
- *Pch1* eyespot resistance

Such claims are not verified in RL tests. For information on these claims, contact the breeder or UK contact.

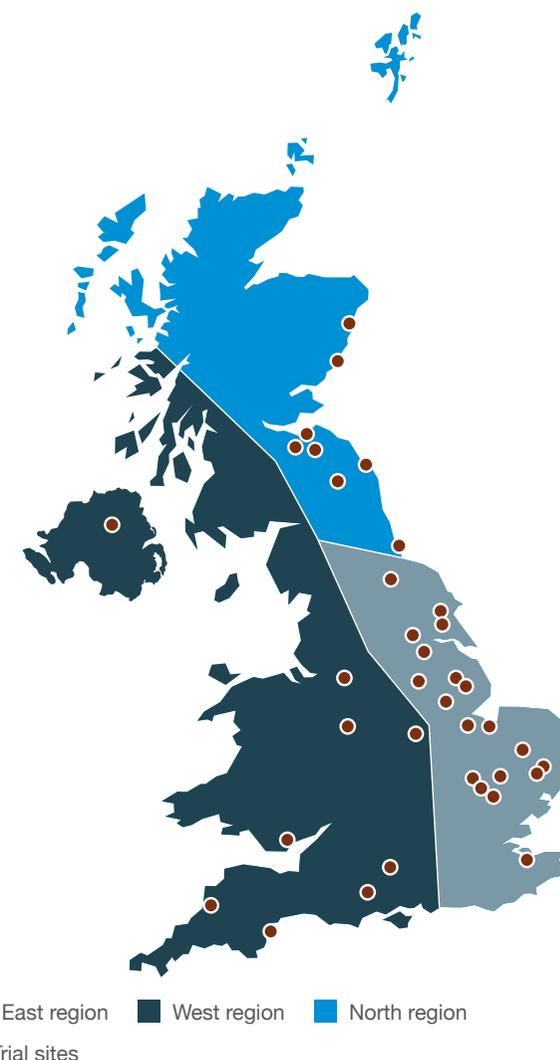


Figure 4. Winter wheat regions used for calculation of regional yields and location of harvest 2023 RL winter wheat fungicide-treated yield trials

For technical commentary on each recommended and described variety, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

## Wheat disease updates

### Septoria tritici

Due to different seasonal effects, high septoria levels were observed in many areas during 2023. However, as the disease rating calculation takes into account year-to-year variation, ratings have not reduced across the board and the most resistant varieties retain their high ratings.

The re-emergence of septoria isolates since 2021 that have affected varieties with Cougar in their parentages does not appear to have caused further significant changes in RL 2024/25.

Later sowing reduces septoria risk, with the effect quantified by an ADAS-led AHDB project (Figure 6). For example, a 22 September drilling date decreases the septoria disease rating by the equivalent of 0.6 (increasing risk) compared with a 7 October drilling date. Conversely, delaying drilling to 20 October increased the rating by the equivalent of 0.6 (decreasing risk).

Later sowing can also reduce the severity of other diseases, including eyespot and take-all, but may increase levels of yellow rust.



Figure 5. Septoria infected leaf

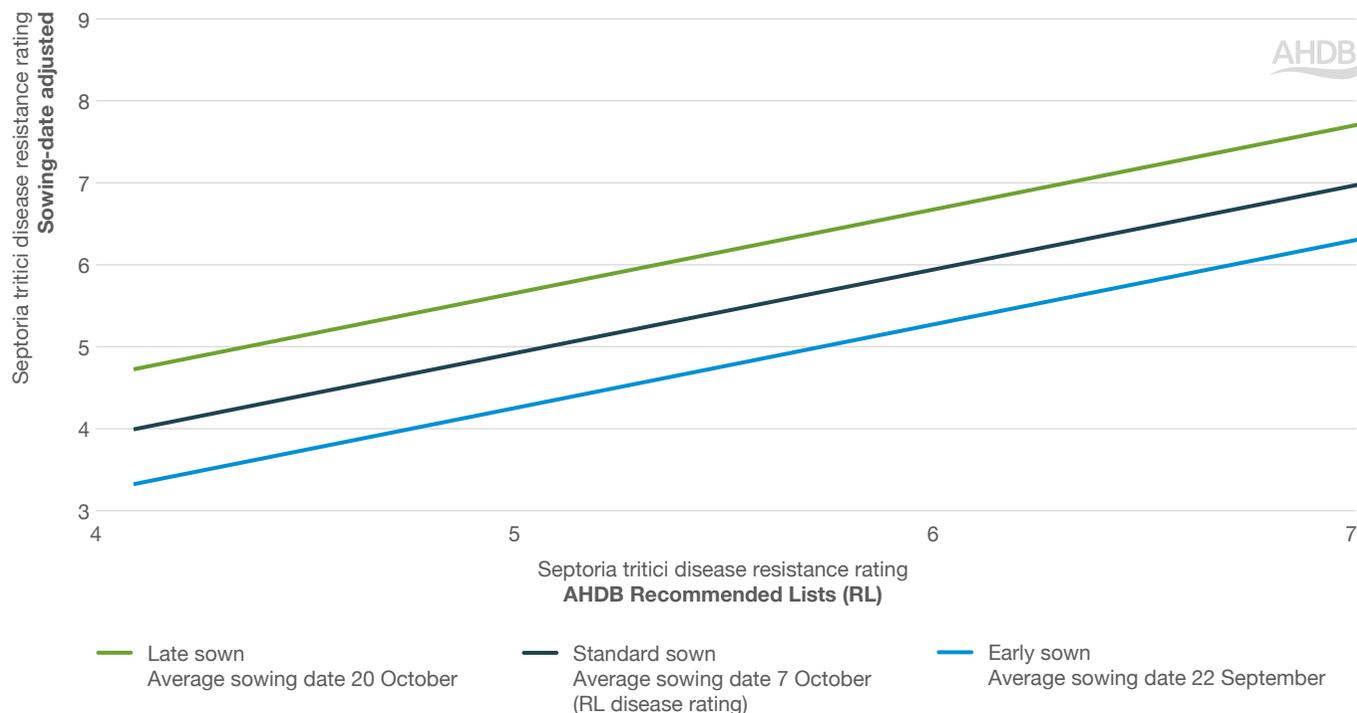


Figure 6. Graph to quantify the impact of drilling date on septoria tritici disease resistance rating

### Eyespot

In general, the relationship between naturally infected and artificially inoculated eyespot data has deteriorated over several years. As a result, RL 2023/24 disease ratings were based on naturally infected data only. The 2023 season was more conducive to the disease and so there has been more data this year compared to those previous. We have also seen the relationship between naturally infected and inoculated data improve in 2023. Therefore, eyespot ratings in RL 2024/25 use both data sets.

No varieties, even those with the *Pch1* resistance gene, have complete resistance to eyespot. Fungicides also only offer partial control. Eyespot risk varies depending on region, soil type, previous crop, spring rainfall, drilling date and tillage practices.

Use the AHDB eyespot risk assessment to guide the targeted use of fungicides: [ahdb.org.uk/eyespot](https://ahdb.org.uk/eyespot)

### Yellow rust

Winter wheat features two broad types of resistance to yellow rust. Adult plant resistance provides protection from around stem extension onwards, although timing is variety specific. The RL yellow rust disease ratings (1–9 scale) are based on this type of resistance. Young plant resistance is effective at all growth stages. Some varieties are susceptible at the young plant stage but develop some level of adult plant resistance.

Each year, the United Kingdom Cereal Pathogen Virulence Survey (UKCPVS) selects five yellow rust strains (isolates) that best represent the diversity in the population. These are used to test whether recommended and candidate varieties in RL trials are resistant (r) or susceptible (s) to yellow rust at the young plant stage.

Since RL 2023/24, young plant resistance statuses have been presented alongside adult plant resistance ratings (see pages 16–19).

For updated information on young plant resistance, see [ahdb.org.uk/ukcpvs](https://ahdb.org.uk/ukcpvs)

### 'Watch lists' for rusts

Since rust populations can change rapidly, AHDB produces yellow and brown rust 'watch lists'. These show varieties that were performing out of line at some sites in the previous season, which could be an early indication of a new disease strain.

On the watch lists, look out for varieties with relatively high disease ratings that are relatively low down the watch list tables. Monitor these varieties frequently. Be prepared to increase use of rust-active fungicides in the programme.

The watch lists are updated each year in the spring: [ahdb.org.uk/watch-list](https://ahdb.org.uk/watch-list)

### Brown rust

The 2023 brown rust watch list highlighted that Theodore (rated 8 for brown rust, RL 2023/24) performed worse than expected at some sites. Although Theodore is not included in RL 2024/25, it was included as a disease control in the 2023 trials. Once again, it was associated with higher levels of disease than expected (across many sites). The UKCPVS analysed a brown rust sample from Theodore (collected in 2022) and identified a new strain. Out of the 25 samples tested by the UKCPVS in 2022, three were confirmed to be identical to the novel strain found on Theodore. This strain does not appear to have overcome resistance in other varieties.



Send infected wheat and barley leaf samples to UKCPVS to help us investigate changes to pathogen populations.

Find out how to submit a sample:  
[ahdb.org.uk/ukcpvs](https://ahdb.org.uk/ukcpvs)

## Markets for wheat

Wheat varieties are grouped by end use. The largest single market for quality wheat is for flour production. Other uses include cereals foods, distilling, starch production and biofuels. Different uses require specific quality traits and only certain varieties may be suitable. It is important to understand the variety and quality requirements of the market you are targeting. Farmers should speak to merchants before committing to varieties to ensure a suitable end market.

### UKFM groups

UKFM commissions quality testing (using commercial laboratories) for bread and biscuit-making varieties to categorise varieties into three milling groups:

**UKFM Group 1:** bread-making varieties with consistent milling and baking performance.

**UKFM Group 2:** varieties with bread-making potential but not suitable to all grists.

**UKFM Group 3:** varieties used for biscuits and cakes.

### Distilling quality

SWRI conducts distilling testing of wheat varieties. Based on the results, they give varieties a rating of good, medium or poor. Good and medium ratings are included in the variety comments published each January at [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

### Grain quality

#### Protein content

Most RL trials are grown with the appropriate amount of nitrogen fertiliser for feed varieties. Some trials are grown to a milling specification, with additional nitrogen added to meet bread-making protein specification. The 'Protein content (%) – milling spec' data from these trials is included in the winter wheat table.

#### Hagberg Falling Number (HFN)

The HFN test provides an indication of the level of alpha-amylase in the grain. At the onset of germination, the levels of this enzyme can elevate a thousand-fold and will result poor-quality loaves with a sticky interior. In the laboratory, a suspension of flour is heated in water for a fixed period. The time in seconds taken for a plunger

to fall through the resulting gel is recorded as the 'Hagberg Falling Number'.

### Specific weight

Specific weight is the weight of grain (corrected for variation in moisture content) when packed into a standard container. It is expressed in kilograms per hectolitre (100 litres) and is an important indicator of the physical quality of wheat.

### Chopin Alveograph

The Chopin Alveograph test determines W and P/L values. W is a measure of the baking strength of a dough, with a higher number representing a stronger flour. P is the maximum pressure required to burst a dough bubble, whereas L measures the extensibility of a dough (time taken for a bubble to burst). A low P/L measure represents a dough that is very extensible with low strength.

Table 1. Typical specifications for milling wheat

	UKFM Group 1	UKFM Group 2	UKFM Group 3		
Minimum specific weight (kg/hl)	76	76	74	76	75
Maximum moisture content (%)	15	15	15	14	14
Maximum admix (%)	2	2	2	2	2
Minimum Hagberg Falling Number (HFN; s)	250	250	220	250	220
Protein content (%)	13.0	12.5	11.5	11.0–13.0	10.5–11.5
Chopin Alveograph W	-	-	-	170 (min)	70–120
Chopin Alveograph P/L	-	-	-	0.9 (max)	0.55 (max)



= meets the specification for **ukp** bread wheat for export



= meets the specification for **uks** biscuit wheat for export

## Exports

There is a core market overseas for UK-grown quality wheat. Growers can capitalise on this opportunity when choosing varieties to grow. However, distance to a port needs to be considered.

Overseas buyers have different requirements to domestic buyers and may be unfamiliar with UK varieties. The AHDB **ukp** (hard bread wheat) and **uks** (soft biscuit wheat) classifications help these buyers understand grain quality by focusing on the typical specifications for these markets (Table 1). For example, Middle Eastern and North African (MENA) markets prefer a lower moisture content, often less than 14%, and overseas buyers often use Chopin Alveograph test results.

UK Flour Millers represents the UK milling industry, which uses approximately 4 million tonnes of homegrown wheat in an average year. Flour-based products are a cornerstone of the nation's diet and demand for flour is stable. Given the consistency of demand, it is no surprise that the UK milling industry is committed to continuous investment, with two new inland mills opening in the past two years, offering farmers greater choice of destination for milling wheat.

The preference of local millers should always be a significant factor affecting choice of milling variety. Growing for a specific market should be at the forefront of a farmer's mind if incomes are to be maximised from milling wheat. The UK Flour Millers website features a tool that helps identify local mills and provides relevant contact details. This can be accessed at [ukflourmillers.org/millmap](http://ukflourmillers.org/millmap)

## Potential new Group 1 winter bread-making wheat

UK bread-making wheats comprise the majority of millers' requirements and the Group 1 and 2 varieties on the RL continue to meet milling quality requirements as well as the agronomic needs of growers. SY Cheer, a potential new Group 1 winter wheat variety, has shown very promising quality in trials so far, as well as an excellent agronomic performance. Millers will confirm the rating in March 2024, subject to commercial scale assessments. This will potentially be the first new Group 1 variety since KWS Zyatt joined the RL in 2017.

## A strong market for milling wheat

Despite our stable demand for 4 million tonnes of homegrown milling wheat, the popularity of Group 1 varieties, on which the majority of our flour depends, has been in decline. Pressures around nitrogen fertiliser may have contributed to this, despite AHDB economic analysis suggesting that growers who have previously had success in achieving milling specification should continue to invest in the additional nitrogen fertiliser needed.

## Soft varieties

There is a range of Group 3 wheats with excellent yield and agronomic characteristics on the RL. Demand for these varieties remains strong as their unique protein quality is needed to produce a range of flour types and products, for which domestic and export demand continues to expand.

Group 4 soft wheats may also have a specific use in some flours and these varieties can find a milling home. However, not all mills will be interested in them, so it is important to speak to your buyers and understand what local markets are looking for.

## Ergot control

Ergot continues to be a problematic disease for arable farms across the country. Strict ergot limits affecting flour sold in Northern Ireland and EU member states have led to many mills reducing their tolerances for ergot at intake. It is crucial that farmers view this as a food safety issue and address the disease on-farm by applying the available management strategies. Cleaning ergot sclerotia out of grain and knowing the specifications of your mill markets are key steps to avoiding costly rejections.

## Our views on individual varieties

Milling industry views on different varieties can be found in the latest UK Flour Millers Wheat Guide. A digital copy can be downloaded, or a free physical copy requested at [ukflourmillers.org/wheat](http://ukflourmillers.org/wheat)

## A strong market for UK milling wheat

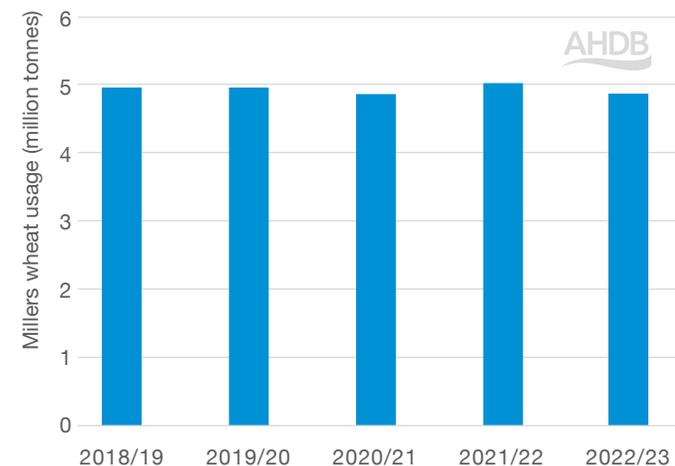


Figure 7. Milling industry wheat usage

Source: UK milling wheat usage survey

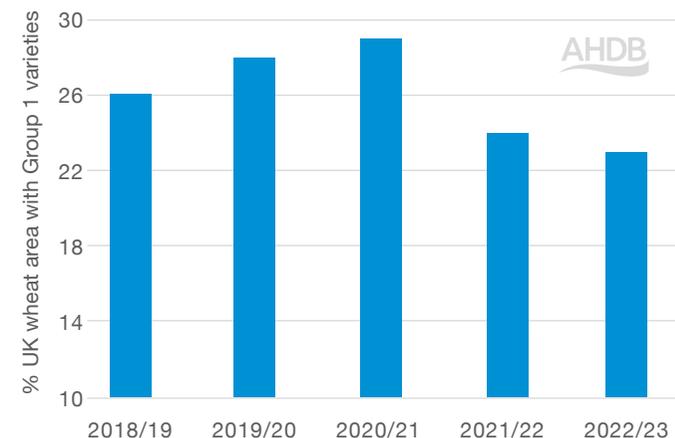


Figure 8. UKFM Group 1 wheat area

Source: AHDB variety survey

# Winter wheat 2024/25

## UKFM Group 1, 2 and 3



	KWS Zyatt	SY Cheer	Skyfall	Crusoe	RGT Illustrious	KWS Extase	KWS Ultimatum	KWS Palladium	Mayflower	Bamford	RGT Wilkinson	KWS Brium	RGT Rashid	Almata	LG Illuminate	LG Astronomer	Average LSD (5%)
End-use group	UKFM Group 1					UKFM Group 2				UKFM Group 3							
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	E	N	UK	UK	
Variety status		<b>NEW</b>	<b>C</b>			<b>C</b>				<b>NEW</b>		*		<b>NEW</b>	*		
<b>Fungicide-treated grain yield (% treated control)</b>																	
United Kingdom (11.0 t/ha)	99	97	96	95	95	101	101	100	97	106	100	100	99	99	98	98	2.3
East region (10.9 t/ha)	98	97	96	95	95	101	101	99	97	105	101	100	100	98	98	98	2.7
West region (11.2 t/ha)	99	98	96	96	96	102	101	101	97	107	99	99	98	99	99	98	3.0
North region (11.3 t/ha)	97	[98]	95	94	94	99	101	99	96	[105]	99	100	98	[102]	100	97	3.4
<b>Untreated grain yield (% treated control)</b>																	
United Kingdom (11.0 t/ha)	71	84	66	75	82	93	90	90	91	92	83	80	78	87	83	85	4.8
<b>Disease resistance</b>																	
Mildew (1–9)	7	[8]	6	7	6	7	7	8	7	[6]	7	7	3	[6]	5	4	1.5
Yellow rust (1–9)	3	7	3	8	7	7	9	9	9	7	7	9	8	8	7	8	0.6
Yellow rust (young plant)	s	-	s	s	s	s	r	r	r	-	s	s	r	-	r	r	
Brown rust (1–9)	7	6	9	3	5	6	6	5	6	6	5	5	5	6	6	7	0.6
Septoria tritici (1–9)	6.3	6.0	5.8	6.3	5.9	7.4	6.5	7.3	8.9	6.7	5.5	5.7	6.1	6.0	5.6	5.9	0.7
Eyespot (1–9)	6@	4	6@	5	6@	4	6	6	5@	6@	6@	5	5	4	5	5	1.5
Fusarium ear blight (1–9)	6	[7]	7	7	6	6	6	6	6	[5]	6	6	7	[6]	6	6	0.4
Orange wheat blossom midge	-	-	R	-	-	-	-	-	-	-	-	-	R	R	R	R	
<b>Agronomic features</b>																	
Resistance to lodging without PGR (1–9)	8	8	8	7	8	7	6	8	6	7	8	8	8	6	7	7	1.4
Resistance to lodging with PGR (1–9)	8	7	7	8	9	8	7	8	7	7	8	7	8	7	7	9	1.0
Lodging without PGR (%)	1	1	1	2	1	3	6	2	6	3	1	2	2	6	3	2	
Lodging with PGR (%)	1	3	3	2	0	2	4	2	4	4	1	4	2	3	3	0	
Straw length without PGR (cm)	86	91	87	84	91	92	87	85	90	90	84	93	87	86	85	90	1.5
Straw length with PGR (cm)	76	82	78	77	81	86	77	78	83	83	78	85	80	79	77	80	1.4
Ripening (days +/- Skyfall)	0	+1	0	+1	+1	-1	+1	-1	0	+1	+2	+2	+3	+1	+1	+2	0.7
Resistance to sprouting (1–9)	6	-	5	6	6	6	[6]	[6]	[6]	-	[5]	[6]	[6]	-	[6]	[7]	1.1

**Main market options (The specific attributes of varieties are different, so, whenever possible, varieties should not be mixed in store)**

UK bread-making	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y
UK distilling	-	-	-	-	-	-	-	-	-	[Y]						
 bread wheat for export	Y	-	-	Y	-	Y	[Y]	-	Y	-	-	-	-	-	-	-
 soft wheat for export	-	-	-	-	-	-	-	-	-	[Y]	[Y]	-	-	[Y]	Y	-

**Grain quality**

Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	
Protein content (%)	11.7	11.8	11.8	12.3	11.8	11.5	11.3	11.4	11.6	10.9	11.1	11.0	10.8	11.1	11.3	11.4	0.2
Protein content (%) – milling spec	12.5	13.0	12.9	13.2	12.5	12.3	12.2	12.2	12.5	11.6	12.1	11.8	12.0	12.2	12.4	12.5	0.5
Hagberg Falling Number	248	299	265	265	258	283	271	305	294	239	248	260	221	186	251	232	21.8
Specific weight (kg/hl)	78.3	79.5	79.1	78.3	78.0	79.1	79.6	77.6	79.1	78.5	75.4	78.0	77.1	77.6	77.0	78.1	0.6
Chopin Alveograph W	-	[275]	266	243	-	203	189	[186]	207	103	105	[78]	[76]	98	88	-	30.1
Chopin Alveograph P/L	-	[1.6]	1.0	0.6	-	0.7	0.7	[0.6]	0.8	0.5	0.4	[0.3]	[0.3]	0.3	0.3	-	0.3

**Annual treated yield (% control)**

2019 (11.6 t/ha)	96	-	95	97	94	100	-	100	98	-	-	99	99	-	100	99
2020 (10.4 t/ha)	97	-	95	94	96	99	[102]	[100]	[96]	-	[101]	[102]	[100]	-	100	98
2021 (11.1 t/ha)	99	97	97	95	93	101	100	98	95	104	98	98	98	100	97	97
2022 (11.7 t/ha)	100	98	96	94	96	102	101	100	97	106	101	100	98	99	98	97
2023 (10.9 t/ha)	99	96	98	96	96	101	101	100	97	106	99	99	99	99	97	97

**Rotational position**

First cereal (11.3 t/ha)	98	97	96	96	95	101	101	100	97	105	100	100	99	99	98	98	2.3
Second and more (10.2 t/ha)	98	95	97	94	93	101	101	99	98	106	100	100	99	98	98	97	3.4

**Sowing date (most trials were sown in October)**

Early sown (before 25 Sept) (11.4 t/ha)	[100]	[[97]]	96	[98]	[99]	101	[[103]]	[[99]]	101	[104]	[100]	100	[[98]]	[[100]]	101	99	4.3
Late sown (after 1 Nov) (9.5 t/ha)	97	[[100]]	97	94	93	101	[101]	98	94	[[105]]	[102]	101	103	[[96]]	97	97	4.6
Latest safe-sowing date	End Jan	[[End Jan]]	End Feb	End Jan	End Jan	End Jan	[End Jan]	End Jan	End Jan	[[End Jan]]	[End Jan]	End Feb	End Jan	[[End Jan]]	Mid Feb	End Jan	

**Soil type (about 50% of trials are on medium soils)**

Light soils (10.7 t/ha)	97	[96]	96	93	94	101	101	99	96	[105]	100	99	99	[102]	100	98	3.2
Heavy soils (11.4 t/ha)	99	97	96	96	96	101	101	99	97	106	100	99	99	98	98	98	3.2

**Breeder/UK contact**

Breeder	KWS	SCP	RAGT	Lim	R2n	Mom	KWS	KWS	ElsW	ElsW	R2n	KWS	RAGT	KWS	LimEur	LimEur
UK contact	KWS	Syn	RAGT	Lim	RAGT	KWS	KWS	KWS	Els	Els	RAGT	KWS	RAGT	Sen	Lim	Lim

**Status in RL system**

Year first listed	17	24	14	12	16	19	23	22	22	24	23	22	22	24	21	21
RL status	-	P1	-	-	-	-	P2	-	-	P1	P2	*	-	P1	*	-

**Varieties no longer listed:** Elation, Elicit, KWS Firefly, KWS Guium, KWS Jackal, KWS Siskin, LG Prince, Merit, RGT Saki and Theodore.

For this table, KWS Barrel was also a control variety but is no longer listed. SY Cheer is a provisional UKFM Group 1 variety. This rating will be confirmed in Spring 2024 once commercial assessments have been completed.

# Winter wheat 2024/25

## Soft Group 4 and Hard Group 4



	LG Redwaid	Blackstone	KWS Zealum	RGT Bairstow	LG Skyscraper	RGT Stokes	Swallow	LG Beowulf	Champion	SY Insignia	Oxford	KWS Dawsum	Gleam	Graham	KWS Cranium	LG Typhoon	RGT Wolverine	Costello	Average LSD (5%)	
End-use group	Soft Group 4							Hard Group 4												
Scope of recommendation	E&W	UK	N	UK	UK	N&W	N	UK	UK	UK	E&W	UK	UK	UK	UK	UK	Sp	UK		
Variety status		<b>NEW</b>			<b>C</b>		*	<b>NEW</b>					<b>C</b>							
<b>Fungicide-treated grain yield (% treated control)</b>																				
United Kingdom (11.0 t/ha)	106	103	102	102	102	101	96	106	106	104	104	103	103	102	102	100	99	98	2.3	
East region (10.9 t/ha)	105	103	103	102	103	100	96	106	106	104	104	103	103	101	102	100	99	99	2.7	
West region (11.2 t/ha)	107	101	102	103	101	103	96	106	106	105	104	104	103	104	100	100	100	98	3.0	
North region (11.3 t/ha)	104	[103]	102	102	101	103	100	[107]	103	105	101	105	103	102	102	101	99	99	3.4	
<b>Untreated grain yield (% treated control)</b>																				
United Kingdom (11.0 t/ha)	89	87	84	84	83	83	76	91	90	79	88	91	80	89	79	89	72	83	4.8	
<b>Disease resistance</b>																				
Mildew (1–9)	5	[7]	7	6	7	6	6	[6]	7	7	5	8	6	6	5	7	6	8	1.5	
Yellow rust (1–9)	7	9	9	8	7	7	7	9	8	4	8	9	5	7	9	9	4	9	0.6	
Yellow rust (young plant)	s	-	r	r	s	r	r	-	r	s	r	r	s	s	r	r	s	r		
Brown rust (1–9)	7	6	5	6	5	5	5	5	5	6	6	7	6	5	4	6	7	5	0.6	
Septoria tritici (1–9)	6.5	6.2	6.1	5.9	4.9	6.0	5.1	6.7	7.9	6.4	6.6	6.3	5.7	6.6	5.8	7.2	6.0	5.8	0.7	
Eyespot (1–9)	4	5	5	4	5	4	4	6	4	5	5	5	5	4	5	5	6	5	1.5	
Fusarium ear blight (1–9)	6	[8]	7	6	6	6	6	[6]	6	7	6	7	6	6	7	6	6	7	0.4	
Orange wheat blossom midge	R	R	R	R	R	-	R	R	R	R	R	-	R	-	R	R	-	-		
<b>Agronomic features</b>																				
Resistance to lodging without PGR (1–9)	5	8	6	6	6	5	8	8	6	6	7	7	7	7	8	7	7	7	1.4	
Resistance to lodging with PGR (1–9)	5	7	7	6	6	7	9	8	6	7	7	7	7	8	8	7	7	8	1.0	
Lodging without PGR (%)	22	2	6	10	8	12	1	1	6	7	3	3	3	3	2	3	3	2		
Lodging with PGR (%)	25	3	3	7	10	6	0	2	7	4	3	3	4	2	2	3	3	2		
Straw length without PGR (cm)	95	92	90	92	93	92	80	90	89	95	86	85	89	91	90	88	88	85	1.5	
Straw length with PGR (cm)	88	85	82	82	84	81	74	81	82	84	79	77	78	81	81	79	79	76	1.4	
Ripening (days +/- Skyfall)	+2	+2	+2	+2	0	+3	+1	+2	0	+1	+2	+1	0	-1	+3	+2	+2	+2	0.7	
Resistance to sprouting (1–9)	[6]	-	[6]	[6]	6	[6]	[5]	-	[6]	5	[6]	[6]	6	6	[6]	[5]	[6]	6	1.1	

**Main market options (The specific attributes of varieties are different, so, whenever possible, varieties should not be mixed in store)**

UK bread-making	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK distilling	[Y]	[Y]	[Y]	Y	[Y]	Y	Y	-	-	-	-	-	-	-	-	-	-	-
 bread wheat for export	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
 soft wheat for export	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Grain quality**

Endosperm texture	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard										
Protein content (%)	10.7	10.9	10.7	10.8	11.0	10.9	10.9	11.1	11.0	10.5	11.2	10.8	10.9	11.0	10.9	10.8	10.7	11.4
Protein content (%) – milling spec	11.4	11.7	11.8	11.7	12.0	11.9	11.8	12.3	11.9	11.2	12.2	11.7	11.5	11.8	11.7	11.8	11.4	12.3
Hagberg Falling Number	147	299	202	224	204	240	255	253	235	261	202	299	215	271	286	164	271	321
Specific weight (kg/hl)	75.2	78.2	76.8	76.6	77.1	76.2	76.6	78.3	75.4	78.6	76.1	79.9	76.9	77.7	75.8	77.1	76.3	81.1
Chopin Alveograph W	-	124	[74]	[54]	-	[65]	-	-	-	-	-	-	-	-	-	-	-	-
Chopin Alveograph P/L	-	0.5	[0.3]	[0.3]	-	[0.3]	-	-	-	-	-	-	-	-	-	-	-	-

**Annual treated yield (% control)**

2019 (11.6 t/ha)	-	-	-	103	103	103	98	-	104	105	-	104	102	102	101	102	101	98
2020 (10.4 t/ha)	[105]	-	[103]	[103]	102	[101]	101	-	[105]	103	[104]	[105]	103	102	103	[101]	101	99
2021 (11.1 t/ha)	106	102	101	101	101	102	97	107	105	105	102	103	104	103	99	100	95	99
2022 (11.7 t/ha)	106	103	102	102	102	101	98	105	105	105	102	103	103	103	102	99	101	98
2023 (10.9 t/ha)	105	102	102	102	100	101	94	106	106	106	105	104	104	102	102	101	100	98

**Rotational position**

First cereal (11.3 t/ha)	106	103	102	102	102	101	97	106	105	104	104	104	103	102	101	100	100	99
Second and more (10.2 t/ha)	106	102	104	103	103	101	98	106	107	105	104	104	102	101	102	102	98	97

**Sowing date (most trials were sown in October)**

Early sown (before 25 Sept) (11.4 t/ha)	[104]	[103]	105	101	102	101	99	[105]	107	[107]	104	106	103	101	[101]	103	100	99
Late sown (after 1 Nov) (9.5 t/ha)	[104]	[[105]]	[[104]]	104	102	99	97	[[108]]	106	102	[105]	103	102	99	104	100	99	100
Latest safe-sowing date	[Mid Feb]	[[Mid Feb]]	[End Jan]	End Feb	End Jan	End Jan	End Feb	[[End Jan]]	Mid Feb	End Jan	[End Jan]	End Jan	Mid Feb	End Jan	Mid Feb	End Jan	End Jan	End Jan

**Soil type (about 50% of trials are on medium soils)**

Light soils (10.7 t/ha)	105	[102]	[101]	103	102	102	100	[105]	105	106	102	105	103	102	103	101	97	99
Heavy soils (11.4 t/ha)	105	102	103	103	102	101	96	106	106	104	105	103	103	102	101	100	100	98

**Breeder/UK contact**

Breeder	LimEur	ElsW	KWS	RAGT	LimEur	RAGT	BA	LimEur	DSV	SyP	DSV	KWS	SyP	SyP	KWS	LimEur	R2n	KWS
UK contact	Lim	Els	KWS	RAGT	Lim	RAGT	Sen	Lim	DSV	Syn	DSV	KWS	Syn	Syn	KWS	Lim	RAGT	Sen

**Status in RL system**

Year first listed	23	24	23	22	19	22	21	24	22	20	23	22	18	16	21	22	21	15
RL status	P2	P1	P2	-	-	-	*	P1	-	-	P2	-	-	-	-	-	-	-

**Varieties no longer listed:** Elation, Elicit, KWS Firefly, KWS Guium, KWS Jackal, KWS Siskin, LG Prince, Merit, RGT Saki and Theodore.

For this table, KWS Barrel was also a control variety but is no longer listed. RGT Wolverine has a specific recommendation for resistance to *Barley yellow dwarf virus* (BYDV). Resistance to BYDV has not been verified in RL tests.

# Spring wheat 2024



	KWS Harsum	KWS Ladum	Mulika	Nissaba	KWS Alicium	WPB Mylo	KWS Lightum	KWS Cochise	SEW19-3003SW <sup>1</sup>	KWS Fixum	WPB Escape	Average LSD (5%)
End-use group	UKFM Group 1				UKFM Group 2				Hard Group 4			
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	
Variety status			C			NEW		C	NEW		*	
<b>UK yield as % control (spring sowing)</b>												
Fungicide-treated (7.1 t/ha)	102	101	95	95	105	103	101	101	107	106	102	3.1
<b>Disease resistance</b>												
Mildew (1–9)	[7]	[7]	6	[5]	[8]	[8]	[8]	8	[8]	[8]	8	1.0
Yellow rust (1–9)	7	7	6	5	7	9	6	4	7	6	8	0.4
Brown rust (1–9)	5	6	8	9	6	8	6	8	7	7	5	0.9
Septoria tritici (1–9)	6	[6]	6	[6]	7	[7]	7	6	[6]	[6]	[6]	0.9
Orange wheat blossom midge	R	-	R	R	R	-	R	R	-	-	-	
<b>Agronomic features (spring sowing)</b>												
Lodging with PGR (%)	[2]	[1]	[4]	[2]	[3]	[1]	[0]	[2]	[19]	[0]	[1]	
Straw length without PGR (cm)	78	75	78	76	84	74	78	77	79	78	72	1.9
Ripening (days +/- Mulika)	+1	-1	0	+2	-1	+1	0	0	-1	+1	+1	1.2
<b>Grain quality (spring sowing)</b>												
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	
Protein content (%)	13.0	13.5	14.0	13.8	13.3	13.3	13.6	13.6	13.0	13.0	13.0	0.2
Hagberg Falling Number	329	333	332	310	342	297	325	259	330	237	270	18.9
Specific weight (kg/hl)	78.5	78.1	77.3	76.7	80.2	77.2	78.3	78.6	80.4	77.6	76.3	0.6
<b>Annual treated yield (% control, spring sowing)</b>												
2019 (7.0 t/ha)	-	103	93	92	-	-	-	105	-	108	104	4.1
2020 (6.4 t/ha)	[102]	[98]	[94]	[96]	[101]	-	[100]	[101]	-	[108]	[103]	4.1
2021 (7.6 t/ha)	105	103	96	96	106	104	106	100	105	106	[103]	4.4
2022 (7.3 t/ha)	99	101	98	92	105	101	100	98	109	105	101	4.1
2023 (7.1 t/ha)	[100]	[99]	[96]	[97]	[107]	[105]	[97]	[100]	[108]	[101]	[99]	6.2
<b>Breeder/UK contact</b>												
Breeder	KWS	KWS	BA	BA	KWSGmbH	WPB	KWS	KWS	SE	KWS	WPB	
UK contact	KWS	KWS	Sen	BA	KWS	LSPB	KWS	KWS	Cope	KWS	LSPB	
<b>Status in RL system</b>												
Year first listed	23	22	11	22	23	24	23	17	24	22	21	
RL status	P2	-	-	-	P2	P1	P2	-	P1	-	*	

**Varieties no longer listed:** Hexham, KWS Chillam, KWS Giraffe and KWS Talisker.

For this table, Hexham was also a control variety but is no longer listed. <sup>1</sup>SEW19-3003SW (proposed name 'Everlong') will be added to the GB and NI Variety Lists (VL) in Spring 2024, provided no representations are received.

# Candidate varieties – wheat trials harvest 2024

## Winter wheat



Previous/proposed name	Variety ID	UK contact
<b>Selected as potential bread-making varieties</b>		
DSV 321113	Diamond	3200 DSV UK Ltd
KWS Equipe	KM 21110	3215 KWS UK
KWS Beste	KW 2226-19	3220 KWS UK
KWS Arnie	KWS W441	3223 KWS UK
KWS Newbie	KWS W442	3224 KWS UK
KWS Vibe	KWS W443	3225 KWS UK
LGWU192	LG Shergar	3245 Limagrain UK
RGT Goldfinch	RW42109	3259 RAGT Seeds
<b>Selected as potential biscuit-making varieties</b>		
EW9120	Energy	3207 Elsoms Seeds Ltd
EW9350	Frenzy	3212 Elsoms Seeds Ltd
KWS Solitaire	KWS W440	3219 KWS UK
KWS Flute	KWS W447	3228 KWS UK
LGWU197	LG Henri	3250 Limagrain UK
<b>Selected as potential feed varieties</b>		
KWS W432	KWS Scope	3222 KWS UK
KWS Vicarage	KWS W436	3231 KWS UK
KWS Mongoose	KWS W450	3232 KWS UK
Riley	SEWC150	3235 Senova
SEWC151	Memphis	3236 Senova
SEWC153	Rufus	3238 Senova
LGWU194	LG Rebellion	3247 Limagrain UK
RW42193	RGT Hexton	3265 RAGT Seeds
SY Monza	SY120582	3271 Syngenta UK Ltd
Roma	SY121451	3274 Syngenta UK Ltd

Candidate varieties will be considered for the RL 2025/26.  
Varieties are ordered within a group by ascending variety ID.

## Spring wheat



Previous/proposed name	Variety ID	UK contact
<b>Selected as potential bread-making varieties</b>		
STRU102574k021511	STR Osprey	3280 Agrovista UK Ltd
WPB Lynx	WPB 15SW690-03	3289 KWS UK
KWS Bezique	KWS W451	3290 KWS UK
KWS Jordum	KW 362-2-17	3292 KWS UK
<b>Selected as potential feed varieties</b>		
WPB15SW672-10	-	3276 Limagrain UK
NOS 416008.15	-	3284 Elsoms Seeds Ltd

Candidate varieties will be considered for the RL 2025.  
Varieties are ordered within a group by ascending variety ID.

After a candidate variety has been added to the GB and NI Variety Lists (VL), the data is published online ([ahdb.org.uk/rl](http://ahdb.org.uk/rl)) and on the RL app ([ahdb.org.uk/rlapp](http://ahdb.org.uk/rlapp)).

# Barley, oats and other cereal crops overview

## Yield

### Fungicide-treated yields

Fungicide-treated yields are calculated from trials that receive the full fungicide programme. All trials receive PGRs, except for spring barley, where PGRs are only applied if there is a high lodging risk. Other inputs are applied according to best local practice.

### Fungicide-untreated yields

Fungicide-untreated yields are calculated from trials that do not receive fungicides. Winter barley and winter oats fungicide-untreated trials receive a standard PGR programme. Other inputs are applied according to best local practice.

### Regional yields

Regional yields are calculated for winter and spring barley. As these are based on fewer trials, they should be treated more cautiously.

Divisions between regions are not absolute and growers are advised to consider which region is most appropriate for their conditions (Figures 9 and 10).

As oats, triticale and rye have smaller growing areas, there are fewer RL trials, and results are presented for a single UK region (there are insufficient trials to calculate robust regional yields).

### Yield on different soil types (winter barley)

Trials are located on soil types that are representative of the region. Soils in RL trials are classified using the system in RB209 ([ahdb.org.uk/rb209](http://ahdb.org.uk/rb209)), with about half of the trials located on medium textured soils.

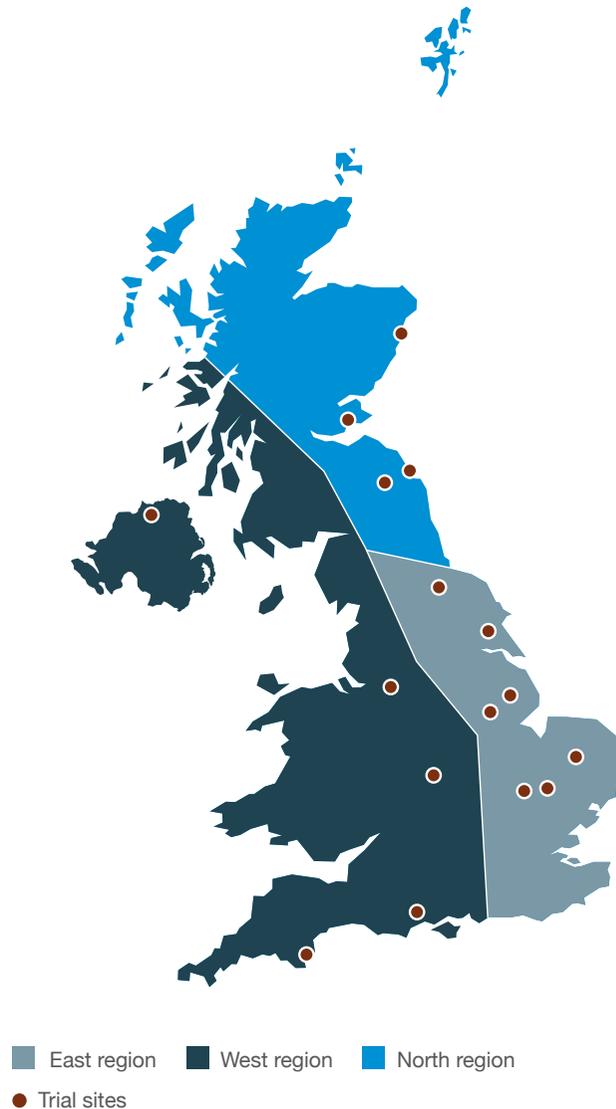


Figure 9. Winter barley regions used for calculation of regional yields and location of harvest 2023 RL winter barley fungicide-treated yield trials



Figure 10. Spring barley regions used for calculation of regional yields and location of harvest 2023 RL spring barley fungicide-treated yield trials

### Oat candidates

Oat candidates are trialled for an additional (second) year of candidacy (to provide sufficient data) before being considered for inclusion on the lists.

### Breeder's claims

Some characteristics are presented as a 'breeder's claim'. Accepted claims are associated with clear genetic markers that allow breeders to verify if a variety has inherited the trait.

For barley, claims are:

- *Barley yellow dwarf virus* tolerance (BYDV)
- *Barley yellow mosaic virus* strain 1 (BaYMV1) and strain 2 (BaYMV2) resistance
- *Barley mild mosaic virus* resistance (BaMMV)
- *mlo* in spring barley (resistance to powdery mildew)

Such claims are not verified in RL tests. For more information, contact the relevant breeder or UK contact.

### Disease updates

The *mlo* resistance gene in spring barley confers almost complete resistance to barley powdery mildew. All spring barley varieties in RL 2024/25 carry this gene.

*Barley mild mosaic virus* (BaMMV) and *barley yellow mosaic virus* (BaYMV) are persistent soilborne diseases that affect winter barley:

[ahdb.org.uk/cereal-mosaic-viruses](https://ahdb.org.uk/cereal-mosaic-viruses)

Resistant varieties and limiting spread, through reduced cultivation and good machinery hygiene, can help manage these diseases. However, there are resistance-breaking strains, often in areas with a high proportion of winter barley in the rotation.

Before RL 2024/25, only varietal resistance to BaYMV strain 1 was reported. RL 2024/25 also includes information on BaYMV strain 2 (see page 26). All winter barley varieties in RL 2024/25 are believed to be resistant to BaYMV strain 1 and BaMMV.



# Harvest results

RL data from our plot combines to your inbox.

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For technical commentary on each recommended and described variety, visit [ahdb.org.uk/rl](https://ahdb.org.uk/rl)

## Quality testing

### Specific weight

Specific weight is the weight of grain (corrected for variation in moisture content) when packed into a standard container. It is expressed in kilograms per hectolitre (100 litres) and is an important indicator of the physical quality of barley.

### Screenings

Screenings are undersized/broken grains and crop debris that pass through sieves (see tables for specified sizes). For oats, the smaller sieve size (1.8 mm) is used to screen huskless (naked) oat varieties. Genetic and environmental factors affect screening percentages.

## Oat quality

### Kernel content

Kernel content is the proportion of harvested oats made up of dehulled oats (kernels). High kernel content, high specific weight and low per cent screenings are preferred for milling.

### Hullability

Hullability is not reported as various dehulling methods are used by mills (there is no industry standard test).

## Barley quality

The tables feature several characteristics that are tested within the Malting Barley Committee (MBC) process.

### Nitrogen content

Grain nitrogen content (determined by the Dumas method) is an indirect measurement of protein content. The required levels of grain nitrogen vary between malt distilling, brewing and grain distilling.

### Hot water extract

This measures the amount of material extracted from the malt which contributes to fermentation. Maltsters and brewers look for high values ( $\geq 315$  l deg/kg).

### Predicted spirit yield

This measures the predicted amount of alcohol produced per tonne of malt in a malt whisky distillery. Maltsters and distillers look for high values ( $>415$  laa/tonne).

## MBC updates

MAGB and AHDB facilitate quality testing of winter and spring barley varieties to assess their suitability for brewing and distilling.

Results from commercial labs (over multiple years) help create the MBC approved lists.

The MBC meets twice a year to make decisions on the approval status of varieties.

Decisions in May can affect the approval status of RL varieties. The MBC publishes changes on the MAGB website. Online RL tables and RL app are updated at this time.

## MBC special use category

The special use category represents varieties that are unlikely to command a large market share but are of importance to certain sectors and uses within the malting, brewing and distilling supply chain. For example, grain distilling has now been designated by the MBC as a special use category.

The MBC special use varieties may be included as a described variety type in the RL. Fairing is now a described spring barley variety. Prior to this change, it had a specific recommendation for grain distilling.

# Variety selection tool

## A different perspective on the RL

### Identify the most promising varieties for your unique situation.



## Available for:

- Winter wheat
- Spring barley
- Spring oats
- Winter oats
- Winter barley
- Winter oilseed rape

For more information, visit: [ahdb.org.uk/vst](https://ahdb.org.uk/vst)

The Malting Barley Committee (MBC), which is administered by the Maltsters' Association of Great Britain (MAGB), tests and approves barley varieties for brewing, malting and distilling.

There is a considerable UK market for approved varieties, with approximately 1.9 million tonnes of UK malting barley purchased each year.

The local market varies considerably across the UK and should guide variety choice and crop management, particularly the management of nitrogen.

The testing of varieties for suitability in different end markets takes several years and varieties are added to the RL while still undergoing MBC testing.

The MBC has revised the Approved List categories to include a 'Special use' category. This currently includes the spring malting barley Fairing for grain distilling use but will be expanded as varieties with unique traits are selected through the MBC evaluation process.

## MBC Approved List – harvest 2024

Approved status	Winter barley brewing use	Spring barley brewing use	Spring barley malt distilling use	Special use
Full approval	Craft Electrum	Laureate RGT Planet LG Diablo Skyway	Laureate KWS Sassy LG Diablo Firefoxx	Fairing – grain distilling
Provisional approval	Buccaneer	SY Signet SY Tennyson	Diviner SY Tennyson	

The special use category represents varieties that are unlikely to command a large market share but are of importance to certain sectors and uses within the malting, brewing and distilling supply chain.

Farmers should speak to merchants before committing to varieties that are still under test to ensure an end market is available.

The MAGB website ([ukmalt.com/home](http://ukmalt.com/home)) offers further information on the market for malting barley. It also includes an up-to-date list of MBC approved varieties and information on growing malting barley, as well as the current Maltsters wish list.

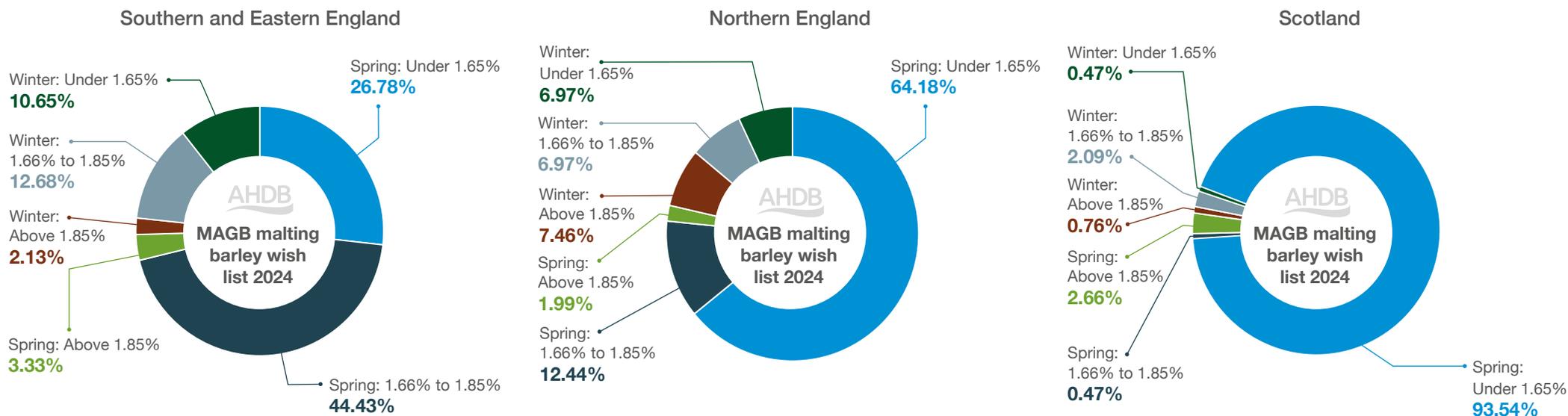


Figure 11. The chart above shows MAGB members' wish list for grain nitrogen levels in 2024 barley crop purchases from England and Scotland

Source: MAGB

# Winter barley 2024/25



	Buccaneer	Electrum	Craft	LG Caravelle	LG Capitol	Lightning	Bolivia	KWS Tardis	Bolton	Bordeaux	LG Mountain	LG Dazzle	KWS Orwell	Valerie	SY Thunderbolt#	SY Kingsbarn#	SY Kingston#	SY Canyon#	Belfry#	SY Nephin#	Bazooka#	SY Buzzard#	KWS Feeris	Average LSD (5%)
End-use group	Two-row malting			Two-row feed										Six-row feed										
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	Sp	Sp	
Variety status		<b>C</b>	<b>C</b>		<b>NEW</b>			<b>C</b>		*					*	<b>C</b>						<b>NEW</b>	<b>C</b>	
<b>Fungicide-treated grain yield (% treated control)</b>																								
United Kingdom (9.8 t/ha)	99	96	93	106	106	103	103	103	103	102	101	101	100	99	107	107	107	106	105	104	104	103	102	2.5
East region (9.5 t/ha)	100	96	93	107	107	104	104	104	105	104	102	103	99	99	106	106	106	105	105	105	104	104	102	3.2
West region (9.7 t/ha)	98	96	93	105	[103]	102	102	101	101	100	102	99	100	97	108	107	108	106	104	102	104	[101]	102	4.1
North region (10.5 t/ha)	100	96	93	104	[105]	103	103	103	101	102	101	101	99	100	107	107	106	106	105	105	106	[102]	100	3.5
<b>Untreated grain yield (% treated control)</b>																								
United Kingdom (9.8 t/ha)	87	80	80	90	89	90	88	85	86	82	84	88	83	74	88	83	87	91	87	92	83	82	84	4.3
<b>Disease resistance</b>																								
Mildew (1–9)	6	6	6	7	6	6	8	5	6	6	6	5	3	7	7	7	7	6	6	5	6	5	1.3	
Brown rust (1–9)	8	7	7	7	7	8	8	6	7	6	7	8	7	4	6	5	6	6	6	7	5	6	6	0.7
Rhynchosporium (1–9)	7	5	6	6	6	6	6	6	5	4	5	7	6	6	7	7	7	6	7	7	7	6	6	1.1
Net blotch (1–9)	6	5	5	6	5	6	6	6	5	5	4	5	5	5	6	5	6	6	5	6	5	7	6	0.8
BaYMV1 & BaMMV	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
BaYMV2	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	
<b>Agronomic features</b>																								
Resistance to lodging without PGR (1–9)	[7]	7	8	[8]	[7]	6	[8]	8	8	8	7	7	8	8	5	6	6	6	7	[6]	6	[8]	8	1.4
Resistance to lodging with PGR (1–9)	7	7	8	7	7	6	8	8	8	8	7	7	8	8	6	7	5	6	8	7	6	7	7	1.1
Lodging without PGR (%)	[6]	4	2	[2]	[3]	15	[2]	1	1	1	5	4	2	2	25	15	18	13	5	[10]	11	[1]	2	
Lodging with PGR (%)	3	3	1	2	2	5	1	0	1	1	3	3	1	1	8	4	11	6	1	3	5	2	3	
Straw length without PGR (cm)	100	102	99	93	[94]	95	93	97	95	95	94	95	96	95	115	116	120	119	113	113	120	[115]	102	3.7
Straw length with PGR (cm)	91	92	91	86	85	89	90	86	84	85	85	86	87	87	107	106	109	109	104	104	111	107	97	2.3
Brackling (%)	4	9	10	8	11	13	15	6	8	9	27	7	8	8	18	16	19	11	11	23	14	10	12	
Ripening (days +/- KWS Orwell)	+1	-1	0	0	0	-1	0	0	0	0	-1	+1	0	-1	-1	0	-1	-1	0	0	0	-1	0	1.1

### Main market options

MBC malting approval for brewing use	P	F	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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### Grain quality

Specific weight (kg/hl)	69.6	69.7	69.9	71.4	69.9	68.8	69.9	70.1	69.3	70.5	70.7	68.9	68.9	70.6	70.2	70.2	70.1	71.1	68.8	70.7	69.9	69.0	69.2	0.8
Screenings (% through 2.25 mm)	2.2	2.4	2.3	1.7	1.9	1.9	1.3	1.7	1.6	1.3	1.9	2.0	1.7	0.8	2.0	1.5	2.7	1.9	2.7	3.5	2.6	3.2	1.4	0.7
Screenings (% through 2.5 mm)	6.4	6.8	6.8	4.5	5.2	5.4	3.3	5.2	4.8	3.7	5.7	5.9	5.4	2.1	7.2	5.5	9.0	6.2	9.3	12.2	8.3	13.1	5.6	1.8
Nitrogen content (%)	1.68	1.71	1.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.74	0.11

### Malting quality

Hot water extract (l deg/kg)	307.9	306.9	308.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295.9	2.2
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### Annual treated yield (% control)

2019 (10.4 t/ha)	-	96	93	-	-	103	-	103	102	103	102	101	99	-	107	106	105	105	104	-	104	-	102	
2020 (9.3 t/ha)	101	96	94	107	-	104	104	103	104	102	104	102	101	99	106	106	108	105	105	104	105	-	102	
2021 (9.8 t/ha)	98	96	94	104	105	102	101	103	101	100	98	100	99	98	107	106	105	106	103	105	105	103	102	
2022 (10.0 t/ha)	99	96	92	106	106	104	105	101	103	103	102	100	100	100	108	108	108	107	105	105	105	102	103	
2023 (10.1 t/ha)	98	97	92	104	105	104	102	103	101	102	101	101	99	100	107	109	107	106	106	104	105	102	100	

### Soil type (about 50% of trials are medium soils)

Light soils (9.7 t/ha)	98	96	94	103	[104]	103	104	102	103	102	102	102	99	100	106	107	106	107	104	105	106	[101]	101	4.3
Heavy soils (9.4 t/ha)	98	96	93	106	[109]	103	103	106	104	104	101	102	100	[100]	105	103	101	102	102	102	103	[100]	102	5.7

### Breeder/UK contact

Breeder	Sej	SyP	SyP	LimEur	Lim	Ack	NS	KWS	Ack	NS	LimEur	Lim	KWS	Bre	SyP	SCP	KWS						
UK contact	SU	Syn	Syn	Lim	Lim	ElsAck	Agr	KWS	ElsAck	Sen	Lim	Lim	KWS	Sen	Syn	KWS							

### Status in RL system

Year first listed	23	18	16	23	24	22	23	21	21	21	19	22	16	19	21	19	21	22	16	23	16	24	22
RL status	P2	-	-	P2	P1	-	P2	-	-	*	-	-	-	-	*	-	-	-	-	P2	-	P1	-

**Varieties no longer listed:** Belmont, California, Funky, KWS Cassia, KWS Hawking and Surge.  
 KWS Feeris and SY Buzzard have a specific recommendation for tolerance to *Barley yellow dwarf virus* (BYDV). Tolerance to BYDV has not been verified in RL tests.  
 Growers are strongly advised to check with their buyer before committing to a malting variety without full MBC approval.  
 All winter barley varieties in RL 2024/25 are believed to be resistant to *Barley yellow mosaic virus* strain 1 (BaYMV1) and *Barley mild mosaic virus* (BaMMV).

# Spring barley 2024

## MBC malting varieties



	Skyway	Firefoxx	Laureate	LG Diablo	RGT Planet	KWS Sassy	SY Signet	Diviner	SY Tennyson	Bounty <sup>1</sup>	NOS Gambit	Belter	NOS Munro	LG Aquarius	Olsen	Hurter	Fairing	CB Score	Average LSD (5%)	
End-use group	Approved						Provisional			Under test for malting						Feed	Described			
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK Gr.Dis	UK Null-Lox	
Variety status	C	C	C	C	C					NEW	NEW	NEW	NEW	NEW	NEW					
<b>Fungicide-treated grain yield (% treated control)</b>																				
United Kingdom (7.8 t/ha)	102	101	101	99	97	95	102	102	102	105	103	103	103	103	102	104	91	98	2.3	
East region (7.9 t/ha)	103	101	101	99	97	93	103	101	102	107	104	104	102	105	103	104	90	98	3.1	
West region (7.4 t/ha)	103	102	102	98	96	96	100	101	101	[105]	[105]	[103]	[103]	[102]	[101]	104	93	98	3.6	
North region (8.2 t/ha)	101	102	100	100	97	96	103	103	102	105	101	103	103	101	102	104	90	99	2.7	
<b>Untreated grain yield (% treated control)</b>																				
United Kingdom (7.8 t/ha)	91	90	92	88	87	86	91	90	88	91	94	94	92	91	92	91	82	90	3.0	
<b>Disease resistance</b>																				
Mildew (1–9)	8	8	9	8	8	8	[8]	[9]	[8]	8	8	8	8	8	8	[8]	7	9	0.8	
Brown rust (1–9)	4	4	5	5	4	5	5	5	4	4	5	5	5	4	4	5	5	5	1.1	
Rhynchosporium (1–9)	7	6	7	6	6	6	5	4	5	[7]	[6]	[6]	[5]	[5]	[6]	6	9	7	1.5	
<b>Agronomic features</b>																				
Resistance to lodging without PGR (1–9)	7	7	6	7	7	6	[7]	[7]	[7]	[8]	[8]	[7]	[7]	[8]	[8]	[9]	8	7	1.1	
Straw length without PGR (cm)	77	72	72	73	75	80	73	68	72	71	70	70	73	72	72	68	72	72	1.8	
Ripening (days +/- RGT Planet)	0	0	+1	+3	0	+1	+2	+1	+2	+2	+1	+2	+2	+1	+2	+1	-2	+1	0.9	
Resistance to brackling (1–9)	8	8	8	8	8	6	8	8	7	8	9	9	8	8	8	9	8	8	0.7	
<b>Main market options</b>																				
MBC malting approval for brewing use	F	-	F	F	F	Nt	P	Nt	P	T	T	T	-	T	T	-	-	-		
MBC malting approval for malt distilling use	-	F	F	F	Nt	F	-	P	P	-	-	T	T	-	T	-	-	-		
<b>Grain quality</b>																				
Specific weight (kg/hl)	69.3	67.0	67.2	67.7	68.7	68.9	67.2	67.5	66.5	65.7	67.5	67.7	65.7	68.4	66.8	66.2	68.8	67.6	0.6	
Screenings (% through 2.25 mm)	0.9	1.4	1.3	1.4	1.2	1.0	1.5	1.7	1.4	1.4	0.9	1.0	2.1	1.2	1.6	1.5	1.0	1.4	0.3	
Screenings (% through 2.5 mm)	2.3	3.6	3.2	3.5	3.3	2.4	3.5	4.5	3.2	4.3	2.0	2.5	6.5	3.6	4.2	4.3	2.7	3.6	1.0	
Nitrogen content (%)	1.52	1.49	1.49	1.50	1.52	-	1.46	1.48	1.44	1.48	1.50	1.53	1.46	1.47	1.47	[1.48]	-	[1.52]	0.05	

<b>Malting quality</b>																			
Hot water extract (l deg/kg)	313.3	313.3	313.4	313.4	312.7	-	314.2	314.1	315.5	313.8	313.7	313.5	312.7	313.9	315.2	311.6	-	311.2	2.1
Predicted spirit yield (laa/t)	-	433.4	433.5	435.0	[434.0]	-	[431.5]	435.8	436.8	434.9	-	436.0	435.6	436.7	435.3	[431.5]	-	-	5.7
<b>Annual treated yield (% control)</b>																			
2019 (8.0 t/ha)	103	101	100	99	98	95	-	-	-	-	-	-	-	-	-	-	91	98	
2020 (7.7 t/ha)	103	100	100	100	97	95	102	102	103	-	-	-	-	-	-	104	90	98	
2021 (8.0 t/ha)	101	103	101	99	95	94	103	102	103	106	103	103	103	102	102	105	91	99	
2022 (7.9 t/ha)	102	101	101	99	97	96	102	102	102	106	104	103	103	104	103	104	92	99	
2023 (7.5 t/ha)	102	102	102	99	96	94	103	101	99	104	104	103	102	102	102	103	90	97	
<b>Breeder/UK contact</b>																			
Breeder	NS	Ack	SyP	LimEur	RAGT	KWS	SyP	Sec	SyP	NS	NS	Sec	NS	Lim	Sej	Sec	SyP	Cal	
UK contact	Agr	ElsAck	Syn	Lim	RAGT	KWS	Syn	Agr	Syn	AgV	Sen	Agr	Sen	Lim	Lim	Agr	Syn	ADM	
<b>Status in RL system</b>																			
Year first listed	21	20	16	18	15	16	23	23	23	24	24	24	24	24	24	23	16	22	
RL status	-	-	-	-	-	-	P2	P2	P2	P1	P1	P1	P1	P1	P1	P2	-	-	

**Varieties no longer listed:** Cadiz, Florence, KWS Curtis, Malvern, Prospect and Sun King.

<sup>1</sup>Bounty has been added to the GB and NI Variety Lists (VL). Approval of the name 'Bounty' will be confirmed in January 2024, provided no representations are received.

**Null-Lox and grain-distilling (Gr.Dis) spring barley varieties are described. Data is provided for information only and does not constitute a recommendation.**

Null-Lox varieties lack a gene for lipogenase production.

Growers are strongly advised to check with their buyer before committing to a malting variety without full MBC approval.

Seed supplied for RL trials for SY Tennyson in 2023 was heavily infected with net blotch. This may have negatively impacted yields.

# Winter oats 2024/25



	RGT Southwark	Cromwell	Dalguise	Gerald	Mascani	Peloton	Fusion <sup>®</sup>	Grafton	Average LSD (5%)
Variety type	Husked varieties					Naked varieties			
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	
Variety status	<b>C</b>		<b>C</b>	*	<b>C</b>				
<b>UK yield (% treated control)</b>									
Fungicide-treated (9.1 t/ha)	105	103	101	95	95	77	73	72	3.0
Untreated (% of treated control, 9.1 t/ha)	94	89	83	82	83	71	59	62	4.8
<b>Disease resistance</b>									
Mildew (1–9)	4	3	4	4	6	8	4	4	1.4
Crown rust (1–9)	7	5	4	5	5	6	3	4	1.6
<b>Agronomic features</b>									
Resistance to lodging without PGR (1–9)	5	[9]	4	6	7	7	9	7	1.8
Straw length without PGR (cm)	133	106	131	125	125	125	86	128	4.7
Ripening (days +/- Mascani)	-1	0	-1	+1	0	+1	+2	-1	1.0
<b>Grain quality</b>									
Kernel content (%)	72.5	74.7	72.6	70.5	75.3	-	-	-	0.9
Specific weight (kg/hl)	54.0	55.1	54.5	52.8	52.9	60.7	60.1	62.1	1.1
Screenings (% through 2.0 mm)	5.5	4.8	3.3	4.3	2.0	-	-	-	1.0
Screenings (% through 1.8 mm)	-	-	-	-	-	15.9	24.6	9.3	2.6
<b>Annual treated yield (% control)</b>									
2019 (9.3 t/ha)	105	[109]	99	98	96	78	76	77	5.9
2020 (8.3 t/ha)	105	101	101	94	95	75	73	70	5.2
2021 (9.1 t/ha)	105	-	100	93	95	75	70	69	5.8
2022 (9.7 t/ha)	105	98	102	94	93	77	71	70	4.8
2023 (9.1 t/ha)	105	105	101	96	95	78	72	70	6.4
<b>Breeder/UK contact</b>									
Breeder	R2n	IBERS	Sen	IBERS	IBERS	IBERS	IBERS	IBERS	
UK contact	RAGT	Sen	Sen	Sen	Sen	Sen	Sen	Sen	
<b>Status in RL system</b>									
Year first listed	18	23	03	93	04	17	10	00	
RL status	-	P2	-	*	-	-	-	-	

# Spring oats 2024



	Merlin	Asterion	WPB Isabel	Canyon	Lion	Conway	RGT Vaughan	Described			Average LSD (5%)
	Husked							Naked			
Variety type	Husked							Naked			
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	
Variety status		<b>NEW</b>	<b>C</b>	<b>C</b>					<b>NEW</b>		
<b>UK yield (% treated control)</b>											
Fungicide-treated (7.3 t/ha)	103	102	101	101	97	97	96	74	73	70	3.9
Untreated (% of treated control, 7.3 t/ha)	99	97	88	97	82	89	93	62	68	64	4.8
<b>Disease resistance</b>											
Mildew (1–9)	8	8	5	8	3	6	8	3	6	5	1.0
Crown rust (1–9)	[4]	[6]	5	4	[6]	4	[4]	4	[5]	[5]	0.9
<b>Agronomic features</b>											
Resistance to lodging without PGR (1–9)	8	[7]	7	7	7	7	[7]	7	[6]	[7]	0.8
Straw length without PGR (cm)	106	[110]	111	111	105	103	108	105	[109]	99	2.6
Ripening (days +/- WPB Isabel)	-2	0	0	-2	-1	-1	-2	-1	-2	-1	1.1
<b>Grain quality</b>											
Kernel content (%)	71.7	73.2	73.3	71.6	75.1	71.7	73.0	-	-	-	1.2
Specific weight (kg/hl)	50.7	51.3	52.9	50.9	51.2	49.1	51.7	59.1	54.6	57.2	1.3
Screenings (% through 2.0 mm)	1.9	2.6	2.3	2.9	2.7	2.6	2.7	-	-	-	0.8
Screenings (% through 1.8 mm)	-	-	-	-	-	-	-	7.0	15.2	13.8	1.9
<b>Annual treated yield (% control)</b>											
2019 (7.3 t/ha)	[108]	-	[101]	[101]	[99]	[94]	[96]	[75]	-	[67]	8.4
2020 (6.2 t/ha)	[100]	[99]	[102]	[103]	[94]	[101]	[102]	[75]	[78]	[76]	8.1
2021 (7.8 t/ha)	[103]	[103]	[102]	[101]	[97]	[99]	[95]	[73]	[72]	[66]	4.4
2022 (7.9 t/ha)	[103]	[101]	[100]	[101]	[99]	[96]	[97]	[73]	[73]	[70]	4.7
2023 (7.4 t/ha)	[102]	[103]	[103]	[98]	[99]	[94]	[93]	[73]	[73]	[73]	7.0
<b>Breeder/UK contact</b>											
Breeder	Selg	Nord	Wier	Nord	Nord	IBERS	R2n	Selg	IBERS	IBERS	
UK contact	Cope	SU	KWS	SU	SU	Sen	RAGT	Cope	Sen	Sen	
<b>Status in RL system</b>											
Year first listed	22	24	20	11	22	14	23	18	24	22	
RL status	-	P1	-	-	-	-	P2	-	P1	-	

Varieties no longer listed: Aspen, Delfin and Kamil.

For this table, Aspen was also a control variety but is no longer listed.

Naked spring oat varieties are described. Data is provided for information only and does not constitute a recommendation.

# Winter triticale descriptive list 2024/25



	Lumaco	RGT Eleac	KWS Fido	Brehat	SU Askadus	Kasyno	Cyrkon	Average LSD (5%)
Variety status		<b>NEW</b>	<b>C</b>	<b>NEW</b>	<b>NEW</b>	<b>C</b>		
<b>Grain yield (as % treated control)</b>								
Fungicide-treated (10.7 t/ha)	104	101	101	100	100	99	95	7.6
Number of trials	12	8	16	8	8	16	16	
<b>Disease resistance</b>								
Yellow rust (1–9)	9	9	6	9	7	8	4	0.9
<b>Agronomic features</b>								
Lodging (%)	[6]	[1]	[0]	[20]	[0]	[2]	[0]	
Straw length (cm)	121	[114]	115	[122]	[108]	104	100	5.7
Ripening (days +/- KWS Fido)	-1	[0]	0	[+2]	[+1]	+2	0	2.3
<b>Grain quality</b>								
Specific weight (kg/hl)	73.4	69.6	73.8	70.5	73.5	71.9	71.7	1.3
Protein content (%)	10.8	10.5	10.4	10.7	10.9	10.9	10.8	0.4
<b>Breeder/UK contact</b>								
Breeder	Lant	R2n	Lant	Desp	Nord	Dank	Hod	
UK contact	Sen	RAGT	Sen	Sen	SU	Sen	Dalt	
<b>Status in DL system</b>								
Year first listed	23	24	14	24	24	18	16	
DL status	P2	P1	-	P1	P1	-	-	

Varieties no longer listed: Belcanto, SU Liborious, Temuco, Tender PZO and Tribeca.  
 The data in this table is provided for information only and does not constitute a recommendation.

# Winter rye descriptive list 2024/25



	KWS Igor	KWS Tayo	KWS Gilmor	Astranos	SU Baresi	KWS Inspirator	SU Perspectiv	SU Karlsson	KWS Serafino	SU Performer	SU Arvid	SU Bendix	Poseidon	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Variety status			<b>NEW</b>	<b>NEW</b>		<b>NEW</b>	<b>NEW</b>	<b>NEW</b>		<b>C</b>				
<b>Grain yield (as % treated control)</b>														
Fungicide-treated (10.2 t/ha)	104	104	104	104	103	103	102	102	100	100	100	97	95	5.3
Number of trials	14	19	8	8	19	8	8	8	19	19	19	18	18	
<b>Disease resistance</b>														
Brown rust (1–9)	3	7	[2]	[3]	4	[7]	[4]	[7]	7	4	5	5	3	3.0
<b>Agronomic features</b>														
Lodging (%)	[20]	[7]	[1]	[8]	[13]	[16]	[14]	[5]	[11]	[33]	[41]	[15]	[1]	
Straw length (cm)	129	131	[131]	[130]	131	[129]	[131]	[135]	132	132	137	134	132	6.6
Ripening (days +/- SU Performer)	0	+1	0	0	0	0	0	0	0	0	0	0	-1	1.6
<b>Grain quality</b>														
Protein content (%)	8.8	9.0	8.9	9.6	8.6	8.6	8.9	9.2	8.9	9.0	8.9	9.5	9.7	0.4
Hagberg Falling Number	236	248	251	181	222	265	234	230	256	218	183	194	165	26.1
Specific weight (kg/hl)	75.7	76.3	77.2	77.0	77.4	75.1	77.3	77.9	76.5	77.1	76.2	76.9	75.6	1.0
<b>Breeder/UK contact</b>														
Breeder	KWSGmbh	KWSGmbh	KWSGmbh	NS	Hybro	KWSGmbh	Hybro	Hybro	KWSGmbh	Hybro	Hybro	Hybro	NS	
UK contact	KWS	KWS	KWS	Sen	SU	KWS	SU	SU	KWS	SU	SU	SU	Dalt	
<b>Status in DL system</b>														
Year first listed	23	22	24	24	22	24	24	24	21	17	21	22	21	
DL status	P2	-	P1	P1	-	P1	P1	P1	-	-	-	-	-	

Varieties no longer listed: SU Elrond and SU Pluralis.

The data in this table is provided for information only and does not constitute a recommendation.

# Candidate varieties – barley trials harvest 2024

## Winter barley



Previous/proposed name	Variety ID	UK contact
<b>Selected as potential feed varieties</b>		
Integral	SC 104465 UH	3476 Agrii
NOS 917.034-53	Russo	3479 Agrii
Bastion	NOS 917.003-66	3481 Agrovista UK Ltd
AC 15/455/57	Sixy	3483 Elsoms Ackermann Barley
AC 17/089/50	Rosemary	3485 Elsoms Ackermann Barley
LG Carpenter	LGBU19-7269-D	3487 Limagrain UK
Br12938p2	Kitty	3494 Senova
NOS917.039-67	NOS Olena	3495 Senova
NOS917.049-59	Organa	3496 Senova
SU Arion	NORD 19042/16	3500 Saaten Union UK
SU Newmarket	NORD 18139/27	3502 Saaten Union UK
SY Quantock	SY221180	3505 Syngenta UK Ltd
SY Kestrel	SY221200	3507 Syngenta UK Ltd
STRG 283/18	Aretha	3510 Cope Seeds & Grain
KWS Valencis	KWS B154	3514 KWS UK
KWS Heraclis	KWS B157	3517 KWS UK
Inys	KW 21-1961	3521 KWS UK

Candidate varieties will be considered for the RL 2025/26. Varieties are ordered within a group by ascending variety ID.

## Spring barley



Previous/proposed name	Variety ID	UK contact
<b>Selected as potential malting varieties</b>		
Firecracker	SC21-G287-046	3529 Agrii
Thunder	SC21-G287-086	3530 Agrii
Ptarmigan	SC21-G3208-040	3531 Agrii
AC 18/778/31	-	3538 Elsoms Ackermann Barley
KWS 20/3443	KWS Enduris	3544 KWS UK
LGBU21-3131-A	LG Crossbow	3553 Limagrain UK
LGBU21-3154-A	LG Interceptor	3555 Limagrain UK
NOS116.025-03	NOS Tucana	3565 Senova
SJ204211	-	3567 Senova
SY Arrow	SY421164	3571 Syngenta UK Ltd
<b>Described candidate varieties</b>		
CB20-0937	Sailer	3524 ADM Agriculture Ltd

Candidate varieties will be considered for the RL 2025. Varieties are ordered within a group by ascending variety ID.

After a candidate variety has been added to the GB and NI Variety Lists (VL), the data is published online ([ahdb.org.uk/rl](http://ahdb.org.uk/rl)) and on the RL app ([ahdb.org.uk/rlapp](http://ahdb.org.uk/rlapp)).

# Candidate varieties – oat and other cereals trials harvest 2024

## Winter oats



Previous/proposed name	Variety ID	Candidate stage	UK contact
<b>Husked varieties</b>			
Valentine	AUW001	Year 4	Senova
KM SHPB84	KWS Pertinent	Year 3	KWS UK
RGT Dempsey	RV21004	Year 3	RAGT Seeds
AUW003	Rannoch	Year 3	Senova
<b>Naked varieties</b>			
AUW005	-	Year 3	Senova

Year 4 candidate varieties will be considered for the RL 2025/26.  
Year 3 candidate varieties will be considered for the RL 2026/27.

## Spring oats



Previous/proposed name	Variety ID	Candidate stage	UK contact
<b>Husked varieties</b>			
Caledon	NORD20/134	Year 4	Saaten Union UK
KM SPTB5	KWS Vibrant	Year 3	KWS UK
WPB 15W964-01	WPB Mimic	Year 3	KWS UK
NORD 20/322	-	Year 3	Saaten Union UK
NORD 21/230	-	Year 3	Saaten Union UK
AUSO06	Nova	Year 3	Senova

Year 4 candidate varieties will be considered for the RL 2025.  
Year 3 candidate varieties will be considered for the RL 2026.

Varieties are ordered within a group by ascending variety ID.  
For oats, varieties will be grown in RL trials for two years (Year 3 and Year 4) before being considered for recommendation.

## Other cereals



Previous/proposed name	Variety ID	UK contact
<b>Winter triticale</b>		
RT15108	-	127 RAGT Seeds
<b>Winter rye</b>		
KWS-H219	KWS Baridor	69 KWS UK
KWS-H221	KWS Curator	70 KWS UK
KWS-H223	KWS Emphor	71 KWS UK
HYH339	SU Thor	74 Saaten Union UK

Candidate varieties will be considered for the DL 2025/26.  
Varieties are ordered within a group by ascending variety ID.

After a candidate variety has been added to the GB and NI Variety Lists (VL), the data is published online ([ahdb.org.uk/rl](http://ahdb.org.uk/rl)) and on the RL app ([ahdb.org.uk/rlapp](http://ahdb.org.uk/rlapp)).

# Oilseeds overview

## Yields

For spring and winter oilseed rape, yields are presented as gross output rather than seed yield. Gross output is calculated from the seed yield, with an adjustment to take account of the oil content. For spring linseed, seed yield is reported with no adjustment for oil content.

### Fungicide-treated yield (winter oilseed rape)

Fungicide-treated gross output is calculated from trials that receive the full fungicide programme, including applications to control sclerotinia at flowering. Other inputs are applied according to best local practice.

### Fungicide-untreated yield

Fungicide-untreated gross output for winter oilseed rape is calculated from trials that do not receive fungicides in the autumn or spring to control phoma and light leaf spot. However, they do receive fungicides to control sclerotinia at flowering. As fungicide-untreated trials are not conducted as part of VL testing, data on fungicide-untreated yields is only available from the second year of RL listing.

Spring oilseed rape gross output and spring linseed seed yield are calculated from trials that do not receive fungicides.

### Treatment benefit (winter oilseed rape)

Because oilseed rape yields are inherently more variable than cereal yields, comparing fungicide-treated and fungicide-untreated yields from different sites is less reliable. Treatment benefit only uses data from trials where there is a fungicide-treated and fungicide-untreated trial on the same site. Data is presented as a percentage of the treated control varieties at these sites only.

### Regional yields

Winter oilseed rape varieties are presented on a single UK list. Regional recommendations are also maintained. Varieties that are suitable for both the East/West and North regions have a UK recommendation.

Regional gross output yields are calculated. However, regional yields are based on fewer trials and should be treated more cautiously.

Data for the region a variety is recommended for is indicated in bold in the tables.

For regions where the variety is not recommended, yield figures are provided for information only (indicated in italics).

An additional table showing all varieties recommended for a region, including those with UK recommendation, ranked by yield can be found at [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

When choosing a variety, consider those recommended for the UK and your region. Divisions between regions are not absolute and growers are advised to consider which region is most appropriate for their conditions (Figure 12).

As spring oilseed rape and spring linseed have smaller growing areas with fewer trials and results are presented for a single UK region (there are insufficient trials to calculate robust regional yields).

### Breeder's claims

Some characteristics are presented as a 'breeder's claim'. Accepted claims are associated with clear genetic markers that allow breeders to verify if a variety has inherited the trait.

For oilseed rape, claims are:

- *Turnip yellows virus* resistance (TuYV)
- Tolerance to specific imidazolinone herbicides (a Clearfield® variety)
- Clubroot resistance
- Pod shatter resistance

Such claims are not verified in RL tests. For information on these claims, contact the relevant breeder or UK contact.



■ East/West region ■ North region ● Trial sites

Figure 12. Winter oilseed rape regions used for calculation of regional yields and location of harvest 2023 RL winter oilseed rape fungicide-treated yield trials

### Clubroot resistance (oilseed rape)

The pathogen that causes clubroot in oilseed rape has several strains. The relative proportion of these strains varies from location to location. Clubroot-resistant varieties are believed to be resistant to common clubroot strains and are recommended for growing on infected land. Some strains of clubroot may overcome the resistance in these varieties. Growing clubroot-resistant varieties repeatedly will select for these strains, potentially making the resistance genes ineffective.

To reduce the risk of resistance breakdown, these varieties should be used in line with AHDB clubroot management guidelines: [ahdb.org.uk/clubroot](https://ahdb.org.uk/clubroot)

### Pod shatter resistance (winter oilseed rape)

Unlike other claims, pod shatter resistance can be bred into a variety through more than one genetic pathway. This means that resistance to pod shatter may vary between varieties. Although AHDB research has developed a quantitative test for pod shatter resistance, it was not suitable for trial material.

### Quality testing

#### Glucosinolate (oilseed rape)

Glucosinolate contents are taken from the VL trials data for winter and spring oilseed rape. The maximum permitted level is 18 µm/g.

#### ALA content (spring linseed)

The alpha-linolenic acid (ALA) content is reported for linseed. Premiums may be available for varieties with high ALA content.

For technical commentary on each recommended and described variety, visit [ahdb.org.uk/rl](https://ahdb.org.uk/rl)

### Agronomic traits not included in the RL

#### Vigour

Good autumn and spring vigour is valued by farmers. AHDB has conducted trials and worked with breeders to develop ways to measure it in oilseed rape.

Although statistically significant differences in vigour are recorded between varieties in individual trials, when trials are combined, differences are no longer significant. This is because varieties that have high levels of vigour in one trial can show low levels of vigour in another.

The reason for this variability is unclear. It may be due to temperature, soil moisture, soil nutrient content, day length or other environmental factors that outweigh genetic differences in vigour.

Until we understand more about these factors, it will not be possible to produce reliable information on varietal vigour.

### Cabbage stem flea beetle (CSFB) resistance

AHDB is working with researchers and breeders to establish if there are varietal differences in resistance or tolerance to CSFB and to identify the genetic basis for resistance.

The work includes investigating tolerance to feeding by larvae in the spring (over three years). Although this has detected significant differences in damage between varieties, this has not translated into significant yield differences.

AHDB CSFB research projects:

- Novel approaches to control cabbage stem flea beetle
- Genetic basis of winter oilseed rape resistance to the cabbage stem flea beetle
- Varietal resistance to feeding (herbivory) by the cabbage stem flea beetle in oilseed rape
- Reducing the impact of cabbage stem flea beetle on oilseed rape in the UK

To learn more about this research, search 'cabbage stem flea beetle' at [ahdb.org.uk/research](https://ahdb.org.uk/research)

### Disease updates

#### Verticillium stem stripe

Verticillium stem stripe of oilseed rape (previously known as verticillium wilt) was first confirmed in England in 2007. Since then, the disease has been reported widely, with the most severely affected crops tending to be in eastern England, though symptoms have been reported as far north as Yorkshire and west as Herefordshire.

The disease is sporadic, but yield losses as high as 34% have been recorded, with the greatest losses associated with canopy collapse and seed loss. Symptoms tend to be worse with high temperatures and drought stress in the run-up to harvest.

The disease is soilborne and persistent, so it can build up in the soil, when susceptible hosts are present. With no fungicide treatment available, the only effective control is lengthening rotations. However, after initially being identified in the UK, it became evident that there were differences in the susceptibility of varieties.

AHDB has funded nearly a decade of work to understand the disease better and develop trialling protocols to establish variety ratings for resistance to verticillium stem stripe.

The 2024/25 winter oilseed rape list includes information on verticillium resistance for the first time. However, verticillium resistance is defined in a different way to other diseases because there is currently insufficient differentiation between varieties to justify a 1–9 scale. Varieties have been given one of three rating categories: MR 'moderately resistant', S 'susceptible' or I 'intermediate'. Varieties in the S and MR categories are different from each other at a statistically significant level.

More information on the symptoms and management of verticillium, along with the data on which the ratings are based, can be found at [ahdb.org.uk/verticillium-stem-stripe](https://ahdb.org.uk/verticillium-stem-stripe)

#### Phoma stem canker

Using resistant varieties is an effective way of managing phoma stem canker risk. Phoma stem canker ratings for established varieties have reduced by around one rating point in RL 2024/25 compared with RL 2023/24. Though, due to rounding effects, some varieties have fallen two ratings points and some none.

This does not reflect a change in varietal susceptibility. The statistical method used to calculate the ratings had caused the ratings to drift upwards over recent years (since 2017). This has been corrected. A new method has been adopted to avoid this reoccurring.

Further information on the management of phoma, including the annual phoma leaf spot forecast, can be found at [ahdb.org.uk/phoma](https://ahdb.org.uk/phoma)

# Winter oilseed rape 2024/25

## Hybrid varieties



	LG Armada	LG Academic	LG Adeline	Turing	Dolphin	LG Auckland	Attica	Murray	Vegas	Ambassador	LG Wagner	Aurelia	LG Aviron	LG Adonis	PT303	Dart	Tennyson	Average LSD (5%)
	<b>Hybrid</b>																	
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Scope of recommendation	UK	UK	UK	UK	E/W	E/W	UK	E/W	UK	E/W	N	UK	UK	E/W	UK	E/W	E/W	
Variety status	<b>NEW</b>	<b>NEW</b>	<b>NEW</b>		<b>NEW</b>					<b>C</b>		<b>C</b>	*	*	*	*	*	
<b>Gross output, yield adjusted for oil content (% treated control)</b>																		
United Kingdom (5.1 t/ha)	107	106	106	106	105	105	105	105	104	104	103	103	102	101	101	99	96	4.2
East/West region (5.0 t/ha)	106	106	106	106	106	105	105	105	104	104	102	103	102	101	101	100	97	4.8
North region (6.0 t/ha)	107	107	108	105	[102]	103	104	102	102	101	108	102	103	100	100	92	93	4.7
<b>Seed yield (% treated control)</b>																		
United Kingdom (4.8 t/ha)	106	106	106	107	103	104	105	105	104	104	103	103	103	100	100	99	96	4.0
East/West region (4.7 t/ha)	106	106	106	107	103	105	105	106	104	104	102	103	103	100	100	100	97	4.5
North region (5.5 t/ha)	107	107	109	107	[100]	102	104	103	102	102	108	103	104	99	100	92	94	4.6
<b>Untreated yield (% untreated control) – UK</b>																		
Gross output (5.3 t/ha)	-	-	-	103	-	105	102	105	106	103	[106]	104	105	102	100	96	94	6.4
Seed yield (4.9 t/ha)	-	-	-	104	-	104	102	105	105	103	[106]	104	107	101	100	96	94	6.1
<b>Disease resistance</b>																		
Light leaf spot (1–9)	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	0.6
Stem canker (1–9)	6	6	6	4	7	5	5	8	9	6	5	5	6	6	6	5	7	1.0
Verticillium	-	-	-	I	[MR]	[I]	[S]	[MR]	[I]	S	[S]	[I]	[S]	[MR]	-	[I]	[MR]	
TuYV	R	R	R	-	R	R	R	-	-	R	R	R	R	R	R	R	R	
<b>Agronomic features</b>																		
Resistance to lodging (1–9)	[8.0]	[7.9]	[8.0]	[7.9]	[8.0]	[7.8]	[7.9]	[8.0]	[7.9]	[8.0]	[8.0]	[7.9]	[7.8]	[7.9]	[7.9]	[7.9]	[7.8]	0.1
Stem stiffness (1–9)	8	8	8	8	9	7	8	9	8	8	8	7	7	8	[8]	8	8	0.6
Shortness of stem (1–9)	5	5	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	0.3
Plant height (cm)	152	152	150	142	143	148	148	148	143	146	142	143	147	140	157	143	143	3.2
Earliness of flowering (1–9)	5	7	7	8	7	7	7	7	7	7	7	7	8	7	5	7	6	0.4
Earliness of maturity (1–9)	5	5	5	5	4	5	5	5	5	6	5	5	6	5	5	5	5	0.4
Pod shatter resistance	R	R	R	-	-	R	R	-	-	R	R	R	R	-	-	-	-	

**Seed quality (at 9% moisture)**

Oil content, fungicide-treated (%)	45.5	45.2	44.9	44.4	46.6	45.5	45.3	44.5	45.4	44.7	45.0	44.8	44.4	46.1	45.7	45.2	44.8	0.3
Glucosinolate (µmol/g)	12.6	14.1	14.7	10.4	13.0	12.2	12.0	11.1	11.0	10.9	11.7	10.2	11.2	9.7	8.0	10.0	11.1	

**Annual treated gross output, yield adjusted for oil content (% control) – UK**

2020 (5.6 t/ha)	-	-	-	105	-	103	106	102	102	103	106	103	104	100	101	97	96	
2021 (5.2 t/ha)	107	106	109	107	103	104	105	105	104	102	104	103	101	102	102	96	95	
2022 (5.8 t/ha)	107	107	106	106	104	104	104	103	103	102	105	102	103	101	100	97	95	
2023 (5.4 t/ha)	107	107	107	105	105	105	104	104	103	102	105	102	102	101	-	94	93	

**Treatment benefit at co-located sites (% treated control, 5.5 t/ha) – UK**

Treated gross output	-	-	-	105	-	106	103	100	102	102	[108]	103	104	100	99	95	95	5.9
Untreated gross output	-	-	-	99	-	101	98	100	102	99	[102]	100	101	98	96	92	90	6.2

**Breeder/UK contact**

Breeder	LimEur	LimEur	LimEur	NPZ	DSV	LimEur	LimEur	NPZ	NPZ	LimEur	LimEur	LimEur	LimEur	LimEur	PionOS	DSV	SyP	
UK contact	Lim	Lim	Lim	LSPB	DSV	Lim	Lim	LSPB	LSPB	Lim	Lim	Lim	Lim	Lim	Cor	DSV	Els	

**Status in RL system**

Year first listed	24	24	24	23	24	22	23	23	23	20	23	20	21	22	22	22	22	
RL status	P1	P1	P1	P2	P1	-	P2	P2	P2	-	P2	-	*	*	*	*	*	

**Varieties no longer listed:** Crossfit, DK Expectation, DK Imprint CL, Flemming, LG Antigua, PT279CL, Respect and V 316 OL.

For this table, DK Expansion was also a control variety but is no longer listed.

Yield figures for regions where the variety is not recommended are provided for information only and are indicated in italics.

# Winter oilseed rape 2024/25

## Conventional open-pollinated, herbicide tolerant, clubroot resistant and described varieties



	PI Pinnacle	Tom	Annika	Acacia	Aspire	Amarone	Matrix CL	Beatrix CL	Miraculix CL	LG Constructor CL	Crocodile	Crome	Resort	PX131	Average LSD (5%)
	Conventional open-pollinated						Herbicide tolerant				Clubroot resistant		Described		
Variety type	Conv	Conv	Conv	Conv	Conv	Conv	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Scope of recommendation	UK	UK	E/W	UK	N	N	UK Sp	N Sp	N Sp	UK Sp	E/W Sp	UK Sp	UK HEAR	UK SD	
Variety status	<b>NEW</b>				<b>C</b>				<b>NEW</b>	*					
<b>Gross output, yield adjusted for oil content (% treated control)</b>															
United Kingdom (5.1 t/ha)	102	102	99	98	96	95	96	96	95	92	98	96	88	88	4.2
East/West region (5.0 t/ha)	103	101	99	98	96	94	97	96	95	93	99	96	88	88	4.8
North region (6.0 t/ha)	101	102	98	99	98	100	94	92	96	89	95	96	87	92	4.7
<b>Seed yield (% treated control)</b>															
United Kingdom (4.8 t/ha)	104	101	99	98	96	96	96	94	94	93	99	95	88	87	4.0
East/West region (4.7 t/ha)	104	101	99	98	95	95	96	95	94	94	99	95	88	87	4.5
North region (5.5 t/ha)	102	102	98	99	98	100	94	92	96	90	96	95	86	91	4.6
<b>Untreated yield (% untreated control) – UK</b>															
Gross output (5.3 t/ha)	-	103	96	98	96	99	95	95	-	87	98	94	87	86	6.4
Seed yield (4.9 t/ha)	-	102	96	99	96	100	94	94	-	88	99	93	87	85	6.1
<b>Disease resistance</b>															
Light leaf spot (1–9)	7	7	7	6	7	7	6	5	5	5	6	6	5	6	0.6
Stem canker (1–9)	4	5	5	5	5	4	7	6	7	4	3	3	4	5	1.0
Verticillium	[1]	[1]	[MR]	[1]	[1]	[S]	[1]	1	[1]	[S]	[1]	[MR]	[1]	[MR]	
TuYV	-	-	R	-	R	R	R	R	R	R	-	-	-	-	
<b>Agronomic features</b>															
Resistance to lodging (1–9)	[8.0]	[7.9]	[8.0]	[8.0]	[7.9]	[8.0]	[7.7]	[7.9]	[7.9]	[7.9]	[7.9]	[7.9]	[8.0]	[8.0]	0.1
Stem stiffness (1–9)	9	9	9	8	8	8	7	8	8	8	[8]	8	8	8	0.6
Shortness of stem (1–9)	6	6	6	7	7	7	5	6	5	6	6	6	6	9	0.3
Plant height (cm)	148	140	142	138	134	136	151	145	151	142	141	139	143	110	3.2
Earliness of flowering (1–9)	5	7	6	6	7	7	6	7	7	6	6	7	7	6	0.4
Earliness of maturity (1–9)	5	5	4	5	5	5	6	5	6	6	6	5	5	5	0.4
Pod shatter resistance	-	-	-	-	-	-	R	R	R	R	-	-	-	R	

**Seed quality (at 9% moisture)**

Oil content, fungicide-treated (%)	44.4	45.2	44.9	44.9	45.2	44.7	45.6	45.8	45.6	44.1	44.8	45.8	45.5	46.0	0.3
Glucosinolate (µmol/g)	13.0	11.6	11.6	8.1	9.9	11.9	14.2	15.3	15.2	15.8	12.8	10.8	14.0	9.4	

**Annual treated gross output, yield adjusted for oil content (% control) – UK**

2020 (5.6 t/ha)	-	[102]	97	98	95	97	96	[94]	-	93	96	96	86	90
2021 (5.2 t/ha)	103	102	99	100	97	98	94	93	96	90	98	97	90	91
2022 (5.8 t/ha)	102	101	100	99	97	98	96	96	96	93	99	95	88	90
2023 (5.4 t/ha)	101	103	97	98	99	97	95	93	95	88	95	97	87	90

**Treatment benefit at co-located sites (% treated control, 5.5 t/ha) – UK**

Treated gross output	-	102	99	98	96	99	97	98	-	89	96	94	86	88	5.9
Untreated gross output	-	98	92	94	92	95	91	91	-	84	94	90	84	83	6.2

**Breeder/UK contact**

Breeder	Pick	CBI	LimEur	LimEur	LimEur	LimEur	DSV	DSV	DSV	LimEur	DSV	NPZ	Lemb	PionOS
UK contact	GSd	FrontAg	Lim	Lim	Lim	Lim	DSV	DSV	DSV	Lim	DSV	LSPB	LSPB	Cor

**Status in RL system**

Year first listed	24	23	22	20	19	22	22	23	24	22	20	19	20	20
RL status	P1	P2	-	-	-	-	-	P2	P1	*	-	-	-	-

**Varieties no longer listed:** Crossfit, DK Expectation, DK Imprint CL, Flemming, LG Antigua, PT279CL, Respect and V 316 OL.

For this table, DK Expansion was also a control variety but is no longer listed.

**High Erucic Acid (HEAR) and semi-dwarf (SD) varieties are described. Data is provided for information only and does not constitute a recommendation.**

Yield figures for regions where the variety is not recommended are provided for information only and are indicated in italics.

Herbicide-tolerant varieties have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety).

Clubroot-resistant varieties have a specific recommendation for growing on land infected with common strains of clubroot.

# Spring oilseed rape descriptive list 2024



	Lakritz	Performer	Lavina	Lumen	Builder	Fergus	Contra CL <sup>1</sup>	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Hybrid	
Variety status				<b>C</b>				
<b>Gross output, yield adjusted for oil content (% control)</b>								
UK without fungicide (3.2 t/ha)	[105]	[102]	[101]	[100]	[100]	[96]	[94]	7.3
Number of trials	7	7	7	7	7	7	7	
<b>Seed yield (% control)</b>								
UK without fungicide (3.0 t/ha)	[106]	[100]	[101]	[100]	[99]	[95]	[95]	6.9
<b>Agronomic features</b>								
Shortness of stem (1–9)	6	6	7	6	6	7	6	0.6
Earliness of flowering (1–9)	[7]	7	[7]	7	7	[7]	[7]	0.6
Earliness of maturity (1–9)	[5]	5	[6]	6	5	[5]	[5]	1.0
<b>Seed quality (at 9% moisture)</b>								
Oil content (%)	[43.7]	[45.4]	[44.4]	[44.3]	[45.0]	[45.1]	[43.5]	0.8
Glucosinolate content (µmol/g)	10.6	13.6	12.5	11.0	14.4	12.3	12.4	
<b>Annual gross output, yield adjusted for oil content (% control)</b>								
2019 (3.8 t/ha)	[[102]]	[[96]]	[[96]]	[[102]]	[[99]]	[[91]]	[[97]]	
2020 (3.0 t/ha)	[104]	[105]	[104]	[102]	[99]	[101]	[91]	14.8
2021 (2.3 t/ha)	[112]	[103]	[104]	[97]	[99]	[104]	[98]	12.7
2022 (4.7 t/ha)	[[101]]	[[102]]	[[101]]	[[98]]	[[102]]	[[88]]	[[90]]	
2023 (2.9 t/ha)	[[107]]	[[104]]	[[100]]	[[103]]	[[103]]	[[93]]	[[93]]	
<b>Breeder/UK contact</b>								
Breeder	NPZ	BASF	NPZ	NPZ	BASF	Lant	NPZ	
UK contact	DSV	BASF	DSV	DSV	BASF	Sen	DSV	
<b>Status in DL system</b>								
Year first listed	21	20	22	18	15	22	21	
DL status	-	-	-	-	-	-	-	

Varieties no longer listed: Caramino CL, Lagonda and Mental.

For this table, Lagonda was also a control variety but is no longer listed.

The data in this table is provided for information only and does not constitute a recommendation.

<sup>1</sup>Contra CL is a herbicide-tolerant variety. This variety has a tolerance to specific imidazolinone herbicides (a Clearfield® variety).

# Spring linseed descriptive list 2024



	Skylark	Juliet	Bingo	Bliss	Ineke	Octal	Buffalo	Bowler	Batsman	Daniel	Richess	Abacus	Gilbert	Aquarius	Olympe	Average LSD (5%)
Seed colour	B	B	B		B	B		B	B			B	Ye	B		
Variety status	NEW		C						C		NEW	C				
<b>Seed yield as % control</b>																
UK without fungicide (2.1 t/ha)	109	108	108	106	102	102	101	100	99	98	97	94	94	93	89	10.6
Number of trials	10	17	17	17	17	17	17	17	17	17	10	17	14	17	13	
<b>Agronomic features</b>																
Plant height (cm)	49	55	51	49	58	50	51	49	53	52	43	49	50	51	52	3.1
Earliness of flowering (1–9)	3	4	5	6	2	4	3	4	6	6	7	5	6	6	6	1.0
Earliness of maturity (1–9)	6	5	6	6	5	6	6	6	7	5	7	7	7	7	7	0.9
<b>Seed quality (at 9% moisture)</b>																
Oil content (%)	41.6	41.9	40.3	40.8	40.0	41.2	42.6	41.3	40.7	40.2	42.9	40.2	41.5	42.9	42.0	0.8
ALA content (%)	62.0	58.1	57.5	60.9	56.8	55.8	58.7	60.7	60.3	57.8	65.5	59.9	66.9	60.7	62.7	
<b>Annual seed yield (% control)</b>																
2019 (2.2 t/ha)	-	[103]	[105]	[113]	[108]	[107]	[106]	[107]	[103]	[93]	-	[92]	-	[93]	-	10.1
2020 (2.7 t/ha)	-	[118]	[105]	[106]	[109]	[98]	[108]	[106]	[101]	[93]	-	[95]	[97]	[98]	[100]	10.2
2021 (2.1 t/ha)	[106]	[95]	[109]	[102]	[92]	[102]	[97]	[95]	[93]	[98]	[94]	[98]	[92]	[93]	[96]	9.1
2022 (2.0 t/ha)	[109]	[110]	[112]	[103]	[103]	[101]	[92]	[90]	[98]	[105]	[90]	[90]	[96]	[83]	-	16.2
2023 (1.7 t/ha)	[109]	[114]	[110]	[105]	[97]	[103]	[99]	[101]	[97]	[105]	[99]	[94]	[86]	[93]	[98]	16.4
<b>Breeder/UK contact</b>																
Breeder	JTSD	GKI	Bilt	Bilt	JTSD	LaS	Bilt	Bilt	Bilt	Med	LS	JTSD	CDC	LimEur	TdL	
UK contact	UOM	Agr	Els	Els	Bost	Dalt	Els	Els	Els	Agr	PC	Sen	Rapp	Bost	Lim	
<b>Status in DL system</b>																
Year first listed	24	01	17	20	18	17	21	13	12	18	24	06	23	17	23	
DL status	P1	-	-	-	-	-	-	-	-	-	P1	-	P2	-	P2	

Varieties no longer listed: Lion and Sarah.

The data in this table is provided for information only and does not constitute a recommendation.

# Candidate varieties – winter oilseed rape trials harvest 2024



	Previous/proposed name	Variety ID	UK contact
<b>Hybrid varieties</b>			
H9181128	KWS Mikados	3436	KWS UK
MH 19HR241	-	3438	KWS UK
LE21/447	LG Adapt	3445	Limagrain UK
Tenzing	NPZ21291W11	3456	LS Plant Breeding
LE21/446	LG Avenger	3458	Limagrain UK
Maverick	RAP21292W11	3461	LS Plant Breeding
RAP21301W11	Churchill	3464	DSV UK Ltd
Cipressa	LSF21314W11	3466	LS Plant Breeding
Magelan	LE20/439	3469	Limagrain UK
LE21/456	-	3470	Limagrain UK
HRH1293	Shiraz	3479	RAGT Seeds
HRG956	Paparazzi	3481	RAGT Seeds
WRH 637	-	3487	DSV UK Ltd
<b>Conventional open-pollinated varieties</b>			
ELSEEVD165	-	3459	Elsoms Seeds Ltd
ELS1445-244	-	3465	Elsoms Seeds Ltd
ELSWRA1-49	-	3472	Elsoms Seeds Ltd
<b>Clubroot-resistant varieties</b>			
RAP602	Cromat	3449	LS Plant Breeding
Crusoe	NPZ21300W15	3468	LS Plant Breeding
RAP 637	-	3480	DSV UK Ltd

Candidate varieties will be considered for the RL 2025/26.  
Varieties are ordered within a group by ascending variety ID.



	Previous/proposed name	Variety ID	UK contact
<b>Described candidate varieties</b>			
NPZ21290W12	-	3462	LS Plant Breeding
Erwan	NPZ21288W12	3473	LS Plant Breeding

Candidate varieties will be considered for the DL 2025/26.  
Varieties are ordered within a group by ascending variety ID.

After a candidate variety has been added to the GB and NI Variety Lists (VL), the data is published online ([ahdb.org.uk/rl](https://ahdb.org.uk/rl)) and on the RL app ([ahdb.org.uk/rlapp](https://ahdb.org.uk/rlapp)).

# Candidate varieties – spring oilseeds trials harvest 2024



Previous/proposed name	Variety ID	UK contact
<b>Spring oilseed rape</b>		
DLE22833S21	-	3489 LS Plant Breeding

Candidate varieties will be considered for the DL 2025.  
Varieties are ordered within a group by ascending variety ID.



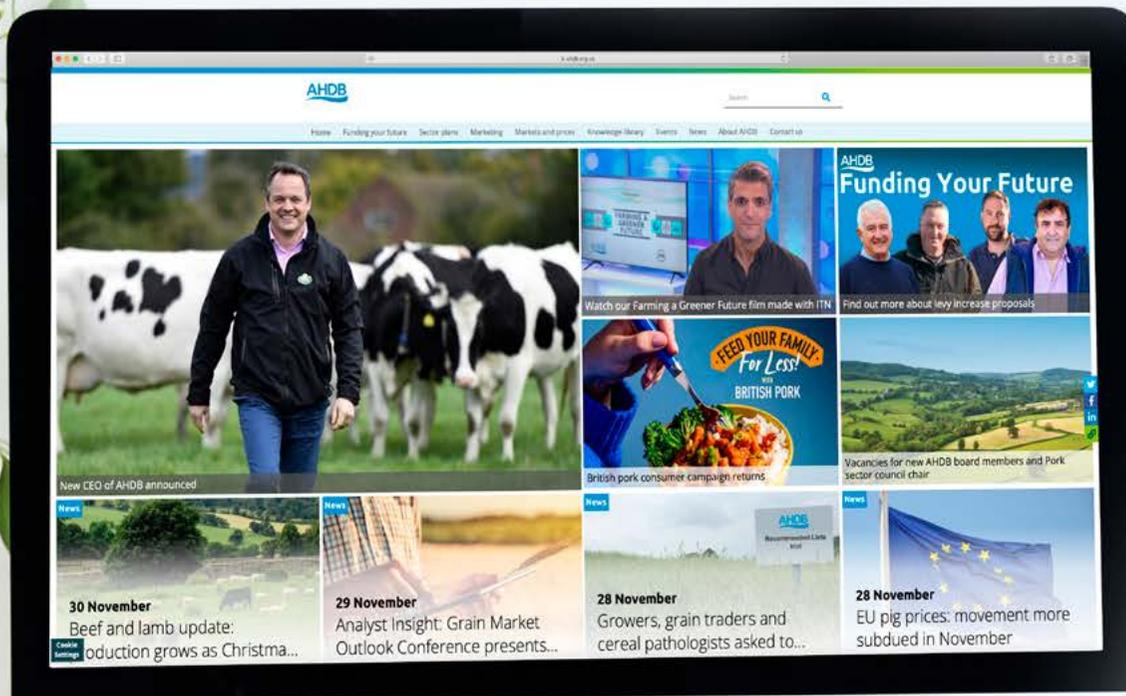
Previous/proposed name	Variety ID	UK contact
<b>Spring linseed</b>		
Paddington	YOB 01	267 Elsoms Seeds Ltd
Baroness	OVB 02	268 Elsoms Seeds Ltd
Genie	Y23/9C	269 JTSD Ltd
JT/11A/N	Nimbus	270 JTSD Ltd

Candidate varieties will be considered for the DL 2025.  
Varieties are ordered within a group by ascending variety ID.

After a candidate variety has been added to the GB and NI Variety Lists (VL), the data is published online ([ahdb.org.uk/rl](http://ahdb.org.uk/rl)) and on the RL app ([ahdb.org.uk/rlapp](http://ahdb.org.uk/rlapp)).

# A world of knowledge awaits

Find all of AHDB's resources in one place – [ahdb.org.uk](http://ahdb.org.uk)



## Quick links

RL tables: [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

Variety comments: [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

RL app: [ahdb.org.uk/rlapp](http://ahdb.org.uk/rlapp)

RL variety selection tool: [ahdb.org.uk/vst](http://ahdb.org.uk/vst)

Nutrients: [ahdb.org.uk/rb209](http://ahdb.org.uk/rb209)

Diseases (cereals): [ahdb.org.uk/cereal-dmg](http://ahdb.org.uk/cereal-dmg)

Diseases (oilseed rape): [ahdb.org.uk/osr-dmg](http://ahdb.org.uk/osr-dmg)

Pests: [ahdb.org.uk/pests](http://ahdb.org.uk/pests)

Weeds: [ahdb.org.uk/arableweeds](http://ahdb.org.uk/arableweeds)

Soils: [ahdb.org.uk/greatsoils](http://ahdb.org.uk/greatsoils)

Post-harvest: [ahdb.org.uk/harvest-toolkit](http://ahdb.org.uk/harvest-toolkit)

General: [ahdb.org.uk/cereals](http://ahdb.org.uk/cereals)

# Breeder and UK contact information

Abbreviation	Name	Web address
Ack	Ackermann Saatzeit GmbH	sz-ackermann.de
ADM	ADM Agriculture Ltd	adm-agri.co.uk
Agr	Agrii	agrii.co.uk
AgV	Agrovista UK Ltd	agrovista.co.uk
BA	Blackman Agriculture	
BASF	BASF Agricultural Solutions Seed US LLC	agricentre.basf.co.uk
Bilt	van de Bilt, Netherlands	
Bost	Boston Seeds Ltd	bostonseeds.com
Bre	Saatzeit Josef Breun, Germany	breun.de
Cal	Carlsberg Research Laboratory	
CBI	Cluser Breeding International GmbH	
CDC	CDC Saskatchewan	agbio.usask.ca/cdcflax
Cope	Cope Seeds & Grain	copeseeds.co.uk
Cor	Corteva Agriscience™	corteva.co.uk/pioneer
Dalt	Dalton Seeds	daltonseeds.co.uk
Dank	Danko Hodowla Roslin, Poland	danko.pl
Desp	Maison Florimond Desprez, France	florimond-desprez.com
DSV	DSV UK Ltd	dsv-uk.co.uk
Els	Elsoms Seeds Ltd	elsoms.com
ElsAck	Elsoms Ackermann Barley	elsoms.com
ElsW	Elsoms Wheat Ltd	elsoms.com
FrontAg	Frontier Agriculture Ltd	frontierag.co.uk
GKI	GK Kht, Hungary	
GSd	Grainseed	grainseed.co.uk
Hod	Hodowla Roslin Strzelce, Poland	hr-strzelce.pl
Hybro	Hybro, Germany	saaten-union.co.uk
IBERS	Institute of Biological, Environ. & Rural Sciences	aber.ac.uk/en/ibers
JTSD	JTSD Ltd	jttd.co.uk
KWS	KWS UK	kws-uk.com
KWSGmbH	KWS Lochow GmbH	kws-uk.com
Lant	Lantmannen SW Seed BV	lantmannen.com

Abbreviation	Name	Web address
LaS	Laboulet Semences, France	
Lemb	Lembke, Germany	
Lim	Limagrains UK	lgseeds.co.uk
LimEur	Limagrains Europe SA	lgseeds.co.uk
LS	Linéa Semences de lin	
LSPB	LS Plant Breeding	lspb.eu
Med	Medovarsky	
Mom	Momont, France	kws-uk.com
Nord	Nordsaat, Germany	nordsaat.de
NPZ	NPZ-Lembke, Germany	npz.de
NS	Nordic Seed, Denmark	nordicseed.com
PC	Premium Crops	premiumcrops.com
Pick	Mike Pickford	
PionOS	Pioneer Overseas Corporation	corteva.co.uk/pioneer
R2n	RAGT, France	ragt.co.uk
RAGT	RAGT Seeds	ragt.co.uk
Rapp	Robin Appel	robin-appel.com
SCP	Syngenta Crop Protection	syngenta-crop.co.uk
SE	Saatzeit Edelfhof, Austria	saatzeit.edelfhof.at
Sec	Secobra, France	secobra.fr/en/accueil
Sej	Sejet, Denmark	sejet.com
Selg	Selgen, Czech Republic	selgen.eu
Sen	Senova	senova.uk.com
SU	Saaten Union UK	saaten-union.co.uk
Syn	Syngenta UK Ltd	syngenta.co.uk
SyP	Syngenta Participations AG	syngenta.co.uk
TdL	Terre de Lin, France	
UOM	United Oilseeds Marketing	
Wier	Wiersum BV, Netherlands	
WPB	Wiersum Plant Breeding	

## Key index

*	Variety no longer under test in RL trials
[ ]	Limited data
[ [ ] ]	Very limited data
#	Hybrid variety
@	Believed to carry the <i>Pch1</i> Rendezvous resistance gene to eyespot
&	Dwarf variety
ALA	Alpha-linolenic acid
B	Brown seed
C	Yield control
Conv	Conventional open-pollinated variety
E	Recommended for the East region
E/W	Recommended for the East/West region
F	Full MBC approval in this segment
I	Intermediate

LSD	Least significant difference. Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
MBC	Malting Barley Committee
MR	Moderately resistant
N	Recommended for the North region
Nt	Not approved by MBC in this segment
P	Provisional MBC approval in this segment
P1	First year of listing
P2	Second year of listing
PGR	Plant growth regulator
R	Believed to be resistant to the trait
r	Young plant is resistant to yellow rust as shown by UKCPVS tests and RL trial data

s	Young plant is susceptible to yellow rust as shown by UKCPVS tests and RL trial data
S	Susceptible
Sp	Specific recommendation. For more details, please see table footnote
T	Under test for MBC approval in this segment
TuYV	<i>Turnip yellows virus</i>
UK	Recommended for the UK
UKFM	UK Flour Millers
W	Recommended for the West region
Y	Suited to that market
[Y]	May be suited to that market
Ye	Yellow seed



The AHDB Recommended Lists (RL) is managed by a project consortium of AHDB, BSPB, MAGB and UKFM.

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#### Preliminary data

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#### Processors

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#### Test and trials contractors

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#### Committee members and growers

AHDB wishes to thank all those who give freely of their time to serve on our committees and to the numerous growers across the country who host RL trials.



#### AHDB Cereals & Oilseeds

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AHDB is a statutory levy board, funded by farmers, growers and others in the supply chain. We equip the industry with easy to use, practical know-how which they can apply straight away to make better decisions and improve their performance. For further information, please visit [ahdb.org.uk](http://ahdb.org.uk)

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