

# AHDB Recommended Lists for cereals and oilseeds 2022/23



CEREALS & OILSEEDS

Produced in partnership with:



British Society of Plant Breeders



Maltsters Association of Great Britain



UK Flour Millers



# Using the AHDB Recommended Lists (RL)

This booklet contains tables for AHDB Recommended and Described varieties, and lists of candidate varieties. Use the guidance in this section to interpret the data within the tables.

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

## Shape the future of cereals and oilseeds



Have your say on the vital support we offer your business and the industry



Register now at  
[ahdb.org.uk/shape-the-future](http://ahdb.org.uk/shape-the-future)



### Contents

### Page

Using the AHDB Recommended Lists (RL)

2

### Wheat

Milling wheat information	5
Winter wheat septoria tritici disease resistance ratings	6
Winter wheat Recommended List	8
Spring wheat Recommended List	14
Candidate varieties	15

### Barley

Malting barley information	16
Winter barley Recommended List	17
Spring barley Recommended List	20
Candidate varieties	23

### Oats

Winter oats Recommended List	24
Spring oats Recommended List	25
Candidate varieties	26

### Winter oilseed rape

Regional rankings	27
Recommended List	28
Candidate varieties	32

### Descriptive Lists

Spring oilseed rape	33
Spring linseed	34
Winter triticale	35
Winter rye	36
Candidate varieties	37

Produced  
for you by

**AHDB**  
[ahdb.org.uk](http://ahdb.org.uk)

## Type of List

### Recommended Lists (RL)

Recommended Lists present data from a large number of trials. Recommended varieties are considered to have the potential to provide a consistent economic benefit to the UK cereals or oilseeds industry.

### Descriptive Lists (DL)

Descriptive Lists show trial data for spring oilseed rape, spring linseed, winter triticale and winter rye. The data available is presented 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 DL does not constitute a recommendation.

### Candidate Lists

Current candidate varieties are given, along with their breeder or UK contact, on pages following the main RL tables. Candidate varieties are usually in their first or second year of RL trials, having completed at least two years of preliminary trials (e.g. National List trials). If data is sufficient, they are considered for recommendation in the autumn.

Candidate Lists containing information on yields and agronomic features can be found on the RL website ([ahdb.org.uk/rl](http://ahdb.org.uk/rl)) once varieties have achieved National Listing. This information is also available on the RL app.

### Regional Lists for winter oilseed rape

Winter oilseed rape varieties are presented on a single UK list. Regional recommendations are also maintained, with varieties ordered according to the scope of recommendation. Varieties that are suitable for both the East/West and North regions have a UK recommendation. 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 1).

### Varities not added to the RL

For information on varieties grown in RL trials in 2021 but not added to the RL, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

## Status in the Lists

### Scope of recommendation

This may refer to a UK or regional recommendation, or a recommendation for a specific end use or agronomic feature.

### Varities no longer listed

Varities no longer recommended, or which the breeder has withdrawn from the RL. Before a variety is taken off the RL, it is normally removed from trials (indicated by an \* in the tables).

### Clubroot-resistant oilseed rape varieties

The pathogen that causes clubroot has several strains. The relative proportion of these strains varies from location to location. Clubroot-resistant varieties are 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 more virulent strains, potentially causing the resistance genes to become ineffective. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce risk of resistance breakdown ([ahdb.org.uk/clubroot](http://ahdb.org.uk/clubroot)).

### 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.

## Yield and quality

### Yields

Yields are calculated as a percentage of the controls. Established varieties are selected as 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%.

### Regional yields

Regional yields are calculated for winter wheat, winter barley, spring barley and winter oilseed rape. Regional yields are based on fewer trials and 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 (Figure 1).

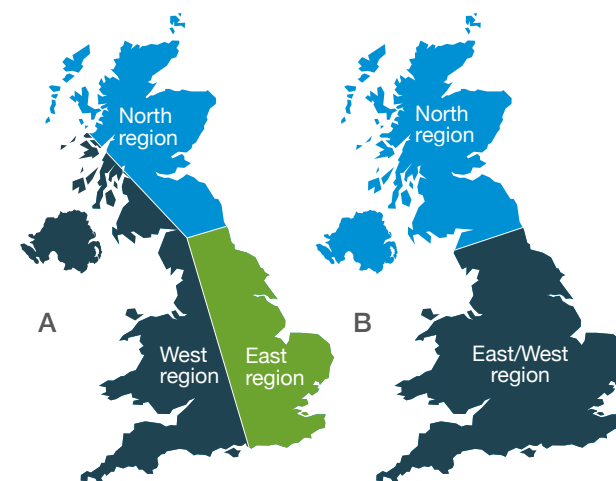


Figure 1. Regions used for calculation of regional yields  
A – Winter wheat, winter barley and spring barley regions  
B – Winter oilseed rape regions

### Annual yields

Collectively, annual yields provide a breakdown of variety performance in different seasons. Consistent yields over several years may indicate that a variety offers a level of yield stability.

### Oilseed rape gross output

Gross output is calculated from the seed yield with an adjustment to take account of the oil content.

### Oat quality

Grain quality characteristics presented for oats include kernel content, specific weight and per cent screenings through a 2 mm sieve (or 1.8 mm sieve in huskless (naked) oat varieties). High kernel content, high specific weight and low per cent screenings are preferred for milling.

## Agronomic traits

### Brackling

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 indicates high resistance to brackling.

### Lodging

Lodging scores are calculated for varieties grown with and without plant growth regulator (PGR) application. A higher number indicates a variety is more resistant to lodging.

The scales used to calculate the lodging ratings for the RL 2022/23 have been adjusted to include susceptible and resistant fixed points. The aim is to make the ratings more representative of what is seen in the field and improve consistency of the ratings over years. This has contributed to a drop in ratings for some varieties, compared to the 2021/22 RL. However, this does not mean that these varieties have become more susceptible since last year. As for all ratings, statistical significance (LSD) should be taken into account when deciding if varieties have a different susceptibility to lodging.

### Ripening

In cereal crops, ripening 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, but differences can be far greater on farm, particularly where growing conditions are more marginal.

### Flowering and maturity in oilseeds

In oilseed crops, flowering and maturity are scored on a 1–9 scale, where one is late and nine is early. Flowering is on a relative scale, with the earliest flowering variety scoring nine. Maturity is based on the degree of canopy senescence and is recorded just prior to swath or desiccation.

### Sprouting

Sprouting resistance is based on special irrigated test plots. A higher number represents better resistance to sprouting. 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.

### Basis of pest and disease resistance

Varietal resistance to pests and diseases forms the foundation of integrated pest management (IPM). Broadly speaking, there are two kinds 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 defeated by specific pathogen races relatively soon after a variety is released.

Important exceptions are the very 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. A new major gene may be more durable when it is combined with a background of minor genes. As pathogen populations evolve, previously defeated genes may become effective again, so varietal disease ratings can go up as well as down.

The *mlo* resistance gene in spring barley confers almost complete resistance to barley powdery mildew. All spring barley varieties on the current Recommended List carry this gene and can, therefore, be assumed to be resistant to powdery mildew.

### Statistical significance (LSD)

Natural variability within and between trials means that smaller differences between mean yields of varieties may just be attributed to chance. For most numerical characteristics in the tables, an average LSD (least significant difference) is reported. 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.

## 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. Varieties with ratings of 8 or 9 can be said to have high resistance; however, the ratings cannot determine the durability of the resistance.

With the exception of eyespot, the disease rating scales are not linear. A difference of 1 on the scale reflects a larger difference in disease susceptibility at low ratings than at high ratings.

The ratings can be read alongside the untreated yield, which provides an indication of the potential yield reduction as a consequence of a combination of all diseases.



## Milling wheat information

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 farmers should speak to merchants before committing to varieties to ensure a suitable end market.

### UK Flour Millers (UKFM)

Many considerations will affect wheat variety choice, but there is a consistent market for UK-grown quality wheat, with UK Flour Millers member companies milling more than 5 million tonnes of wheat each year. To maximise income from milling wheat, farmers should aim to grow for a specific market, and the preference of local millers should always be an important factor. In addition, it is critical to meet target specifications. Nitrogen management of newer, higher-yielding milling wheat varieties is particularly important.

The UK Flour Millers website ([ukflourmillers.org](http://ukflourmillers.org)) offers further information on milling wheat quality requirements and the structure and needs of the milling industry. It also features a tool to identify local mills: [ukflourmillers.org/millmap](http://ukflourmillers.org/millmap)

### Exports

There is a core market overseas for UK-grown quality wheat and 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. AHDB has developed the **uks** (soft biscuit wheat) and **ukp** (bread wheat) classifications. These help overseas buyers, who may be unfamiliar with individual varieties, to understand the qualities that the grain possesses. Overseas buyers commonly use the Chopin Alveograph test (see Table 1). North African and Middle Eastern markets prefer a lower moisture content, often less than 14%.

Each year, AHDB carries out a survey of around 250 commercially sourced wheat samples using

## The AHDB Nutrient Management Guide (RB209)

Download or order from [ahdb.org.uk/rb209](http://ahdb.org.uk/rb209)

Updated winter 2021/22

**Access RB209 on our app**  
Available on Google Play and App Store

GET IT ON Google Play

Download on the App Store

Table 1. Typical specifications for milling wheat

	UKFM Group 1	UKFM Group 2	UKFM Group 3	<b>ukp</b>	<b>uks</b>
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)

The W and P/L values are determined by the Chopin Alveograph test, commonly used by overseas buyers. W represents a measure of the baking strength of a dough. A higher number represents a stronger flour. L represents the extensibility of the dough (time taken for a bubble to burst). P is the maximum pressure required. A low P/L measure represents a dough which is very extensible with low strength.

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

the Alveograph and Wet Gluten tests. The survey uses RL varieties, with the final selection based on AHDB Planting and Variety survey data. The survey helps to determine the quality of the farm-grown **ukp** and **uks**

wheat varieties in each season and supports the marketing efforts of the export business sector ([ahdb.org.uk/cereal-exports](http://ahdb.org.uk/cereal-exports)).

# Winter wheat septoria tritici disease resistance ratings

In general, septoria disease pressure was relatively high in 2021, especially late in the season. Some varieties, in RL trials and commercial settings, had higher septoria levels than would be expected from their 2021/22 disease ratings. Analysis of the data has resulted in lower septoria ratings for many varieties, especially those with Cougar in their parentages.

Introduced in 2013, Cougar had the highest septoria tritici resistance rating on the RL. However, by 2015 the variety showed a relatively large increase in disease levels. AHDB-funded investigations, led by NIAB, showed that this was due to septoria variants able to potentially overcome resistance in Cougar. At that time, no other varieties were affected. In 2020, further new variants were identified in Ireland that were also able to cause disease on Cougar and varieties descended from this variety.

The use of Cougar in breeding programmes means the 2022/23 RL features ten varieties with Cougar in their backgrounds. Varietal resistance to septoria tritici is the result of the cumulative effect of multiple genes. As a result, the contribution of the 'Cougar resistance' and the shift in disease resistance in each of these varieties differs.

## 2022/23 resistance ratings

In the 2022/23 RL, septoria tritici disease resistance ratings have been prepared using the standard three-year data set (2019–21\*). In addition, the 2021 data has been used to produce one-year ratings to help reveal the influence of the 2021 season, including the relatively large impact on Cougar descendants (Figure 2).

## Management implications

The 2021 one-year ratings help to highlight varieties that may benefit from closer monitoring. However, caution needs to be applied, as:

- It uses a relatively small data set
- It is not known how the septoria tritici pathogen population will change

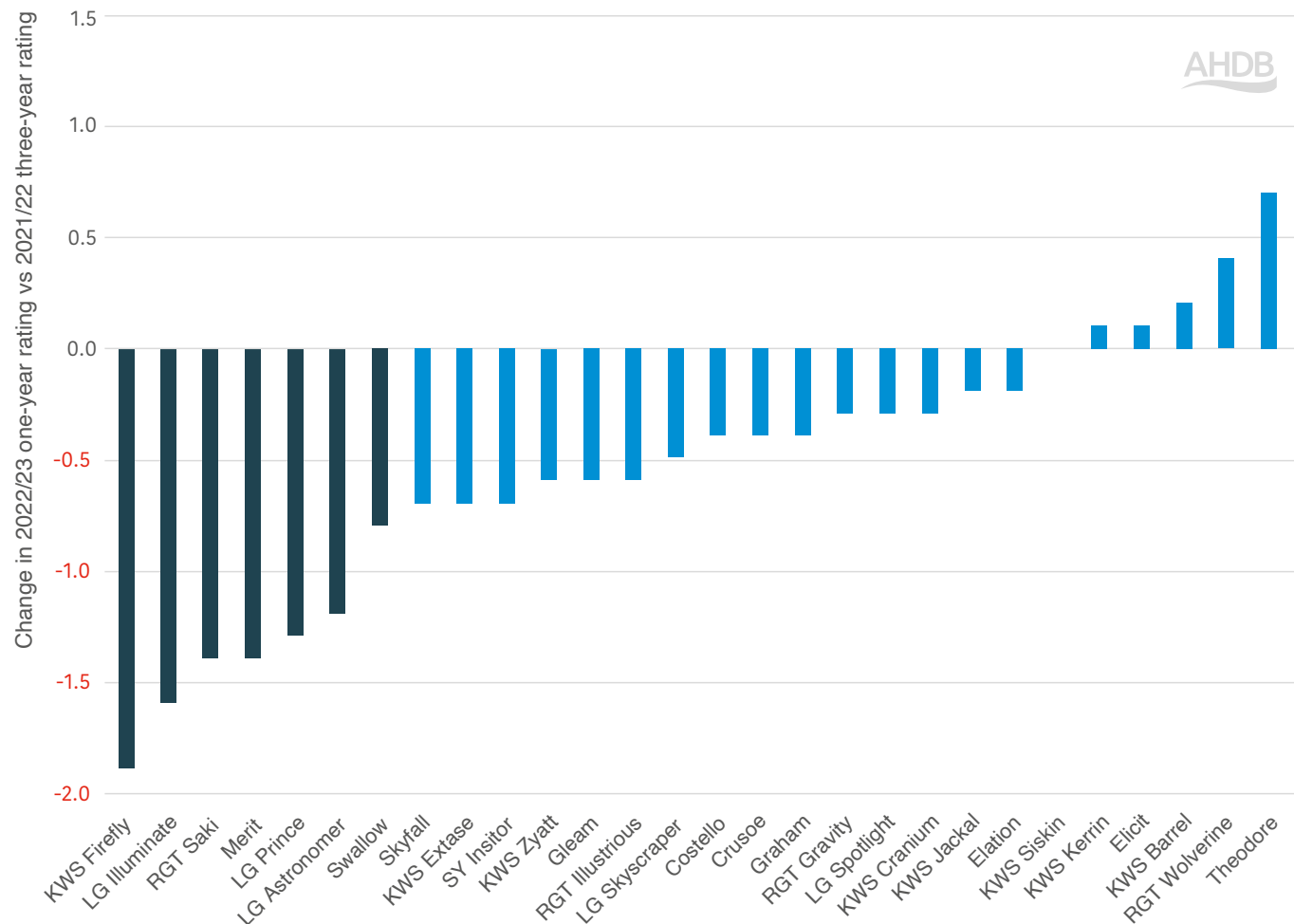


Figure 2. How septoria tritici disease resistance ratings have changed in the RL 2022/23 (2021 one-year data set), relative to RL 2021/22 (2017–20 three-year data set). The dark blue bars indicate known Cougar descendants. New varieties are not included. Variety parentage can be found at [ahdb.org.uk/rl](https://ahdb.org.uk/rl)

- Changes were not uniform across the UK, resistance in Cougar descendants appeared to hold up better in Scotland

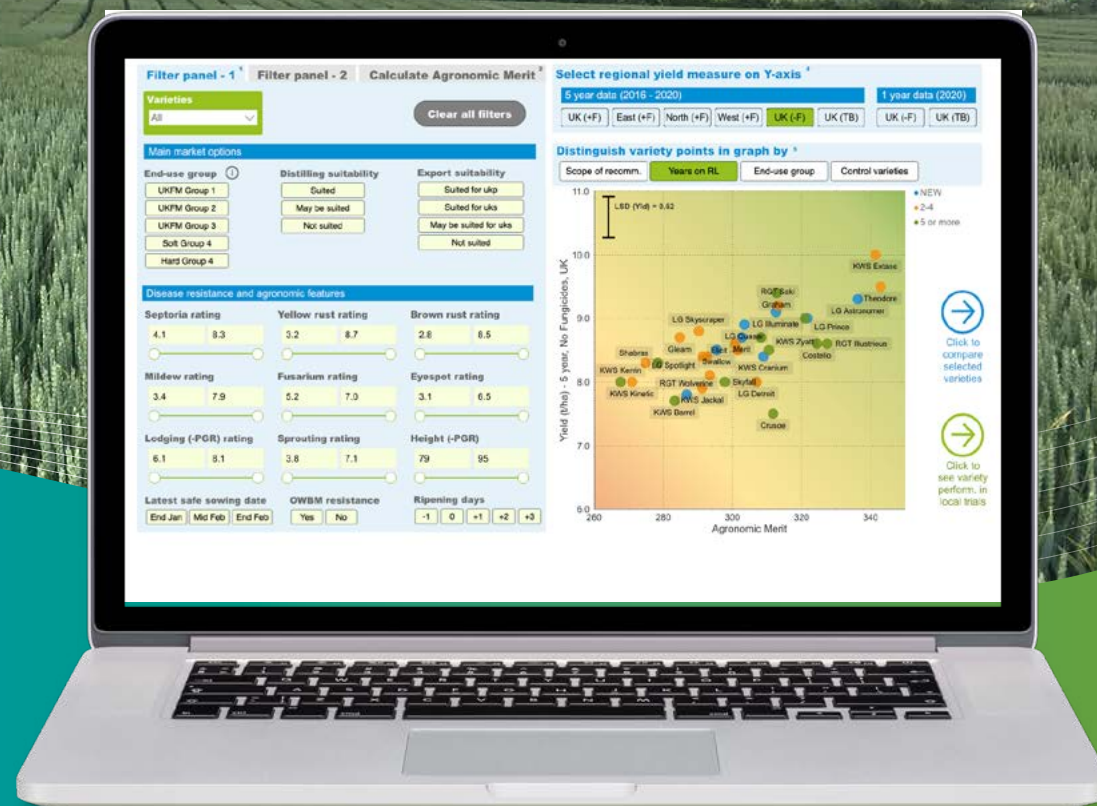
Current evidence suggests fungicide efficacy is not affected\*\*. However a more robust fungicide spray programme may be required to control septoria on affected varieties.

\*In the three-year data set, each year is weighted equally.

\*\*Sensitivity of the Cougar-virulent septoria tritici variants to fungicides is similar to the wider septoria tritici population – as tested in 2020 (Ireland, Teagasc) and 2015 (UK, AHDB).

# Variety selection tool

A different perspective on the RL



- Identify the most promising varieties
- Use filters to specify market and agronomic requirements
- Find varieties with the greatest genetic potential to resist lodging and key diseases

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



# Winter wheat 2022/23

## Market options, yield and grain quality



	KWS Zyatt	Skyfall	Crusoe	RGT Illustrious	KWS Extase	KWS Palladium	KWS Siskin	Mayflower	KWS Guium	LG Prince	KWS Britum	KWS Firefly	RGT Rashid	LG Illuminate	LG Astronomer	Merit	KWS Barrel	Elicit	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	UK	UK	E	UK	UK	
Variety status	C				NEW C NEW				NEW		NEW		NEW				*C		
Fungicide-treated grain yield (% treated control)																			
United Kingdom (10.8 t/ha)	98	97	96	96	101	100	98	97	102	101	100	100	100	100	100	99	99	98	2.3
East region (10.7 t/ha)	98	97	96	95	100	99	98	98	102	102	101	101	102	100	100	101	99	98	2.6
West region (11.0 t/ha)	99	96	97	97	102	101	99	97	100	101	100	100	97	100	99	97	99	98	2.9
North region (11.1 t/ha)	98	96	94	94	99	[99]	98	[96]	[101]	99	[101]	99	[97]	101	97	100	102	99	3.4
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	-	-	-	-	-	-	-	-	-	-	
UK biscuit, cake-making	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
UK distilling	-	-	-	-	-	-	-	-	[Y]	[Y]	[Y]	-	[Y]	[Y]	[Y]	[Y]	-	Y	
ukp bread wheat for export	Y	-	Y	-	Y	-	Y	[Y]	-	-	-	-	-	-	-	-	-	-	
uks soft wheat for export	-	-	-	-	-	-	-	-	-	-	-	Y	-	[Y]	-	[Y]	Y	Y	
Grain quality																			
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	
Protein content (%)	12.2	12.2	12.7	12.2	11.9	11.8	11.9	11.9	11.3	11.1	11.5	11.7	11.1	11.8	11.7	11.5	11.2	11.5	0.2
Protein content (%) – Milling spec	13.1	13.2	13.5	13.0	12.7	[13.1]	12.7	[12.9]	[12.0]	11.9	[12.3]	12.6	[11.8]	12.7	12.6	12.4	12.0	12.4	0.5
Hagberg Falling Number	260	273	274	270	289	315	282	294	255	253	268	240	226	249	232	258	240	208	25.6
Specific weight (kg/hl)	77.5	78.3	77.8	77.1	78.5	76.9	76.7	78.5	78.1	74.0	77.3	75.3	76.4	76.2	77.4	76.2	76.9	76.4	0.6
Chopin Alveograph W	[175]	[251]	230	-	190	[179]	163	198	[56]	[71]	[74]	90	[72]	82	[132]	79	102	91	25.1
Chopin Alveograph P/L	[0.7]	[0.9]	0.6	-	0.6	[0.6]	0.5	0.7	[0.3]	[0.2]	[0.3]	0.3	[0.3]	0.3	[0.4]	0.2	0.3	0.2	0.2

**Varieties no longer listed:** KWS Kinetic, LG Detroit, LG Quasar, LG Sundance and Shabras.  
Comparisons of varieties across regions are not valid. See page 3 for information on regional yields.  
All yields in this table are taken from treated trials receiving a full fungicide and PGR programme.

UKFM = UK Flour Millers	C = Yield control (for current table)	[ ] = Limited data	LSD = Least significant difference
UK = Recommended for the UK	* = Variety no longer under test in RL trials	Y = Suited to that market	Average LSD (5%): Varieties that are more
E = Recommended for the East region	PGR = Plant growth regulator	[Y] = May be suited to that market	than one LSD apart are significantly different
			at the 95% confidence level



# Winter wheat 2022/23

## Market options, yield and grain quality



	RGT Bairstow	LG Skyscraper	RGT Saki	RGT Stokes	LG Spotlight	Elation	KWS Jackal	Swallow	Champion	KWS Dawsum	SY Insitor	Glean	KWS Kerrin	LG Typhoon	KWS Cranium	Graham	RGT Gravity	Costello	RGT Wolverine	Theodore	Average LSD (5%)
End-use group	Soft Group 4									Hard Group 4											
Scope of recommendation	UK	UK	UK	UK	UK	N	N	N	UK	UK	UK	UK	E&W	UK	UK	UK	UK	UK	Sp	W	
Variety status	NEW	C		NEW	*				NEW	NEW		C	*	NEW			*				
<b>Fungicide-treated grain yield (% treated control)</b>																					
United Kingdom (10.8 t/ha)	103	103	103	102	102	100	99	99	106	104	104	103	102	102	102	102	101	100	99	98	2.3
East region (10.7 t/ha)	103	103	103	101	101	100	99	98	107	103	104	103	102	102	102	100	102	99	98	98	2.6
West region (11.0 t/ha)	103	103	103	105	103	100	98	99	105	106	104	103	103	102	101	104	101	100	100	101	2.9
North region (11.1 t/ha)	[103]	102	102	[104]	101	101	100	101	[103]	[106]	105	103	[101]	[102]	101	102	100	100	100	[91]	3.4
<b>Main market options (The specific attributes of varieties are different, so, whenever possible, varieties should not be mixed in store)</b>																					
UK bread-making	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
UK distilling	Y	[Y]	-	Y	[Y]	Y	[Y]	Y	-	-	-	-	-	-	-	-	-	-	-	-	
ukp bread wheat for export	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
uks soft wheat for export	-	-	-	-	-	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Grain quality</b>																					
Endosperm texture	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	
Protein content (%)	11.2	11.3	11.4	11.3	11.3	11.5	11.1	11.2	11.4	11.2	10.8	11.2	10.7	11.1	11.2	11.3	11.3	11.8	11.0	12.0	0.2
Protein content (%) – Milling spec	[12.2]	12.2	12.2	[12.5]	12.1	12.4	12.0	12.3	[12.4]	[12.1]	11.5	12.0	11.4	[11.8]	12.0	11.9	12.0	12.7	11.8	12.9	0.5
Hagberg Falling Number	228	214	220	248	286	212	179	249	239	304	270	220	149	169	279	275	193	322	268	306	25.6
Specific weight (kg/hl)	75.9	76.5	75.6	75.3	77.7	76.9	74.8	75.8	74.8	79.4	78.2	76.3	76.1	76.3	75.1	76.9	75.6	80.6	75.5	73.8	0.6
Chopin Alveograph W	[50]	-	-	[61]	-	95	-	-	-	-	-	-	-	-	-	-	-	-	[147]	-	25.1
Chopin Alveograph P/L	[0.3]	-	-	[0.3]	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	[0.7]	-	0.2


**Varieties no longer listed:** KWS Kinetic, LG Detroit, LG Quasar, LG Sundance and Shabras.  
Comparisons of varieties across regions are not valid. See page 3 for information on regional yields.  
All yields in this table are taken from treated trials receiving a full fungicide and PGR programme.

UK	= Recommended for the UK	Sp	= Specific recommendation. RGT Wolverine has a specific recommendation for resistance to Barley yellow dwarf virus (BYDV). Resistance to BYDV has not been verified in Recommended List tests	C	= Yield control (for current table)	[ ]	= Limited data	LSD	= Least significant difference
E	= Recommended for the East region			*	= Variety no longer under test in RL trials	Y	= Suited to that market	Average LSD (5%):	Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W	= Recommended for the West region			PGR	= Plant growth regulator	[Y]	= May be suited to that market		
N	= Recommended for the North region								

# Winter wheat 2022/23

## Yield, agronomy and disease resistance




  
RECOMMENDED

	KWS Zyatt	Skyfall	Crusoe	RGT Illustrious	KWS Extase	KWS Palladium	KWS Siskin	Mayflower	KWS Guium	LG Prince	KWS Brium	KWS Firefly	RGT Rashid	LG Illuminate	LG Astronomer	Merit	KWS Barrel	Elicit	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	UK	UK	E	UK	UK	
Variety status	C				NEW C NEW				NEW		NEW		NEW				*C		
Fungicide-treated grain yield (% treated control)																			
United Kingdom (10.8 t/ha)	98	97	96	96	101	100	98	97	102	101	100	100	100	100	100	99	99	98	2.3
East region (10.7 t/ha)	98	97	96	95	100	99	98	98	102	102	101	101	102	100	100	101	99	98	2.6
West region (11.0 t/ha)	99	96	97	97	102	101	99	97	100	101	100	100	97	100	99	97	99	98	2.9
North region (11.1 t/ha)	98	96	94	94	99	[99]	98	[96]	[101]	99	[101]	99	[97]	101	97	100	102	99	3.4
Untreated grain yield (% treated control)																			
United Kingdom (10.8 t/ha)	76	70	72	81	93	90	83	90	78	83	80	79	79	84	86	81	73	78	6.0
Agronomic features																			
Resistance to lodging without PGR (1–9) – see page 4	8	8	8	7	7	7	6	6	7	7	7	8	8	7	7	6	8	6	1.1
Resistance to lodging with PGR (1–9) – see page 4	8	8	7	8	8	8	7	7	7	8	7	8	8	7	9	7	8	7	1.0
Height without PGR (cm)	85	84	82	89	90	84	84	89	90	83	92	83	86	83	88	88	84	86	1.7
Ripening (days +/- Skyfall, -ve = earlier)	0	0	+1	+1	-1	-1	0	0	+3	+2	+2	+1	+3	+1	+1	+1	+1	+1	0.7
Resistance to sprouting (1–9)	5	5	6	6	[7]	-	5	-	-	[6]	-	[6]	-	[7]	[7]	[6]	6	5	1.3
Disease resistance																			
Mildew (1–9)	7	6	7	7	7	8	8	8	5	4	7	5	4	5	4	4	6	6	1.3
Yellow rust (1–9)	4	3	9	8	8	9	9	9	9	8	9	6	8	7	8	8	6	8	0.6
Brown rust (1–9)	6	8	3	6	7	5	5	6	3	7	5	5	6	7	8	7	5	6	1.0
Septoria tritici (1–9)	6.1	5.3	6.2	5.7	7.8	7.4	6.5	8.4	4.7	6.4	5.4	5.7	6.9	6.1	6.8	5.8	4.3	4.9	1.3
Septoria tritici (1–9) – one-year rating – see page 6	5.8	5.1	5.9	5.4	7.3	7.2	6.5	8.2	5.0	5.8	5.6	4.9	6.4	5.4	6.2	5.2	4.4	5.2	1.2
Eyespot (1–9)	6@	7@	5	7@	3	[6]	4	[6]@	[4]	5	[6]	3	[4]	5	5	3	4	3	2.9
Fusarium ear blight (1–9)	6	7	7	6	6	6	6	6	7	6	6	5	7	5	6	6	6	6	0.4
Orange wheat blossom midge	-	R	-	-	-	-	-	-	R	R	-	R	R	R	R	R	R	R	

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Comparisons of varieties across regions are not valid. See page 3 for information on regional yields.

UKFM = UK Flour Millers  
UK = Recommended for the UK  
E = Recommended for the East region

C = Yield control (for current table)  
\* = Variety no longer under test in RL trials  
PGR = Plant growth regulator  
[] = Limited data

@ = Believed to carry the *Pch1* Rendezvous resistance gene to eyespot, but this has not been verified in Recommended List tests  
R = Believed to be resistant to orange wheat blossom midge (OWBM), but this has not been verified in Recommended List tests

LSD = Least significant difference  
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level



# Winter wheat 2022/23

## Yield, agronomy and disease resistance



	RGT Bairstow	LG Skyscraper	RGT Saki	RGT Stokes	LG Spotlight	Elation	KWS Jackal	Swallow	Champion	KWS Dawson	SY Insitor	Gleam	KWS Kerrin	LG Typhoon	KWS Cranium	Graham	RGT Gravity	Costello	RGT Wolverine	Theodore	Average LSD (5%)
End-use group	Soft Group 4								Hard Group 4												
Scope of recommendation	UK	UK	UK	UK	UK	N	N	N	UK	UK	UK	UK	E&W	UK	UK	UK	UK	UK	Sp	W	
Variety status	NEW	C		NEW	*				NEW	NEW		C	*	NEW			*				
<b>Fungicide-treated grain yield (% treated control)</b>																					
United Kingdom (10.8 t/ha)	103	103	103	102	102	100	99	99	106	104	104	103	102	102	102	102	101	100	99	98	2.3
East region (10.7 t/ha)	103	103	103	101	101	100	99	98	107	103	104	103	102	102	102	100	102	99	98	98	2.6
West region (11.0 t/ha)	103	103	103	105	103	100	98	99	105	106	104	103	103	102	101	104	101	100	100	101	2.9
North region (11.1 t/ha)	[103]	102	102	[104]	101	101	100	101	[103]	[106]	105	103	[101]	[102]	101	102	100	100	100	[91]	3.4
<b>Untreated grain yield (% treated control)</b>																					
United Kingdom (10.8 t/ha)	85	82	85	83	77	77	74	79	90	92	78	80	73	89	79	88	77	81	69	88	6.0
<b>Agronomic features</b>																					
Resistance to lodging without PGR (1–9) – see page 4	6	6	6	5	7	7	7	[8]	6	7	6	7	7	7	8	7	6	8	7	[6]	1.1
Resistance to lodging with PGR (1–9) – see page 4	6	6	7	7	8	8	6	9	7	7	7	7	7	7	8	8	7	8	7	8	1.0
Height without PGR (cm)	91	92	88	91	93	83	87	80	88	84	95	87	88	88	89	88	89	83	87	84	1.7
Ripening (days +/- Skyfall, -ve = earlier)	+2	0	+3	+2	+1	+1	+1	+1	0	+1	+1	0	+1	+2	+3	-1	+1	+2	+2	0	0.7
Resistance to sprouting (1–9)	-	[5]	[6]	-	[7]	5	5	[5]	-	-	[5]	5	5	-	[6]	7	5	6	[6]	[7]	1.3
<b>Disease resistance</b>																					
Mildew (1–9)	6	7	5	5	6	7	7	6	7	8	6	6	7	7	6	7	5	8	6	[7]	1.3
Yellow rust (1–9)	7	7	8	7	5	8	8	6	8	9	5	5	4	9	8	7	6	9	4	9	0.6
Brown rust (1–9)	6	5	7	5	6	5	5	6	5	7	5	6	7	6	4	5	6	5	8	8	1.0
Septoria tritici (1–9)	6.4	4.9	5.9	6.9	5.1	4.0	4.6	5.5	7.7	6.3	6.5	5.8	4.6	7.2	5.9	6.7	4.7	5.8	5.7	8.5	1.3
Septoria tritici (1–9) – one-year rating – see page 6	6.0	4.6	5.1	6.2	4.9	3.9	4.6	4.9	8.0	6.1	6.1	5.5	4.9	6.9	5.7	6.4	4.6	5.6	5.7	9.0	1.2
Eyespot (1–9)	[4]	4	4	[4]	5	4	4	2	[4]	[5]	4	4	4	[6]	5	3	4	4	6	[4]	2.9
Fusarium ear blight (1–9)	6	6	6	6	6	6	6	5	6	6	7	6	5	6	6	7	6	6	6	5	0.4
Orange wheat blossom midge	R	R	R	-	R	R	R	R	R	-	R	R	R	R	R	-	R	-	-	-	

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Comparisons of varieties across regions are not valid. See page 3 for information on regional yields.

UK = Recommended for the UK	Sp = Specific recommendation.	C = Yield control (for current table)	R = Believed to be resistant to orange wheat blossom midge (OWBM), but this has not been verified in Recommended List tests	LSD = Least significant difference
E = Recommended for the East region	RGT Wolverine has a specific recommendation for resistance to Barley yellow dwarf virus (BYDV). Resistance to BYDV has not been verified in Recommended List tests	* = Variety no longer under test in RL trials		Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W = Recommended for the West region		PGR = Plant growth regulator		
N = Recommended for the North region		[] = Limited data		

# Winter wheat 2022/23

## Supplementary data



	KWS Zyatt	Skyfall	Crusoe	RGT Illustrious	KWS Extase	KWS Palladium	KWS Siskin	Mayflower	KWS Guium	LG Prince	KWS Brium	KWS Firefly	RGT Rashid	LG Illuminate	LG Astronomer	Merit	KWS Barrel	Elicit	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	UK	UK	E	UK	UK	
Variety status	C					NEW	C	NEW	NEW		NEW		NEW				*C		
Breeder/UK contact																			
Breeder	KWS	RAGT	Lim	R2n	Mom	KWS	KWS	ElsW	KWS	LimEur	KWS	KWS	RAGT	LimEur	LimEur	ElsW	KWS	ElsW	
UK contact	KWS	RAGT	Lim	RAGT	KWS	KWS	KWS	Els	KWS	Lim	KWS	KWS	RAGT	Lim	Lim	Els	KWS	Els	
Annual treated yield (% control)																			
2017 (11.2 t/ha)	100	97	95	96	99	-	98	-	-	-	-	100	-	-	-	-	101	98	-
2018 (10.7 t/ha)	98	97	95	96	101	-	100	-	-	100	-	101	-	100	99	100	99	98	-
2019 (11.6 t/ha)	96	95	98	94	100	100	99	98	100	101	100	101	98	101	100	100	101	99	-
2020 (10.3 t/ha)	97	96	95	97	100	[100]	97	[96]	[103]	102	[102]	100	[100]	101	99	100	101	98	-
2021 (10.8 t/ha)	100	97	96	94	103	99	97	96	100	99	100	98	98	98	98	98	100	97	-
Rotational position																			
First cereal (11.1 t/ha)	98	96	96	96	101	100	98	97	101	100	100	100	100	100	99	99	100	98	2.3
Second and more (9.6 t/ha)	99	98	94	94	101	100	98	99	101	103	101	101	100	100	100	100	98	98	3.6
Sowing date (most trials were sown in October)																			
Early sown (before 25 Sept) (11.3 t/ha)	[100]	96	96	97	[[97]]	-	99	-	[103]	102	[101]	101	-	104	[103]	[100]	100	99	5.4
Late sown (after 1 Nov) (9.2 t/ha)	98	97	95	95	102	[99]	98	[95]	[101]	101	[101]	101	[103]	98	100	102	100	97	3.7
Soil type (about 50% of trials are on medium soils)																			
Light soils (10.9 t/ha)	97	97	94	94	102	[98]	98	[97]	[101]	102	[100]	100	[99]	101	100	101	100	98	3.5
Heavy soils (10.9 t/ha)	99	97	97	96	100	98	98	97	102	101	99	101	100	100	101	100	99	97	3.0
Agronomic features																			
Lodging % without PGR	2	1	2	3	4	4	13	8	3	5	3	1	2	4	3	13	2	10	
Lodging % with PGR	1	3	3	1	2	2	8	6	4	3	5	1	2	5	1	8	3	4	
Latest safe-sowing date <sup>□</sup>	End Jan	End Feb	End Jan	Mid Feb	End Jan	[[Mid Feb]]	End Jan	[[Mid Feb]]	[[Mid Feb]]	[End Jan]	[[End Feb]]	End Feb	[[Mid Feb]]	[Mid Feb]	[Mid Feb]	[Mid Feb]	End Jan	Mid Feb	
Speed of development to growth stage 31 (days +/- average)																			
Early sown (Sept)	-2	-2	-1	0	-4	[-2]	-3	[-4]	[+2]	[-2]	[+2]	-2	[+2]	[-2]	[-8]	[0]	+5	-1	8.0
Med sown (Oct)	-4	-4	-2	+1	-7	-	-5	-	-	[-1]	-	-3	-	[-3]	[0]	[-6]	-1	+2	9.3
Late sown (Nov)	-2	-2	0	-1	-4	-	-2	-	[0]	[+1]	-	-1	-	[-2]	[+1]	[-1]	+2	+2	5.3
Status in RL system																			
Year first listed	17	14	12	16	19	22	16	22	22	21	22	19	22	21	21	21	16	18	
RL status	-	-	-	-	-	P1	-	P1	P1	P2	P1	-	P1	P2	P2	P2	*	-	

All yields in this table are taken from treated trials receiving a full fungicide and PGR programme.

UKFM = UK Flour Millers	PGR = Plant growth regulator	[[ ]] = Very limited data	KWS = KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	R2n = RAGT, France ( <a href="http://ragt.co.uk">ragt.co.uk</a> )
UK = Recommended for the UK	□ = Latest safe-sowing date is the advised latest sowing time to give a sufficient cold period for flowering	P1 = First year of recommendation	Lim = Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )	RAGT = RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )
E = Recommended for the East region		P2 = Second year of recommendation	LimEur = Limagrain Europe SA ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )	LSD = Least significant difference
C = Yield control (for current table)		Els = Elsoms Seeds Ltd ( <a href="http://elsoms.com">elsoms.com</a> )	Mom = Momont, France ( <a href="http://kws-uk.com">kws-uk.com</a> )	Average LSD (5%); Varieties that are more than one LSD apart are significantly different at the 95% confidence level
* = Variety no longer under test in RL trials	[] = Limited data	ElsW = Elsoms Wheat Ltd ( <a href="http://elsoms.com">elsoms.com</a> )		



# Winter wheat 2022/23

## Supplementary data



	RGT Bairstow	LG Skyscraper	RGT Saki	RGT Stokes	LG Spotlight	Elation	KWS Jackal	Swallow	Champion	KWS Dawsum	SY Insitor	Gleam	KWS Kerrin	LG Typhoon	KWS Cranium	Graham	RGT Gravity	Costello	RGT Wolverine	Theodore	Average LSD (5%)
End-use group	Soft Group 4									Hard Group 4											
Scope of recommendation	UK	UK	UK	UK	UK	N	N	N	UK	UK	UK	UK	E&W	UK	UK	UK	UK	UK	Sp	W	
Variety status	NEW	C		NEW	*				NEW	NEW		C	*	NEW			*				
Breeder/UK contact																					
Breeder	RAGT	LimEur	RAGT	RAGT	LimEur	ElsW	KWS	BA	DSV	KWS	SyP	SyP	KWS	LimEur	KWS	SyP	R2n	KWS	R2n	DSV	
UK contact	RAGT	Lim	RAGT	RAGT	Lim	Els	KWS	Sen	DSV	KWS	Syn	Syn	KWS	Lim	KWS	Syn	RAGT	Sen	RAGT	DSV	
Annual treated yield (% control)																					
2017 (11.2 t/ha)	-	103	102	-	103	100	100	-	-	-	103	102	101	-	-	102	102	100	-	96	-
2018 (10.7 t/ha)	-	102	102	-	100	100	100	100	-	-	103	103	102	-	102	101	100	100	100	97	-
2019 (11.6 t/ha)	103	103	103	104	102	99	100	99	104	104	105	103	102	102	101	102	101	99	101	97	-
2020 (10.3 t/ha)	[104]	103	104	[102]	103	101	100	101	[105]	[106]	103	103	102	[102]	103	102	102	100	101	[96]	-
2021 (10.8 t/ha)	102	102	102	104	103	101	97	98	106	105	106	105	103	102	100	104	101	100	96	97	-
Rotational position																					
First cereal (11.1 t/ha)	103	103	103	103	102	100	99	99	105	105	104	103	102	101	102	102	101	100	99	98	2.3
Second and more (9.6 t/ha)	104	104	103	103	101	102	100	100	107	104	104	103	102	104	102	101	103	99	99	[100]	3.6
Sowing date (most trials were sown in October)																					
Early sown (before 25 Sept) (11.3 t/ha)	-	103	104	-	101	100	101	101	[106]	[108]	[107]	103	[102]	[105]	[102]	100	100	99	[100]	97	5.4
Late sown (after 1 Nov) (9.2 t/ha)	[104]	103	104	[100]	102	101	100	97	[106]	[104]	104	103	103	[101]	104	100	103	102	99	[99]	3.7
Soil type (about 50% of trials are on medium soils)																					
Light soils (10.9 t/ha)	[104]	103	102	[104]	101	101	99	101	[105]	[105]	106	103	102	[102]	103	102	102	99	97	[97]	3.5
Heavy soils (10.9 t/ha)	104	103	102	102	102	100	100	98	106	104	104	103	101	101	100	101	101	99	99	99	3.0
Agronomic features																					
Lodging % without PGR	12	9	9	30	4	3	6	1	11	5	13	5	5	4	2	7	8	3	5	9	
Lodging % with PGR	10	13	4	8	2	3	10	1	8	3	5	5	8	5	3	2	8	2	5	2	
Latest safe-sowing date <sup>□</sup>	[Mid Feb]	End Jan	End Jan	[End Jan]	End Feb	Mid Feb	End Jan	[End Feb]	[Mid Feb]	[End Jan]	End Jan	Mid Feb	End Jan	[Mid Feb]	[Mid Feb]	End Jan	End Jan	End Jan	[End Jan]	End Jan	
Speed of development to growth stage 31 (days +/- average)																					
Early sown (Sept)	[+3]	-4	+7	[+2]	-2	0	+4	[+5]	[-2]	[0]	+2	+6	+1	[+5]	[-3]	+1	+4	-2	[-3]	-1	8.0
Med sown (Oct)	-	-1	[-2]	-	-3	-1	+3	[+2]	-	-	[-2]	+3	0	-	[-3]	0	+2	-2	[0]	[-3]	9.3
Late sown (Nov)	-	-3	0	-	-1	-1	+1	[+3]	[-5]	[+3]	+2	+2	0	-	[-4]	-3	-1	-2	[0]	-1	5.3
Status in RL system																					
Year first listed	22	19	20	22	19	18	18	21	22	22	20	18	17	22	21	16	18	15	21	20	
RL status	P1	-	-	P1	*	-	-	P2	P1	P1	-	-	*	P1	P2	-	*	-	P2	-	

All yields in this table are taken from treated trials receiving a full fungicide and PGR programme.

UK = Recommended for the UK	Sp = Specific recommendation. RGT Wolverine has a specific recommendation for resistance to <i>Barley yellow dwarf virus</i> (BYDV). Resistance to BYDV has not been verified in Recommended List tests	□ = Latest safe-sowing date is the advised latest sowing time to give a sufficient cold period for flowering	DSV = DSV UK Ltd ( <a href="https://www.dsv-uk.co.uk">dsv-uk.co.uk</a> )	Sen = Senova ( <a href="https://www.senova.uk.com">senova.uk.com</a> )
E = Recommended for the East region		[ ] = Limited data	Els = Elsoms Seeds Ltd ( <a href="https://www.elsoms.com">elsoms.com</a> )	SyP = Syngenta Participations AG ( <a href="https://www.syngenta.co.uk">syngenta.co.uk</a> )
W = Recommended for the West region		[ [ ] ] = Very limited data	ElsW = Elsoms Wheat Ltd ( <a href="https://www.elsoms.com">elsoms.com</a> )	Syn = Syngenta UK Ltd ( <a href="https://www.syngenta.co.uk">syngenta.co.uk</a> )
N = Recommended for the North region		P1 = First year of recommendation	KWS = KWS UK ( <a href="https://www.kws-uk.com">kws-uk.com</a> )	LSD = Least significant difference
	C = Yield control (for current table)	P2 = Second year of recommendation	Lim = Limagrain UK ( <a href="https://www.lgseeds.co.uk">lgseeds.co.uk</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
	* = Variety no longer under test in RL trials	BA = Blackman Agriculture	LimEur = Limagrain Europe SA ( <a href="https://www.lgseeds.co.uk">lgseeds.co.uk</a> )	
	PGR = Plant growth regulator		R2n = RAGT, France ( <a href="https://www.ragt.co.uk">ragt.co.uk</a> )	
			RAGT = RAGT Seeds ( <a href="https://www.ragt.co.uk">ragt.co.uk</a> )	

# Spring wheat 2022



	KWS Ladum	Nissaba	Mulika	KWS Cochise	KWS Giraffe	KWS Chilham	KWS Fixum	WPB Escape	KWS Talisker	Hexham	KWS Kilburn	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	NEW	NEW	C	C			NEW			C	*	
<b>UK yield as % control (spring sowing)</b>												
Fungicide-treated (6.8 t/ha)	102	95	94	104	101	100	108	105	104	103	100	3.2
<b>UK yield as % control (autumn sowing)</b>												
Fungicide-treated (9.2 t/ha)	-	[97]	95	101	101	99	-	[103]	100	104	[102]	4.5
<b>Grain quality (spring sowing)</b>												
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	
Protein content (%)	13.2	13.5	13.6	13.2	13.5	12.9	12.7	12.7	12.5	12.8	13.1	0.3
Hagberg Falling Number	324	297	325	243	301	336	218	261	281	274	266	20.7
Specific weight (kg/hl)	78.0	76.4	77.0	78.5	79.2	78.2	77.8	76.2	78.7	77.3	75.3	0.7
<b>Agronomic features (spring sowing)</b>												
Resistance to lodging with PGR <sup>∞</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Straw height without PGR (cm)	75	77	78	77	75	74	79	72	80	77	79	1.9
Ripening (+/- Mulika, -ve = earlier)	0	+2	0	+1	+1	0	+2	+2	+1	+2	+2	1.2
Resistance to sprouting <sup>∞</sup>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Disease resistance</b>												
Mildew (1-9)	[8]	[5]	7	8	8	8	[8]	8	8	6	7	1.1
Yellow rust (1-9)	6	5	7	4	6	7	7	8	9	8	5	0.5
Brown rust (1-9)	[7]	[9]	[9]	[9]	[8]	[6]	[8]	[7]	[5]	[9]	[9]	1.8
Septoria tritici (1-9)	[7]	[6]	[6]	[6]	[5]	[7]	[6]	[6]	[6]	[7]	[6]	1.1
Orange wheat blossom midge	-	R	R	R	-	R	-	-	-	-	-	-
<b>Annual treated yield (% control, spring sowing)</b>												
2017 (7.4 t/ha)	-	-	92	106	[102]	101	-	-	[104]	[102]	101	4.0
2018 (5.5 t/ha)	-	-	[94]	[106]	[106]	[98]	-	[112]	[105]	[100]	[100]	6.1
2019 (7.0 t/ha)	103	92	93	105	100	96	108	104	103	103	98	4.1
2020 (6.4 t/ha)	[98]	[96]	[94]	[101]	[97]	[99]	[108]	[103]	[102]	[105]	[103]	4.2
2021 (7.6 t/ha)	103	96	96	100	102	103	106	[103]	105	105	99	4.0
<b>Breeder/UK contact</b>												
Breeder	KWS	BA	BA	KWS	KWS	KWS	KWS	WPB	KWS	KWS	KWS	
UK contact	KWS	BA	Sen	KWS	KWS	KWS	KWS	LSPB	KWS	Sen	KWS	
<b>Status in RL system</b>												
Year first listed	22	22	11	17	20	17	22	21	19	19	14	
RL status	P1	P1	-	-	-	-	P1	P2	-	-	*	

On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

UKFM = UK Flour Millers  
 UK = Recommended for the UK  
 C = Yield control (for the current table)  
 \* = Variety no longer under test in RL trials

PGR = Plant growth regulator  
<sup>∞</sup> = No ratings available  
 [] = Limited data

R = Believed to be resistant to orange wheat blossom midge (OWBM), but this has not been verified in Recommended List tests  
 P1 = First year of recommendation

P2 = Second year of recommendation  
 BA = Blackman Agriculture  
 KWS = KWS UK ([kws-uk.com](http://kws-uk.com))  
 LSPB = LS Plant Breeding ([lspb.eu](http://lspb.eu))  
 Sen = Senova ([senova.uk.com](http://senova.uk.com))

WPB = Wiersum Plant Breeding  
 LSD = Least significant difference  
 Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level



# Candidate varieties – wheat trials harvest 2022

## Winter wheat



Previous/proposed  
name

Variety ID

UK contact

### Selected as potential bread-making varieties

RGT Zinzan	RW41924	3011	RAGT Seeds
KWS Ultimatum	KWSW405	3026	KWS UK
KWS Wrenum	KWSW400	3033	KWS UK

### Selected as potential biscuit-making varieties

RGT Wilkinson	RW41991	3018	RAGT Seeds
Gefion	FAL160	3052	KWS UK

### Selected as potential feed varieties

EW8612	Zoom	3001	Elsoms Seeds Ltd
Oxford	DSV318214	3005	DSV UK
KWS Zealum	KWSW394	3027	KWS UK
KWS Webbum	KWSW399	3032	KWS UK
SY Coach	SY119122	3049	Syngenta UK Ltd
LG Redwald	LGWU172	3065	Limagrains UK
Mindful	AUK2001	3072	Agrovista UK Ltd

Candidate varieties will be considered for the 2023/24 AHDB Recommended List.

## Spring wheat



Previous/proposed  
name

Variety ID

UK contact

### Selected as potential bread-making varieties

Nimrod	NOS412013.06	3075	Saaten Union UK
KWSW406	KWS Harsum	3079	KWS UK
KWSW407	KWS Lightum	3080	KWS UK
KW241-3-17	KWS Alicium	3082	KWS UK

Candidate varieties will be considered for the 2023 AHDB Recommended List.

After a candidate variety achieves National Listing, 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))

# Malting barley

## MAGB – malting barley

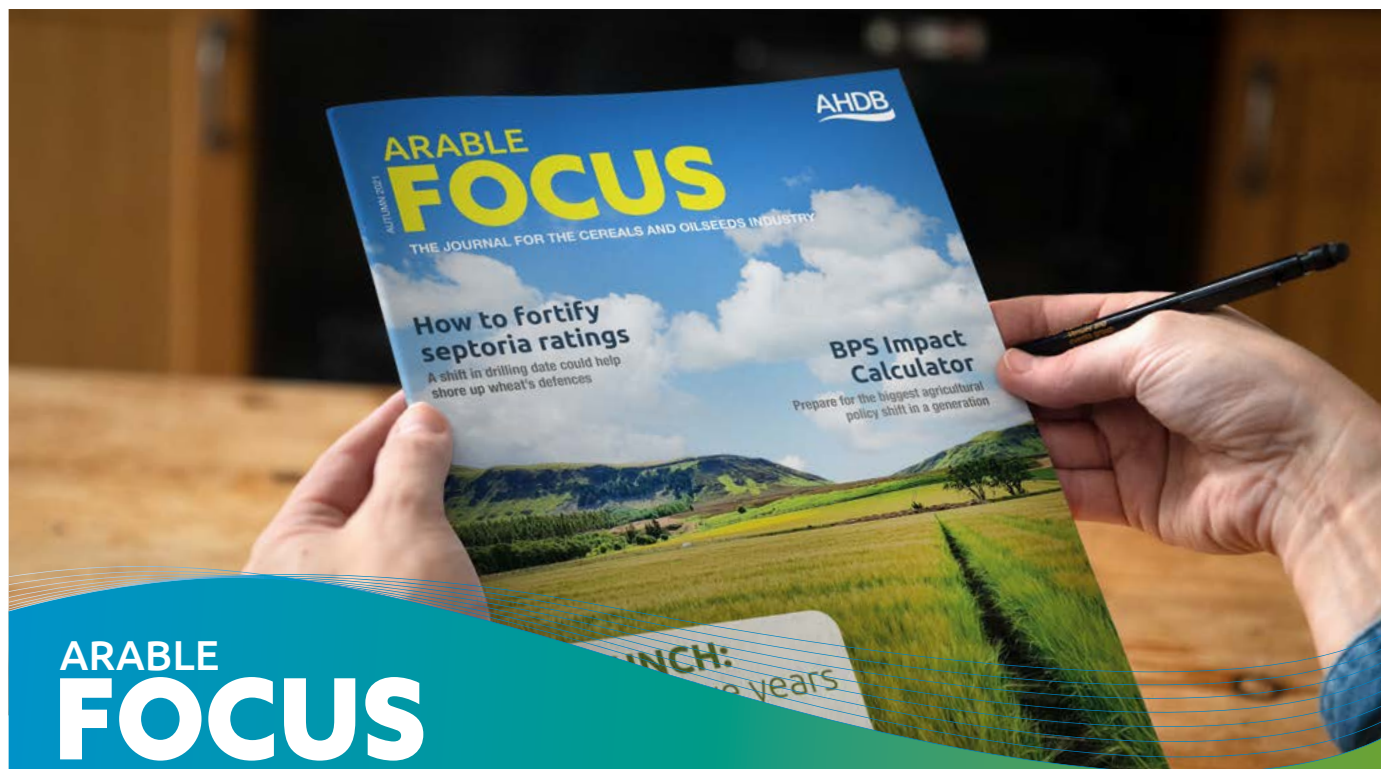
The malting barley committee of the Maltsters' Association of Great Britain (MAGB) tests and approves barley varieties for brewing, malting and distilling. There is a considerable UK market for approved varieties, with approximately 1.9 million tonnes of UK malting barley purchased each year.

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

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

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 approved varieties and information on growing malting barley.



## ARABLE FOCUS

Aimed at producers of cereals and oilseeds, this arable magazine covers a variety of AHDB-funded activities, designed to help your business succeed in a rapidly changing world

[ahdb.org.uk/arable-focus](http://ahdb.org.uk/arable-focus)



### MBC Approved List – Winter barley



#### Brewing use

Full approval: Craft, Electrum

#### Malt distilling use

None approved

#### Grain distilling use

None approved

### MBC Approved List – Spring barley



#### Brewing use

Full approval: Laureate, RGT Planet, LG Diablo

Provisional approval: SY Splendor, SY Tungsten, Skyway

#### Malt distilling use

Full approval: Laureate, KWS Sassy, LG Diablo

Provisional approval: SY Tungsten, Firefoxx

#### Grain distilling use


Full approval: Fairing

Provisional approval: None approved

# Winter barley 2022/23

## Market options, yield and grain quality



Market options, yield and grain quality																													
		Electrum	Craft	KWS Tardis	Bolton	Lightning	Bordeaux	LG Dazzle	LG Mountain	KWS Gimlet	Jordan	KWS Hawking	Surge	LG Flynn	KWS Orwell	KWS Creswell	Valerie	California	KWS Cassia	SY Thunderbolt #	SY Kingsbarn #	SY Canyon #	SY Kingston #	Belmont #	Belfry #	Bazooka #	KWS Feeris	Funky	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	N	UK	W	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK		
Variety status	C	C			NEW		NEW	C	*	*			*		*						NEW				C	NEW	C		
Fungicide-treated grain yield (% treated control)																													
United Kingdom (9.8 t/ha)	96	95	105	104	104	103	103	102	102	101	101	101	101	100	100	99	98	97	107	106	106	106	106	104	104	103	103	2.7	
East region (9.6 t/ha)	96	95	106	105	104	105	104	103	104	103	102	102	101	100	100	100	100	97	106	106	105	105	106	104	104	103	102	3.2	
West region (10.0 t/ha)	95	94	104	102	[103]	101	[101]	102	100	101	101	100	100	101	99	99	98	98	108	107	[108]	108	106	106	104	[105]	104	3.9	
North region (10.0 t/ha)	95	96	104	103	103	103	102	102	99	98	99	98	100	99	100	99	[96]	96	106	106	105	106	105	104	104	101	103	3.6	
Untreated grain yield (% treated control)																													
United Kingdom (9.8 t/ha)	78	78	85	84	88	81	87	82	82	86	81	87	81	80	75	82	79	81	87	84	89	88	76	87	84	84	88	5.0	
Main market options																													
MBC malting approval for brewing use	F	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Grain quality																													
Specific weight (kg/hl)	70.0	70.1	70.2	69.5	68.6	70.7	68.9	70.5	69.5	69.8	69.4	70.1	70.9	68.8	69.4	70.9	68.8	72.1	70.5	70.4	71.2	70.4	69.3	69.1	70.0	69.5	69.8	0.8	
Screenings (% through 2.25 mm)	2.0	2.0	1.4	1.3	1.9	0.9	1.8	1.9	2.0	1.3	1.8	1.5	1.3	1.6	1.8	0.4	1.8	1.2	1.8	1.4	1.8	2.5	2.4	2.4	2.2	0.7	3.4	0.7	
Screenings (% through 2.5 mm)	5.9	6.2	4.3	4.2	5.6	2.7	5.4	6.0	5.9	3.7	5.6	4.7	3.7	4.9	5.8	1.0	5.9	3.5	7.2	5.7	6.4	8.6	8.8	9.1	7.7	3.7	13.2	1.8	
Nitrogen content (%)	1.73	1.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.75	-	0.20	
Status in RL system																													
Year first listed	18	16	21	21	22	21	22	19	19	20	20	16	19	16	17	19	13	10	21	19	22	21	18	16	16	22	17		

**Varieties no longer listed:** KWS Tower, Libra and SY Baracooda.

Comparisons of variety performance across regions are not valid. See page 3 for information on regional yields.

UK = Recommended for the UK	Sp = Specific recommendation. KWS Feeris has a specific recommendation for tolerance to <i>Barley yellow dwarf virus</i> (BYDV). Tolerance to BYDV has not been verified in Recommended List tests	C = Yield control (for current table)	MBC = Malting Barley Committee	LSD = Least significant difference
N = Recommended for the North region		* = Variety no longer under test	[ ] = Limited data	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W = Recommended for the West region		# = Hybrid variety	F = Full MBC approval	



# Winter barley 2022/23

## Yield, agronomy and disease resistance



	Electrum	Craft	KWS Tardis	Bolton	Lightning	Bordeaux	LG Dazzle	LG Mountain	KWS Gimlet	Jordan	KWS Hawking	Surge	LG Flynn	KWS Orwell	KWS Creswell	Valerie	California	KWS Cassia	SY Thunderbolt #	SY Kingsbarn #	SY Canyon #	SY Kingston #	Belmont #	Belfry #	Bazooka #	KWS Feeris	Funky	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	N	UK	W	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK	
Variety status	C	C			NEW		NEW	C	*	*			*		*					NEW					C	NEW	C	
Fungicide-treated grain yield (% treated control)																												
United Kingdom (9.8 t/ha)	96	95	105	104	104	103	103	102	102	101	101	101	101	100	100	99	98	97	107	106	106	106	106	104	104	103	103	2.7
East region (9.6 t/ha)	96	95	106	105	104	105	104	103	104	103	102	102	101	100	100	100	100	97	106	106	105	105	106	104	104	103	102	3.2
West region (10.0 t/ha)	95	94	104	102	[103]	101	[101]	102	100	101	101	100	100	101	99	99	98	98	108	107	[108]	108	106	106	104	[105]	104	3.9
North region (10.0 t/ha)	95	96	104	103	103	103	102	102	99	98	99	98	100	99	100	99	[96]	96	106	106	105	106	105	104	104	101	103	3.6
Untreated grain yield (% treated control)																												
United Kingdom (9.8 t/ha)	78	78	85	84	88	81	87	82	82	86	81	87	81	80	75	82	79	81	87	84	89	88	76	87	84	84	88	5.0
Agronomic features																												
Resistance to lodging without PGR (1–9) – see page 4	7	7	8	7	[6]	7	[7]	6	6	6	7	7	7	7	7	7	7	7	5	6	[7]	6	6	7	6	[8]	8	1.4
Resistance to lodging with PGR(1–9) – see page 4	7	8	8	8	6	8	7	6	6	6	8	7	7	8	7	8	7	7	5	7	5	5	6	7	6	7	7	1.0
Straw height without PGR (cm)	97	97	95	95	[92]	94	[92]	92	102	92	94	93	98	93	96	94	96	96	114	112	[118]	118	112	110	117	[102]	97	3.9
Straw height with PGR (cm)	90	88	86	83	88	85	85	83	95	84	85	85	91	85	88	86	90	89	104	103	106	107	105	101	107	95	91	2.7
Ripening (+/-KWS Orwell, -ve = earlier)	-1	0	0	0	0	0	0	-1	+1	+1	+1	0	+1	0	0	-1	0	+1	-1	0	-1	-1	0	0	0	0	-1	1.1
Disease resistance																												
Mildew (1–9)	6	6	5	6	7	6	6	5	7	6	5	6	5	3	4	6	6	5	8	7	8	7	5	6	5	4	5	1.2
Brown rust (1–9)	7	7	6	6	8	6	8	7	6	8	6	7	7	7	6	5	5	7	6	5	6	6	4	6	5	5	7	1.0
Rhynchosporium (1–9)	6	6	7	5	6	4	7	6	6	7	6	7	5	6	6	6	6	5	6	5	6	6	7	7	6	6	6	1.4
Net blotch (1–9)	5	6	[5]	[5]	[5]	[5]	[4]	5	5	5	6	5	5	5	5	[6]	6	5	[6]	5	[5]	6	5	5	5	[6]	5	1.2
BaYMV	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	-

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

Comparisons of variety performance across regions are not valid. See page 3 for information on regional yields.

Resistance to lodging (without PGR) ratings for new varieties are based on a small number of trials so should be treated with caution.

UK = Recommended for the UK  
N = Recommended for the North region  
W = Recommended for the West region

Sp = Specific recommendation. KWS Feeris has a specific recommendation for tolerance to *Barley yellow dwarf virus* (BYDV). Tolerance to BYDV has not been verified in Recommended List tests  
C = Yield control (for current table)

\* = Variety no longer under test in RL trials  
# = Hybrid variety  
PGR = Plant growth regulator  
[] = Limited data

R = Believed to be resistant to Barley mild mosaic virus (BaMMV) and to *Barley yellow mosaic virus* (BaYMV) strain 1, but this has not been verified in Recommended List tests

LSD = Least significant difference  
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

# Winter barley 2022/23

## Supplementary data



Supplementary data

AHDB

RECOMMENDED

Electrum

Craft

KWS Tardis

Bolton

Lightning

Bordeaux

LG Dazzle

LG Mountain

KWS Gimlet

Jordan

KWS Hawking

Surge

LG Flynn

KWS Orwell

KWS Creswell

Valerie

California

KWS Cassia

SY Thunderbolt #

SY Kingsbarn #

SY Canyon #

SY Kingston #

Belmont #

Belfry #

Bazooka #

KWS Fearis

Funky

Average LSD (5%)

End-use group

Scope of recommendation

Variety status

Breeder/UK contact

Breeder

UK contact

Annual treated yield (% control)

2017 (10.0 t/ha)

2018 (10.3 t/ha)

2019 (10.4 t/ha)

2020 (9.2 t/ha)

2021 (9.5 t/ha)

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

Light soils (9.5 t/ha)

Heavy soils (9.5 t/ha)

Agronomic characteristics

Lodging without PGR (%)

Lodging with PGR (%)

Brackling (%)

Malting quality

Hot water extract (l deg/kg)

Status in RL system

Year first listed

RL status

Two-row malting

Two-row feed

Six-row feed

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

N

UK

W

UK

UK

UK

UK

UK

UK

UK

UK

Sp

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK

UK</

All yields on this table are taken from treated trials receiving a full fungicide and PGR programme.

UK = Recommended for the UK	C = Yield control (for current table)	Ack = Ackermann Saatzzucht GmbH (sz-ackermann.de)	NS = Nordic Seed, Denmark	LSD = Least significant difference
N = Recommended for the North region	* = Variety no longer under test in RL trials	Bre = Saatzzucht Josef Breun, Germany (breun.de)	Sen = Senova (senova.uk.com)	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W = Recommended for the West region	# = Hybrid variety	ElsAck = Elsoms Ackermann Barley (elsoms.com)	Syn = Syngenta UK Ltd (syngenta.co.uk)	
Sp = Specific recommendation. KWS Fearis has a specific recommendation for tolerance to Barley yellow dwarf virus (BYDV). Tolerance to BYDV has not been verified in Recommended List tests	PGR = Plant growth regulator	KWS = KWS UK (kws-uk.com)	SyP = Syngenta Participations AG (syngenta.co.uk)	
	[ ] = Limited data	KWSMR = KWS Momont Recherche (kws-uk.com)		
	P1 = First year of recommendation	Lim = Limagrain UK (lgseeds.co.uk)		
	P2 = Second year of recommendation	LimEur = Limagrain Europe SA (lgseeds.co.uk)		

# Spring barley 2022

## Market options, yield and grain quality



	Jensen	Skyway	Firefoxx	SY Bronte	Spinner	SY Tungsten	LG Diablo	Laureate	SY Splendor	RGT Planet	KWS Sassy	Fairing	Fairway	Malvern	Cadiz	Prospect	CB Score ~	Described variety	Average LSD (5%)
End-use group	Malting varieties												Feed varieties						
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK	W	E&W	UK	UK Null-Lox		
Variety status	NEW			NEW	NEW		C	C		C			*	NEW			NEW		
<b>Fungicide-treated grain yield (% treated control)</b>																			
United Kingdom (7.4 t/ha)	105	105	103	103	103	103	102	102	102	99	97	93	104	103	103	103	101		2.2
East region (7.3 t/ha)	106	106	103	104	103	101	103	102	102	99	95	92	104	103	105	105	100		3.3
West region (7.1 t/ha)	[106]	106	103	[105]	[106]	103	101	103	102	99	98	94	103	[106]	106	102	[100]		3.5
North region (7.8 t/ha)	104	103	104	102	101	104	102	102	102	99	98	92	104	102	100	101	101		2.7
<b>Main market options</b>																			
MBC malting approval for brewing use	T	P	-	T	T	P	F	F	P	F	N	-	-	-	-	-	-		-
MBC malting approval for malt distilling use	-	-	P	-	-	P	F	F	-	N	F	-	-	-	-	-	-		-
MBC malting approval for grain distilling use	-	-	-	-	-	-	-	-	-	N	-	F	-	-	-	-	-		-
<b>Grain quality</b>																			
Specific weight (kg/hl)	65.9	68.7	66.4	66.8	67.5	67.7	67.1	66.6	68.1	68.0	68.6	68.1	65.6	66.4	67.6	67.9	67.1		0.6
Screenings (% through 2.25 mm)	1.4	1.0	1.4	1.3	1.2	1.7	1.4	1.3	1.4	1.2	1.0	1.0	1.2	1.3	0.8	1.8	1.3		0.3
Screenings (% through 2.5 mm)	3.4	2.6	3.7	3.0	2.9	4.5	3.3	3.1	3.6	3.1	2.4	2.6	3.1	3.8	1.8	4.2	3.3		0.7
Nitrogen content (%)	1.50	1.57	1.54	1.54	1.54	1.50	1.52	1.54	1.55	1.56	-	-	-	[1.55]	1.60	1.59	[1.57]		0.09
<b>Status in RL system</b>																			
Year first listed	22	21	20	22	22	20	18	16	20	15	16	16	20	22	21	20	22		

**Varieties no longer listed:** Cosmopolitan, Iconic, Propino and Sienna.

**Null-Lox spring barley varieties are described. Data are provided for information only and do not constitute a recommendation.**

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

Comparisons of variety performance across regions are not valid. See page 3 for information on regional yields.

All yields on this table are taken from treated trials receiving a full fungicide programme.

UK = Recommended for the UK	C = Yield control. For this table, Cosmopolitan and Propino were also control varieties but are no longer listed	~ = Variety lacking a gene for lipogenase production (a Null-Lox variety)	F = Full MBC approval in this segment	LSD = Least significant difference
E = Recommended for the East region		MBC = Malting Barley Committee	N = Not approved by MBC in this segment	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W = Recommended for the West region	* = Variety no longer under test in RL trials	[ ] = Limited data	P = Provisional MBC approval in this segment	
Sp = Specific recommendation. Fairing is suitable for the production of malt for grain distilling			T = Under test for MBC approval in this segment	



# Spring barley 2022

## Yield, agronomy and disease resistance



	Jensen	Skyway	Firefoxx	SY Bronte	Spinner	SY Tungsten	LG Diablo	Laureate	SY Splendor	RGT Planet	KWS Sassy	Fairing	Fairway	Malvern	Cadiz	Prospect	CB Score ~	Average LSD (5%)
End-use group	Malting varieties												Feed varieties					
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK	W	E&W	UK	UK Null-Lox	
Variety status	NEW			NEW	NEW		C	C		C			*	NEW			NEW	
<b>Fungicide-treated grain yield (% treated control)</b>																		
United Kingdom (7.4 t/ha)	105	105	103	103	103	103	102	102	102	99	97	93	104	103	103	103	101	2.2
East region (7.3 t/ha)	106	106	103	104	103	101	103	102	102	99	95	92	104	103	105	105	100	3.3
West region (7.1 t/ha)	[106]	106	103	[105]	[106]	103	101	103	102	99	98	94	103	[106]	106	102	[100]	3.5
North region (7.8 t/ha)	104	103	104	102	101	104	102	102	102	99	98	92	104	102	100	101	101	2.7
<b>Untreated grain yield (% treated control)</b>																		
United Kingdom (7.4 t/ha)	96	94	92	92	96	90	92	94	90	90	89	84	91	95	92	93	92	2.9
<b>Agronomic features</b>																		
Resistance to lodging without PGR (1–9) – see page 4	6	7	7	7	7	7	7	6	7	7	6	8	7	8	7	7	7	0.8
Straw height without PGR (cm)	66	74	69	73	70	71	71	69	72	72	77	70	70	71	74	69	70	1.5
Ripening (+/- RGT Planet, -ve = earlier)	+1	0	0	+1	+1	+1	+2	+1	+1	0	+1	-2	-1	0	+1	+1	+1	0.9
Resistance to brackling (1–9)	8	8	8	8	8	8	8	8	9	8	6	8	8	8	8	9	8	0.9
<b>Disease resistance</b>																		
Mildew (1–9)	8	9	9	9	9	8	9	9	9	8	9	8	9	9	9	9	9	0.5
Brown rust (1–9)	5	4	4	4	5	4	5	5	3	5	5	4	3	5	5	4	5	1.2
Rhynchosporium (1–9)	[6]	[4]	5	[5]	[4]	3	5	5	[4]	5	6	8	[3]	[1]	[2]	[6]	[5]	2.8

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Comparisons of variety performance across regions are not valid. See page 3 for information on regional yields.

UK = Recommended for the UK	Sp = Specific recommendation. Fairing is suitable for the production of malt for grain distilling	* = Variety no longer under test in RL trials	PGR = Plant growth regulator	LSD = Least significant difference
E = Recommended for the East region	C = Yield control. For this table, Cosmopolitan and Propino were also control varieties but are no longer listed	~ = Variety lacking a gene for lipogenase production (a Null-Lox variety)	[ ] = Limited data	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
W = Recommended for the West region				

# Spring barley 2022

## Supplementary data



	Jensen	Skyway	Firefoxx	SY Bronte	Spinner	SY Tungsten	LG Diablo	Laureate	SY Splendor	RGT Planet	KWS Sassy	Fairing	Fairway	Malvern	Cadiz	Prospect	Described variety	Average LSD (5%)
End-use group	Malting varieties												Feed varieties					
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK	W	E&W	UK	UK Null-Lox	
Variety status	NEW			NEW	NEW		C	C		C			*	NEW			NEW	
<b>Breeder/UK contact</b>																		
Breeder	Sej	NS	Ack	SyP	Sec	SyP	LimEur	SyP	SyP	RAGT	KWS	SyP	NS	NS	NS	Sej	Cal	
UK contact	Lim	Agr	ElsAck	Syn	Agr	Syn	Lim	Syn	Syn	RAGT	KWS	Syn	Sen	AgV	Sen	Sen	ADM	
<b>Annual treated yield (% control)</b>																		
2017 (7.4 t/ha)	-	-	103	-	-	102	103	100	103	100	97	92	103	-	-	103	-	-
2018 (6.8 t/ha)	-	105	104	-	-	104	102	102	103	98	97	94	104	-	104	102	-	-
2019 (7.8 t/ha)	105	105	103	104	104	102	102	102	104	100	98	93	104	103	104	104	100	-
2020 (7.5 t/ha)	104	105	102	103	102	103	102	102	102	99	97	91	103	103	102	102	100	-
2021 (7.6 t/ha)	107	104	106	103	104	103	102	104	99	97	96	93	106	104	104	103	101	-
<b>Malting quality</b>																		
Hot water extract (l deg/kg)	314.0	314.1	313.4	314.8	313.2	314.4	314.1	313.8	313.6	313.3	-	[306.3]	[312.5]	308.0	312.5	312.3	312.1	2.3
<b>Status in RL system</b>																		
Year first listed	22	21	20	22	22	20	18	16	20	15	16	16	20	22	21	20	22	
RL status	P1	P2	-	P1	P1	-	-	-	-	-	-	-	*	P1	P2	-	P1	

All yields on this table are taken from treated trials receiving a full fungicide programme.

UK = Recommended for the UK	~ = Variety lacking a gene for lipogenase production (a Null-Lox variety)	Cal = Carlsberg Research Laboratory	Sen = Senova ( <a href="http://senova.uk.com">senova.uk.com</a> )
E = Recommended for the East region	[ ] = Limited data	ElsAck = Elsoms Ackermann Barley	Syn = Syngenta UK Ltd ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )
W = Recommended for the West region	P1 = First year of recommendation	KWS = KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	SyP = Syngenta Participations AG ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )
Sp = Specific recommendation. Fairing is suitable for the production of malt for grain distilling	P2 = Second year of recommendation	Lim = Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )	LSD = Least significant difference
C = Yield control. For this table, Cosmopolitan and Propino were also control varieties but are no longer listed	Ack = Ackermann Saatzzucht GmbH ( <a href="http://sz-ackermann.de">sz-ackermann.de</a> )	LimEur = Limagrain Europe SA ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
* = Variety no longer under test in RL trials	ADM = ADM Agriculture Ltd ( <a href="http://adm-agri.co.uk">adm-agri.co.uk</a> )	NS = Nordic Seed, Denmark	
	Agr = Agrii ( <a href="http://agrii.co.uk">agrii.co.uk</a> )	RAGT = RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )	
	AgV = Agrovista UK Ltd ( <a href="http://agrovista.co.uk">agrovista.co.uk</a> )	Sec = Secobra, France ( <a href="http://secobra.com">secobra.com</a> )	
		Sej = Sejet, Denmark ( <a href="http://sejet.com">sejet.com</a> )	

# Candidate varieties – barley trials harvest 2022

## Winter barley



	Previous/proposed name	Variety ID	UK contact
Selected as potential malting varieties			
Buccaneer	SJ172271	3321	Saaten Union UK
Selected as potential feed varieties			
SY Nephin	SY218651	3299	Syngenta UK Ltd
LG Caravelle	LGBU18-6531	3305	Limagrains UK
LG Campus	LGBU16-6042-B	3306	Limagrains UK
NOS915.045-51	-	3327	Agrii

Candidate varieties will be considered for the 2023/24 AHDB Recommended List.

After a candidate variety achieves National Listing, 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))

## Spring barley



	Previous/proposed name	Variety ID	UK contact
Selected as potential malting varieties			
SC53421W	Sun King	3340	Agrii
SC58707W	Diviner	3342	Agrii
RGT Starlight	RP19013	3345	RAGT Seeds
LG Flamenco	LGBN16509-4	3352	Limagrains UK
BR13773AZ3	Florence	3353	Senova
KWS Curtis	KWS192073	3356	KWS UK
KW419531	Maronis	3360	KWS UK
NOS114.171-07	-	3363	Agrovista UK Ltd
LG Mulgrave	LGBU18-1560-A	3371	Limagrains UK
LG Loxstar	LGBU18-1301-A	3372	Limagrains UK
SY Signet	SY419542	3376	Syngenta UK Ltd
SY Tennyson	SY419544	3377	Syngenta UK Ltd
SY Jewel	SY419554	3378	Syngenta UK Ltd

Selected as potential feed varieties			
SC57357W	Hurler	3341	Agrii

Candidate varieties will be considered for the 2023 AHDB Recommended List.



# Winter oats 2022/23



	RGT Southwark	Dalguise	RGT Lineout	Mascani	Gerald	Peloton	Fusion #	Grafton	Average LSD (5%)
Variety type	Husked varieties					Naked varieties			
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	
Variety status	C	C	*	C					
<b>UK yield (% treated control)</b>									
Fungicide-treated (8.8 t/ha)	104	100	100	97	95	77	73	72	3.2
<b>Grain quality</b>									
Kernel content (%)	72.9	73.0	73.1	76.4	70.5	-	-	-	1.3
Specific weight (kg/hl)	53.6	54.2	52.2	53.3	52.4	61.6	60.2	62.9	1.1
Screenings (% through 2.0 mm)	5.5	3.5	6.2	1.7	4.7	-	-	-	1.4
Screenings (% through 1.8 mm)	-	-	-	-	-	19.0	27.7	11.1	4.0
<b>Agonomic features</b>									
Resistance to lodging without PGR (1–9) – <b>see page 4</b>	5	4	6	6	6	7	9	7	1.3
Straw length without PGR (cm)	125	124	118	122	121	118	80	124	4.0
Ripening (days +/- Mascani, -ve = earlier)	-1	-1	-1	0	+1	+1	+3	-1	1.1
<b>Disease resistance</b>									
Mildew (1–9)	4	4	3	6	4	7	4	4	1.0
Crown rust (1–9)	8	4	5	5	4	6	3	4	0.8
<b>Treated yields with and without PGR (% treated control)</b>									
With PGR (8.8 t/ha)	103	100	100	96	96	76	72	72	3.3
Without PGR (8.7 t/ha)	104	100	99	97	96	78	75	73	4.7
<b>Annual treated yield (% control)</b>									
2017 (8.0 t/ha)	102	98	100	100	93	78	69	69	5.6
2018 (9.3 t/ha)	101	102	100	97	99	76	76	74	3.7
2019 (9.3 t/ha)	105	99	100	96	98	78	76	77	6.8
2020 (8.3 t/ha)	105	101	99	95	94	75	73	70	5.1
2021 (9.1 t/ha)	105	100	101	95	93	75	70	69	5.2
<b>Breeder/UK contact</b>									
Breeder	R2n	Sen	R2n	IBERS	IBERS	IBERS	IBERS	IBERS	
UK contact	RAGT	Sen	RAGT	Sen	Sen	Sen	Sen	Sen	
<b>Status in RL system</b>									
Year first listed	18	03	16	04	93	17	10	00	
RL status	-	-	*	-	-	-	-	-	

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. disease resistance).

C = Yield control (for current table)	PGR = Plant growth regulator	IBERS = Institute of Biological, Environ. & Rural Sciences ( <a href="http://aber.ac.uk">aber.ac.uk</a> )	RAGT = RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )	LSD = Least significant difference
* = Variety no longer under test in RL trials	[ ] = Limited data	R2n = RAGT, France ( <a href="http://ragt.co.uk">ragt.co.uk</a> )	Sen = Senova ( <a href="http://senova.uk.com">senova.uk.com</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
# = Dwarf variety				

# Spring oats 2022



											Described varieties			Average LSD (5%)
	Delfin	Merlin	WPB Isabel	Yukon	Canyon	Aspen	Conway	Lion	WPB Elyann	Oliver	Lennon	Kamil		
Variety type	Husked varieties									Naked varieties				
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK		
Variety status		NEW			C	C		NEW	C		NEW			
UK yield (% treated control)														
Fungicide-treated (6.8 t/ha)	106	105	105	104	103	100	99	99	98	75	71	68	5.5	
Untreated (% of treated control)	102	99	90	100	97	87	90	85	88	64	64	61	6.3	
Grain quality														
Kernel content (%)	72.3	72.6	74.4	72.6	72.7	73.1	73.0	76.2	76.1	-	-	-	1.7	
Specific weight (kg/hl)	50.6	51.1	53.6	49.6	51.3	51.2	50.0	52.1	50.4	61.6	[61.5]	63.5	1.2	
Screenings (% through 2.0 mm)	2.7	1.6	1.9	2.9	2.4	2.1	1.9	1.9	2.6	-	-	-	1.0	
Screenings (% through 1.8 mm)	-	-	-	-	-	-	-	-	-	7.5	[11.3]	4.8	2.7	
Agronomic features														
Resistance to lodging without PGR (1–9) – see page 4	7	[7]	7	7	7	6	7	[7]	6	7	[7]	7	0.6	
Straw length without PGR (cm)	111	[105]	108	105	109	98	104	[104]	99	103	[97]	106	2.5	
Ripening (days +/- WPB Isabel, -ve = earlier)	0	-1	0	0	-1	0	-1	-1	-1	0	0	0	1.2	
Disease resistance														
Mildew (1–9)	8	8	5	8	8	4	5	3	4	3	5	4	0.7	
Crown rust (1–9)	4	[3]	5	5	4	5	4	[5]	5	4	[5]	4	0.9	
Annual treated yield (% control)														
2017 (7.2 t/ha)	[112]	-	[111]	[106]	[103]	[101]	[98]	-	[96]	[77]	-	[62]	6.7	
2018 (6.0 t/ha)	[106]	[104]	[101]	[100]	[96]	[102]	[96]	[101]	[102]	[70]	[76]	[65]	8.3	
2019 (7.1 t/ha)	[104]	[110]	[105]	[105]	[105]	[100]	[98]	[101]	[95]	[78]	[67]	[69]	11.3	
2020 (6.1 t/ha)	[106]	[101]	[103]	[105]	[104]	[96]	[102]	[95]	[100]	[76]	[76]	[65]	8.1	
2021 (7.7 t/ha)	[105]	[105]	[104]	[102]	[104]	[99]	[102]	[99]	[97]	[74]	[67]	[75]	4.5	
Breeder/UK contact														
Breeder	Nord	Selg	Wier	Nord	Nord	Bau	IBERS	Nord	Wier	Selg	IBERS	Selg		
UK contact	SU	Cope	KWS	SU	SU	Sen	Sen	SU	KWS	Cope	Sen	Cope		
Status in RL system														
Year first listed	18	22	20	17	11	15	14	22	17	18	22	18		
RL status	-	P1	-	-	-	-	-	P1	-	-	P1	-		

Varieties no longer listed: Elison, Firth and Madison.

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

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

C = Yield control (for current table)  
 \* = Variety no longer under test in RL trials  
 PGR = Plant growth regulator  
 [] = Limited data

P1 = First year of recommendation  
 Bau = Bauer, Germany  
 Cope = Cope Seeds & Grain  
 (copeseeds.co.uk)

IBERS = Institute of Biological,  
 Environ. & Rural  
 Sciences (aber.ac.uk)  
 KWS = KWS UK (kws-uk.com)  
 Nord = Nordsaat, Germany (nordsaat.de)

Selg = Selgen, Czech Republic  
 Sen = Senova (senova.uk.com)  
 SU = Saaten Union UK (saaten-union.co.uk)  
 Wier = Wiersum BV, Netherlands

LSD = Least significant difference  
 Average LSD (5%): Varieties that are more  
 than one LSD apart are significantly different  
 at the 95% confidence level

# Candidate varieties – oat trials harvest 2022

## Winter oats



Previous/proposed  
name

Variety ID

UK contact

### Husked varieties

Cromwell	10-108ACN15/2	423	Senova
RGT Silver	RVR10017A	426	RAGT Seeds

Candidate varieties will be considered for the 2023/24 AHDB Recommended List.

## Spring oats



Previous/proposed  
name

Variety ID

UK contact

### Husked varieties

RGT Vaughan	RVT16498	445	RAGT Seeds
-------------	----------	-----	------------

Candidate varieties will be considered for the 2023 AHDB Recommended List.

After a candidate variety achieves National Listing, 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))

## AGRONOMY FOCUS

Agronomy Focus is a technical e-newsletter issued by AHDB Cereals & Oilseeds

Sign up for monthly information on agronomy publications, applied research findings and events

[ahdb.org.uk/agronomy-focus](https://ahdb.org.uk/agronomy-focus)



Photograph © Gary Naylor Photography



# Winter oilseed rape 2022/23 – regional rankings (East/West and North)

Ranked according to gross output for each region Note: varieties are tested in UK trials but some may only achieve recommendation for one region



	East/West region			
	Scope of recommendation	Gross output (%C) (5.0 t/ha)	Seed yield (%C) (4.6 t/ha)	
PT303	NEW	UK	108	107
LG Auckland	NEW	UK	108	108
LG Adonis	NEW	E/W	108	106
Ambassador		UK	106	106
Dart	NEW	E/W	106	106
LG Aviron		UK	105	107
Aurelia		UK	105	105
Tennyson	NEW	E/W	104	105
Artemis	*	UK	104	104
LG Antigua		E/W	104	104
Respect		E/W	104	105
Flemming	NEW	E/W	104	105
Acacia		UK	104	104
Annika	NEW	UK	103	103
DK Expectation		E/W	102	102
Crocodile #		E/W Sp	101	102
Aspire	C	UK	100	100
Aardvark	*	UK	100	101
Darling	*	E/W	100	99
Matrix CL &	NEW	UK Sp	100	99
Crome #		UK Sp	99	98
Crossfit #	NEW	E/W Sp	99	98
Dazzler	*	E/W	99	98
LG Constructor CL &	NEW	UK Sp	97	98
V 316 OL ~	*	UK Sp	96	96
Croozar #	*	E/W Sp	96	98
PT279CL &		E/W Sp	94	95
DK Imprint CL &		UK Sp	92	95
Nizza CL &	*	E/W Sp	91	92
Average LSD (5%)		5.5	5.0	

	North region			
	Scope of recommendation	Gross output (%C) (5.8 t/ha)	Seed yield (%C) (5.3 t/ha)	
Aurelia		UK	105	106
Amarone	NEW	N	105	105
LG Aviron		UK	104	106
PT303	NEW	UK	104	104
LG Auckland	NEW	UK	[104]	[104]
Ambassador		UK	104	105
Acacia		UK	104	104
Annika	NEW	UK	[102]	[103]
Aardvark	*	UK	102	101
Artemis	*	UK	102	102
Crome #		UK Sp	101	100
Blazen	*	N	101	103
Aspire	C	UK	100	100
V 316 OL ~	*	UK Sp	97	97
Matrix CL &	NEW	UK Sp	96	96
LG Constructor CL &	NEW	UK Sp	[94]	[95]
DK Imprint CL &		UK Sp	91	94
Average LSD (5%)		5.5	5.3	

Dark blue: UK recommendation (recommended for both the East/West and North regions)  
Light blue: Regional recommendation (recommended for the East/West or North region)

This table should be read in conjunction with the AHDB Recommended List of winter oilseed rape varieties for 2022/23.

UK = Recommended for both the East/West and North regions	Sp = Specific recommendation	& = Herbicide-tolerant variety. This variety has a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)	* = Variety no longer under test in RL trials in region
E/W = Recommended for the East/West region	# = Specific recommendation for growing on land infected with common strains of clubroot. Believed to be resistant to common strains of clubroot, but this has not been verified in Recommended List tests. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce the risk of resistance breakdown	~ = HOLL (High Oleic, Low Linolenic) variety	LSD = Least significant difference
N = Recommended for the North region		C = Yield control. For this table, Campus, DK Expansion, Elgar and Temptation were also control varieties but are no longer listed	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

# Winter oilseed rape 2022/23

## Yield, agronomy and disease resistance



	Recommended for the UK (both East/West and North regions)														Recommended for use on clubroot-infected land only				Average LSD (5%)
	PT303	LG Auckland	Ambassador	LG Aviron	Aurelia	Artemis	Acacia	Annika	Aardvark	Aspire	Matrix CL &	LG Constructor CL <sup>a</sup>	V 316 OL ~	DK Imprint CL &	Crome #	Croozar #	Crossfit #	Crocodile #	
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv	Conv	Conv	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK Sp	UK Sp	UK Sp	UK Sp	UK Sp	E/W Sp	E/W Sp	E/W Sp	
Variety status	NEW	NEW				*		NEW	*	C	NEW	NEW	*			*	NEW		
<b>Gross output, yield adjusted for oil content (% treated control)</b>																			
United Kingdom (5.1 t/ha)	107	107	106	105	105	104	104	103	100	100	99	96	96	92	99	96	98	100	4.9
East/West region (5.0 t/ha)	108	108	106	105	105	104	104	103	100	100	100	97	96	92	99	96	99	101	5.5
North region (5.8 t/ha)	104	[104]	104	104	105	102	104	[102]	102	100	96	[94]	97	91	101	97	[92]	96	5.5
<b>Seed yield (% treated control)</b>																			
United Kingdom (4.7 t/ha)	106	107	106	107	105	104	104	103	101	100	99	98	96	94	99	98	97	101	4.5
East/West region (4.6 t/ha)	107	108	106	107	105	104	104	103	101	100	99	98	96	95	98	98	98	102	5.0
North region (5.3 t/ha)	104	[104]	105	106	106	102	104	[103]	101	100	96	[95]	97	94	100	98	[91]	97	5.3
<b>Untreated gross output, yield adjusted for oil content (% untreated control) <sup>□</sup></b>																			
United Kingdom (5.1 t/ha)	-	-	107	110	106	103	104	-	104	101	-	-	98	94	100	93	-	98	8.3
<b>Untreated seed yield (% untreated control) <sup>□</sup></b>																			
United Kingdom (4.8 t/ha)	-	-	107	111	107	103	104	-	104	101	-	-	98	96	98	94	-	99	7.9
<b>Agronomic features</b>																			
Resistance to lodging (1–9)	[8]	[8]	8	[7]	8	8	8	[8]	8	8	[8]	[8]	8	[8]	8	8	[8]	8	0.3
Stem stiffness (1–9)	8	7	8	7	8	8	9	8	8	9	8	8	8	7	8	8	7	7	0.7
Shortness of stem (1–9)	5	6	6	6	6	6	7	6	6	7	5	6	6	6	6	7	6	6	0.3
Plant height (cm)	164	155	154	156	150	157	145	149	149	140	159	148	152	158	148	146	148	148	3.5
Earliness of flowering (1–9)	5	7	7	8	7	6	6	6	7	7	6	6	6	5	7	8	7	6	0.4
Earliness of maturity (1–9)	5	6	6	6	5	6	5	4	5	4	6	6	5	5	5	6	6	6	0.4
Pod shatter resistance	-	R	R	R	R	R	-	-	-	-	R	R	-	R	-	-	R	-	
<b>Disease resistance</b>																			
Light leaf spot (1–9)	7	7	7	8	7	6	6	7	7	7	6	6	6	6	6	6	5	6	0.6
Stem canker (1–9)	7	7	7	7	7	7	5	6	6	5	8	6	5	8	4	8	9	4	0.9
TuYV	R	R	R	R	R	R	-	R	-	R	R	R	-	-	-	-	R	-	

**Varieties no longer listed in the UK (both East/West and North regions):** Ballad, DK Expansion and Temptation. On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). The target (spring) plant population is 40 plants/m<sup>2</sup> for RL trials. Maximum seed rate is 70 seeds/m<sup>2</sup> and may be lower if conditions permit. Glucosinolate contents are taken from the National List trials data. Yield figures for regions where the variety is not recommended are provided for information only and are indicated in *italics*.

UK	= Recommended for both the East/West and North regions	&	= Herbicide-tolerant variety. This variety has a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)	□	= Untreated trials are treated for sclerotinia at flowering	LSD	= Least significant difference
E/W	= Recommended for the East/West region	~	= HOLL (High Oleic, Low Linolenic) variety	TuYV	= Turnip yellows virus	Average LSD (5%):	Varieties that are more than one LSD apart are significantly different at the 95% confidence level
Sp	= Specific recommendation	#	= Specific recommendation for growing on land infected with common strains of clubroot. Believed to be resistant to common strains of clubroot, but this has not been verified in Recommended List tests. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce the risk of resistance breakdown	[ ]	= Limited data		
Conv	= Conventional open-pollinated variety			R	= Believed to be resistant to the trait (TuYV or pod shatter), but this has not been verified in Recommended List tests		
C	= Yield control. For this table, Campus, DK Expansion, Elgar and Temptation were also control varieties but are no longer listed						
*	= Variety no longer under test in RL trials in region						

# Winter oilseed rape 2022/23

## Yield, agronomy and disease resistance

Recommended for the East/West region only												Recommended for the North region only		Described varieties			Average LSD (5%)
												</					

# Winter oilseed rape 2022/23

## Supplementary data



	Recommended for the UK (both East/West and North regions)														Recommended for use on clubroot-infected land only				Average LSD (5%)
	PT303	LG Auckland	Ambassador	LG Aviron	Aurelia	Artemis	Acacia	Annika	Aardvark	Aspire	Matrix CL &	LG Constructor CL &	V 316 OL ~	DK Imprint CL &	Crome #	Croozar #	Crossfit #	Crocodile #	
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv	Conv	Conv	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK Sp	UK Sp	UK Sp	UK Sp	UK Sp	UK Sp	E/W Sp	E/W Sp	
Variety status	NEW	NEW				*		NEW	*	C	NEW	NEW	*			*	NEW		
<b>Breeder/UK contact</b>																			
Breeder	PionOS	LimEur	LimEur	LimEur	LimEur	LimEur	LimEur	LimEur	LimEur	LimEur	DSV	LimEur	MonTec	MonTec	NPZ	Lemb	MonTec	Lemb	
UK contact	Cor	Lim	Lim	Lim	Lim	Lim	Lim	Lim	Lim	Lim	DSV	Lim	Bay	Bay	LSPB	LSPB	DSV	DSV	
<b>Annual treated gross output, yield adjusted for oil content (% control) – UK</b>																			
2018 (5.6 t/ha)	-	-	103	103	104	102	104	-	102	102	-	-	96	91	101	95	-	98	-
2019 (5.5 t/ha)	[107]	[105]	105	105	105	104	105	[104]	101	102	[98]	[95]	95	91	101	98	[94]	98	-
2020 (5.4 t/ha)	106	107	107	108	107	103	102	101	101	98	100	97	99	95	99	97	98	98	-
2021 (5.1 t/ha)	105	106	104	103	105	102	103	103	101	99	96	92	96	92	100	95	95	99	-
<b>Treatment benefit at co-located sites (% treated control) §</b>																			
Treated gross output – UK (5.4 t/ha)	-	-	107	109	106	105	104	-	102	100	-	-	97	95	101	97	-	99	8.7
Untreated gross output – UK (5.4 t/ha) □	-	-	102	105	101	98	99	-	99	96	-	-	93	89	95	89	-	93	7.9
<b>Seed quality (at 9% moisture)</b>																			
Oil content, fungicide-treated (%)	46.0	45.4	45.0	44.3	45.0	45.4	45.3	45.2	45.5	45.5	45.8	44.4	45.2	43.7	46.1	44.5	46.4	44.7	0.3
Glucosinolate (µmoles/g)	8.0	12.2	10.9	11.2	10.2	12.3	8.1	11.6	10.0	9.9	14.2	15.8	12.3	14.3	10.8	12.2	11.7	12.8	-
<b>Status in RL system</b>																			
Year first listed	22	22	20	21	20	20	20	22	20	19	22	22	15	21	19	20	22	20	
RL status	P1	P1	-	P2	-	*	-	P1	*	-	P1	P1	*	P2	-	*	P1	-	


UK	= Recommended for both the East/West and North regions	§	= Co-located sites are a subset of trial locations where both treated and untreated trials are present. Data are presented as a percentage of the treated control varieties at these sites only	[]	= Limited data	LSD	= Least significant difference
E/W	= Recommended for the East/West region	□	= Untreated trials are treated for sclerotinia at flowering	P1	= First year of recommendation	Average LSD (5%):	Varieties that are more than one LSD apart are significantly different at the 95% confidence level
Sp	= Specific recommendation	#	= Specific recommendation for growing on land infected with common strains of clubroot. Believed to be resistant to common strains of clubroot, but this has not been verified in Recommended List tests. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce the risk of resistance breakdown	P2	= Second year of recommendation		
Conv	= Conventional open-pollinated variety			Bay	= Bayer CropScience ( <a href="https://www.bayercropscience.co.uk">bayercropscience.co.uk</a> )		
C	= Yield control. For this table, Campus, DK Expansion, Elgar and Temptation were also control varieties but are no longer listed			Cor	= Corteva Agriscience™ ( <a href="https://www.corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )		
*	= Variety no longer under test in RL trials in region			DSV	= DSV UK ( <a href="https://www.dsv-uk.co.uk">dsv-uk.co.uk</a> )		
&	= Herbicide-tolerant variety. This variety has a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)			Lemb	= Lembke, Germany		
~	= HOLL (High Oleic, Low Linolenic) variety			Lim	= Limagrain UK ( <a href="https://www.lgseeds.co.uk">lgseeds.co.uk</a> )		
				LimEur	= Limagrain Europe SA ( <a href="https://www.lgseeds.co.uk">lgseeds.co.uk</a> )		
				LSPB	= LS Plant Breeding ( <a href="https://www.lspb.eu">lspb.eu</a> )		
				MonTec	= Monsanto Technology LLC ( <a href="https://www.monsanto.com">monsanto.com</a> )		
				NPZ	= NPZ-Lembke, Germany ( <a href="https://www.npz.de">npz.de</a> )		
				PionOS	= Pioneer Overseas Corporation ( <a href="https://www.corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )		



# Winter oilseed rape 2022/23

## Supplementary data



Recommended for the East/West region only												Recommended for the North region only		Described varieties			Average LSD (5%)
																	
	LG Adonis	Dart	Tennyson	LG Antigua	Respect	Flemming	DK Expectation	Darling	Dazzler	PT279CL &	Nizza CL &	Amarone	Blazen	PX131	PX138	Resort	
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv	Hybrid	Hybrid	Hybrid	
Scope of recommendation	E/W	E/W	E/W	E/W	E/W	E/W	E/W	E/W	E/W	E/W Sp	E/W Sp	N	N	UK SD	E/W SD	UK HEAR	
Variety status	NEW	NEW	NEW			NEW		*	*		*	NEW	*		NEW		
Breeder/UK contact																	
Breeder	LimEur	DSV	SyP	LimEur	NPZ	NPZ	MonTec	DSV	DSV	PionOS	R2n	LimEur	KWSMR	PionOS	PionOS	Lemb	
UK contact	Lim	DSV	Els	Lim	LSPB	LSPB	Bay	DSV	DSV	Cor	RAGT	Lim	KWS	Cor	Cor	LSPB	
Annual treated gross output, yield adjusted for oil content (% control) – UK																	
2018 (5.6 t/ha)	-	-	-	104	101	-	99	98	97	94	91	-	100	97	-	91	-
2019 (5.5 t/ha)	[106]	[101]	[100]	104	102	[101]	100	101	101	91	92	[105]	99	92	[94]	90	-
2020 (5.4 t/ha)	104	101	101	104	103	100	100	101	98	93	87	101	100	93	95	89	-
2021 (5.1 t/ha)	104	99	97	102	100	100	95	97	95	93	90	102	100	94	92	92	-
Treatment benefit at co-located sites (% treated control) §																	
Treated gross output - UK (5.4 t/ha)	-	-	-	105	103	-	97	100	98	93	90	-	98	91	-	91	8.7
Untreated gross output - UK (5.4 t/ha) □	-	-	-	101	101	-	92	95	94	89	83	-	93	86	-	88	7.9
Seed quality (at 9% moisture)																	
Oil content, fungicide-treated (%)	46.4	45.5	45.2	45.4	44.9	44.8	45.2	46.0	46.1	44.8	44.7	45.1	44.5	46.4	45.4	45.6	0.3
Glucosinolate (µmoles/g)	9.7	10.0	11.1	11.5	11.8	12.0	12.2	12.2	11.1	10.9	14.9	11.9	10.7	9.4	11.0	14.0	-
Status in RL system																	
Year first listed	22	22	22	21	21	22	21	20	20	19	20	22	20	20	22	20	
RL status	P1	P1	P1	P2	P2	P1	P2	*	*	-	*	P1	*	-	P1	-	
UK = Recommended for both the East/West and North regions E/W = Recommended for the East/West region N = Recommended for the North region Sp = Specific recommendation Conv = Conventional open-pollinated variety SD = Semi-dwarf variety HEAR = High Erucic Acid variety C = Yield control. For this table, Campus, DK Expansion, Elgar and Temptation were also control varieties but are no longer listed * = Variety no longer under test in RL trials in region & = Herbicide-tolerant variety. This variety has a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety) § = Co-located sites are a subset of trial locations where both treated and untreated trials are present. Data are presented as a percentage of the treated control varieties at these sites only □ = Untreated trials are treated for sclerotinia at flowering [] = Limited data P1 = First year of recommendation P2 = Second year of recommendation Bay = Bayer CropScience (bayercropscience.co.uk) Cor = Corteva Agriscience™ (corteva.co.uk/pioneer) DSV = DSV UK (dsv-uk.co.uk) Els = Elsoms Seeds Ltd (elsoms.com) KWSMR = KWS Momont Recherche (kws-uk.com) KWS = KWS UK (kws-uk.com) Lemb = Lembke, Germany Lim = Limagrain UK (lgseeds.co.uk) LimEur = Limagrain Europe SA (lgseeds.co.uk) LSPB = LS Plant Breeding (lspb.eu) MonTec = Monsanto Technology LLC (monsanto.com) NPZ = NPZ-Lembke, Germany (npz.de) PionOS = Pioneer Overseas Corporation (corteva.co.uk/pioneer) R2n = RAGT, France (ragt.co.uk) RAGT = RAGT Seeds (ragt.co.uk) SyP = Syngenta Participations AG (syngenta.co.uk) LSD = Least significant difference Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level																	

# Candidate varieties – winter oilseed rape trials harvest 2022



Candidate varieties – UK			
	Previous/proposed name	Variety ID	UK contact
DK Expose	CWH462	3287	Bayer CropScience
Murray	NPZ19244W11	3304	LS Plant Breeding
Vegas	NPZ19245W11	3306	LS Plant Breeding
Turing	NPZ19246W11	3307	LS Plant Breeding
LE19/419	-	3320	Limagrain UK
LG Wagner	LE19/428	3322	Limagrain UK

Candidate varieties will be considered for the 2023/24 AHDB Recommended List.

After a candidate variety achieves National Listing, 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 – East/West			
	Previous/proposed name	Variety ID	UK contact
RAP 609	-	3311	DSV UK
RAP 610	-	3312	DSV UK
Beatrix CL	WRH 567	3314	DSV UK
H9160195	-	3318	KWS UK
LG Ancona	LE18/401	3321	Limagrain UK
MH 17HR272	-	3330	KWS UK
CBI 18-47	Tom	3345	Cluser Breeding International GmbH

Candidate varieties will be considered for the 2023/24 AHDB Recommended List.

# Spring oilseed rape Descriptive List 2022



	Lagonda	Performer	Lakritz	Lavina	Fergus	Lumen	Builder	Menthal #	Contra CL &	Caramino CL &	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Variety status				<b>NEW</b>	<b>NEW</b>	<b>C</b>				<b>NEW</b>	
<b>Gross output, yield adjusted for oil content (% control)</b>											
UK without fungicide (3.1 t/ha)	[107]	[107]	[107]	[104]	[101]	[101]	[100]	[100]	[96]	[92]	7.9
Number of trials	8	8	6	5	5	9	9	6	6	5	
<b>Seed yield (% control)</b>											
UK without fungicide (2.9 t/ha)	[108]	[106]	[108]	[104]	[100]	[101]	[100]	[100]	[98]	[92]	8.0
<b>Seed quality (at 9% moisture)</b>											
Oil content (%)	[43.7]	[45.3]	[43.5]	[44.4]	[45.2]	[44.2]	[44.7]	[43.6]	[43.4]	[45.0]	0.7
Glucosinolate content (µmoles/g)	11.0	13.6	10.6	12.5	12.3	11.0	14.4	10.5	12.4	11.3	-
<b>Agronomic features</b>											
Shortness of stem (1–9)	7	6	[7]	[7]	[7]	7	6	[6]	[6]	[6]	0.4
Earliness of flowering (1–9)	7	7	[7]	[7]	[7]	7	7	[7]	[7]	[6]	0.3
Earliness of maturity (1–9)	5	5	[5]	[5]	[5]	6	5	[5]	[5]	[5]	0.5
<b>Annual gross output, yield adjusted for oil content (% control)</b>											
2017 (3.3 t/ha)	[124]	[115]	-	-	-	[100]	[100]	-	-	-	18.5
2018 (3.4 t/ha)	[[108]]	[[113]]	[[102]]	-	-	[[103]]	[[102]]	[[101]]	[[93]]	-	-
2019 (3.8 t/ha)	[[96]]	[[94]]	[[100]]	[[94]]	[[89]]	[[100]]	[[97]]	[[95]]	[[95]]	[[95]]	-
2020 (3.0 t/ha)	[99]	[106]	[106]	[105]	[102]	[104]	[101]	[100]	[92]	[88]	14.0
2021 (2.3 t/ha)	[105]	[105]	[113]	[106]	[106]	[99]	[100]	[98]	[100]	[89]	11.9
<b>Breeder/UK contact</b>											
Breeder	NPZ	BASF	NPZ	NPZ	Lant	NPZ	BASF	NPZ	NPZ	NPZ	
UK contact	DSV	BASF	DSV	DSV	Sen	DSV	BASF	DSV	DSV	DSV	
<b>Status in DL system</b>											
Year first listed	19	20	21	22	22	18	15	21	21	22	
DL status	-	-	P2	P1	P1	-	-	P2	P2	P1	

**Varieties no longer listed:** Cebra CL, INV110 CL, Lexus, Mirakel and Sunder.

**The data in this table are provided for information only and do not constitute a recommendation.**

On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. early maturity).

Glucosinolate contents are taken from the National List trials data.

Conv	= Conventional open-pollinated variety	#	= Believed to be resistant to common strains of clubroot, but this has not been verified in Recommended List tests. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce the risk of resistance breakdown	&	= Herbicide-tolerant variety. This variety has a tolerance to specific imidazolinone herbicides (a Clearfield® variety)	[ ]	= Limited data	[ [ ] ]	= 1 trial only	Lant	= Lantmannen SW Seed BV ( <a href="http://lantmannen.com">lantmannen.com</a> )
C	= Yield control. For this table, Sunder is also a control variety but is no longer listed							P1	= First year of listing	NPZ	= NPZ-Lembke, Germany ( <a href="http://npz.de">npz.de</a> )
								P2	= Second year of listing	Sen	= Senova ( <a href="http://senova.uk.com">senova.uk.com</a> )
								BASF	= BASF Agricultural Solutions Seed US LLC ( <a href="http://agricentre.basf.co.uk">agricentre.basf.co.uk</a> )	LSD	= Least significant difference
								DSV	= DSV UK ( <a href="http://dsv-uk.co.uk">dsv-uk.co.uk</a> )	Average LSD (5%)	= Varieties that are more than one LSD apart are significantly different at the 95% confidence level

# Spring linseed Descriptive List 2022



	Juliet	Bingo	Bliss	Buffalo	Ineke	Bowler	Octal	Batsman	Daniel	Lion	Aquarius	Sarah	Abacus	Average LSD (5%)
Seed colour	B	B				B	B	B		B	B	B	B	
Variety status								C			C	NEW	C	
<b>Seed yield as % control</b>														
UK without fungicide (2.2 t/ha)	114	111	110	107	106	106	106	103	100	99	99	99	98	9.7
Number of trials	16	16	16	13	16	16	16	16	16	12	16	11	16	
<b>Seed quality (at 9% moisture)</b>														
Oil content (%)	41.5	40.0	40.3	42.3	39.8	40.9	40.7	40.4	39.8	42.7	42.7	40.7	39.7	0.5
<b>Agronomic features</b>														
Plant height (cm)	56	52	50	51	58	51	50	54	53	49	52	54	50	2.2
Earliness of flowering (1–9)	4	5	6	4	2	4	4	6	6	5	6	3	5	0.8
Earliness of maturity (1–9)	5	6	6	6	4	6	6	7	5	6	7	5	7	0.7
<b>Annual seed yield (% control)</b>														
2017 (1.7 t/ha)	[114]	[104]	[118]	-	[107]	[110]	[109]	[101]	[103]	[100]	[102]	-	[98]	11.7
2018 (2.5 t/ha)	[126]	[119]	[103]	[103]	[100]	[100]	[103]	[106]	[103]	[94]	[99]	-	[95]	16.2
2019 (2.1 t/ha)	[108]	[109]	[118]	[110]	[113]	[111]	[111]	[107]	[97]	[103]	[97]	[99]	[95]	11.1
2020 (2.6 t/ha)	[121]	[107]	[109]	[110]	[112]	[108]	[100]	[103]	[96]	-	[100]	[106]	[97]	11.6
2021 (2.0 t/ha)	[100]	[115]	[107]	[103]	[97]	[100]	[108]	[98]	[104]	[101]	[98]	[89]	[104]	9.8
<b>Breeder/UK contact</b>														
Breeder	GKI	Bilt	Bilt	Bilt	JTSD	Bilt	LaS	Bilt	Med	LimEur	LimEur	JTSD	JTSD	
UK contact	Agr	Els	Els	Els	Bost	Els	Dalt	Els	Agr	Sat	Bost	DSV	Sen	
<b>Status in DL system</b>														
Year first listed	01	17	20	21	18	13	17	12	18	18	17	22	06	
DL status	-	-	-	P2	-	-	-	-	-	-	-	P1	-	

Variety no longer listed: Galaad.

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

On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. early maturity).

B = Brown	Agr = Agrii ( <a href="https://agrii.co.uk">agrii.co.uk</a> )	Els = Elsoms Seeds Ltd ( <a href="https://elsoms.com">elsoms.com</a> )	Med = Medovarsky	LSD = Least significant difference
C = Yield control (for current table)	Bost = Boston Seeds Ltd ( <a href="https://bostonseeds.com">bostonseeds.com</a> )	GKI = GK Kht, Hungary	Sat = Saturn Seeds ( <a href="https://saturnseeds.com">saturnseeds.com</a> )	Average LSD (5%): Varieties that
[ ] = Limited data	Bilt = van de Bilt, Netherlands	JTSD = JTSD Ltd ( <a href="https://jtsd.co.uk">jtsd.co.uk</a> )	Sen = Senova ( <a href="https://senova.uk.com">senova.uk.com</a> )	are more than one LSD apart are
P1 = First year of listing	Dalt = Dalton Seeds ( <a href="https://dalmark.co.uk">dalmark.co.uk</a> )	LaS = Laboulet Semences, France		significantly different at the 95%
P2 = Second year of listing	DSV = DSV UK ( <a href="https://dsv-uk.co.uk">dsv-uk.co.uk</a> )	LimEur = Limagrain Europe SA ( <a href="https://lgseeds.co.uk">lgseeds.co.uk</a> )		confidence level



# Winter triticale Descriptive List 2022/23



	Kasyno	SU Liborious	KWS Fido	Temuco	Belcanto	Tender PZO	Cyrkon	Toro	Tribeca	Average LSD (5%)
Variety status	C		C							
<b>Grain yield (as % treated control)</b>										
Fungicide-treated (10.7 t/ha)	101	99	99	99	96	95	94	93	91	9.5
Number of trials	12	10	12	10	10	12	12	12	10	
<b>Agronomic features</b>										
Lodging (%)	[0]	-	[0]	-	-	[16]	[0]	[0]	[9]	2.6
Straw length (cm)	101	[106]	110	[106]	[109]	124	98	96	116	6.4
Ripening (days +/- Agostino, -ve = earlier)	[+1]	[0]	[0]	[+1]	[+4]	[0]	[0]	[0]	[0]	2.4
<b>Grain quality</b>										
Specific weight (kg/hl)	73.1	72.1	75.5	71.2	77.8	74.0	72.7	70.9	71.5	1.5
Protein content (%)	11.9	12.1	11.5	11.7	12.6	12.3	12.0	12.3	12.0	0.6
<b>Disease resistance</b>										
Yellow rust (1–9)	8	7	6	7	7	5	4	5	7	0.9
<b>Breeder/UK contact</b>										
Breeder	Dank	Nord	Lant	Lant	Dank	IGP	Hod	Hod	Desp	
UK contact	Sen	SU	Sen	Sen	Sen	Sen	Dalt	Dalt	Els	
<b>Status in DL system</b>										
Year first listed	18	21	14	21	21	20	16	20	12	
DL status	-	P2	-	P2	P2	-	-	-	-	

Varieties no longer listed: Agostino.

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

On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

C = Yield control (for current table)	Dalt = Dalton Seeds ( <a href="http://dalmark.co.uk">dalmark.co.uk</a> )	Els = Elsoms Seeds Ltd ( <a href="http://elsoms.com">elsoms.com</a> )	Nord = Nordsaat, Germany ( <a href="http://nordsaat.de">nordsaat.de</a> )	LSD = Least significant difference
[ ] = Limited data	Dank = Danko Hodowla Roslin, Poland ( <a href="http://danko.pl">danko.pl</a> )	Hod = Hodowla Roslin Strzelce, Poland ( <a href="http://hr-strzelce.pl">hr-strzelce.pl</a> )	Sen = Senova ( <a href="http://senova.uk.com">senova.uk.com</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
P2 = Second year of listing	Desp = Maison Florimond Desprez, France ( <a href="http://florimond-desprez.com">florimond-desprez.com</a> )	IGP = I.G. Pflanzenzucht, Germany	SU = Saaten Union UK ( <a href="http://saaten-union.co.uk">saaten-union.co.uk</a> )	
		Lant = Lantmannen SW Seed BV		

# Winter rye Descriptive List 2022/23




	KWS Tayo	SU Baresi	KWS Serafino	SU Performer	SU Bendix	SU Elrond	SU Arvid	SU Pluralis	Poseidon	SU Cossani	SU Mephisto	SU Nasri	Inspector	Dukato	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv	
Variety status	NEW	NEW		C	NEW	NEW		NEW							
<b>Grain yield (as % treated control)</b>															
Fungicide-treated (10.2 t/ha)	104	102	102	100	99	99	98	97	97	96	95	95	84	83	4.7
Number of trials	11	11	13	15	11	11	13	11	13	15	15	13	15	15	
<b>Agronomic features</b>															
Lodging (%)	[3]	[14]	[4]	[13]	[15]	[17]	[28]	[29]	[6]	[18]	[24]	[18]	[34]	[27]	4.6
Straw length (cm)	128	127	130	128	130	133	134	127	130	126	128	128	143	140	6.6
Ripening (days +/- SU Mephisto, -ve = earlier)	+1	+1	+1	0	+1	+1	+1	+1	0	0	0	0	0	0	1.5
<b>Grain quality</b>															
Protein content (%)	9.6	9.0	9.5	9.5	9.9	9.6	9.4	9.3	10.2	9.7	9.7	9.8	10.2	9.9	0.4
Hagberg Falling Number	259	238	258	244	216	231	197	212	177	231	220	215	215	206	22.0
Specific weight (kg/hl)	76.6	77.5	76.7	77.4	77.3	78.9	76.7	77.2	75.9	76.8	76.5	76.3	77.9	77.8	1.0
<b>Disease resistance</b>															
Brown rust (1–9)	[7]	[5]	7	4	[4]	[5]	4	[4]	4	4	3	3	4	4	1.1
<b>Breeder/UK contact</b>															
Breeder	KWSGmbh	Hybro	KWSGmbh	Hybro	Hybro	Hybro	Hybro	Hybro	NS	SU	Hybro	Hybro	PHP	Hybro	
UK contact	KWS	SU	KWS	SU	SU	SU	SU	SU	Dalt	SU	SU	SU	SU	SU	
<b>Status in DL system</b>															
Year first listed	22	22	21	17	22	22	21	22	21	18	15	21	16	17	
DL status	P1	P1	P2	-	P1	P1	P2	P1	P2	-	-	P2	-	-	

The data in this table is provided for information only and does not constitute a recommendation.  
On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).


Conv	= Conventional variety	Dalt	= Dalton Seeds ( <a href="http://dalmark.co.uk">dalmark.co.uk</a> )	PHP	= P.H. Petersen, Germany ( <a href="http://phpetersen.com">phpetersen.com</a> )
C	= Yield control (for current table)	Hybro	= Hybro, Germany ( <a href="http://saaten-union.co.uk">saaten-union.co.uk</a> )	SU	= Saaten Union UK ( <a href="http://saaten-union.co.uk">saaten-union.co.uk</a> )
[ ]	= Limited data	KWS	= KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	LSD	= Least significant difference
P1	= First year of listing	KWSGmbh	= KWS Lochow GmbH ( <a href="http://kws-uk.com">kws-uk.com</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level	
P2	= Second year of listing	NS	= Nordic Seed, Denmark		

# Descriptive List candidate varieties – trials harvest 2022

			
	Previous/proposed name	Variety ID	UK contact
<b>Spring linseed</b>			
LN2011	-	255	Limagrain UK
Gilbert	FP2432	256	JTSD Ltd
GOP22	-	258	Premium Crops

Candidate varieties will be considered for the 2023 AHDB Descriptive Lists.

After a candidate variety achieves National Listing, 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))

			
	Previous/proposed name	Variety ID	UK contact
<b>Winter triticale</b>			
Lumaco	11SWE073-7	124	Senova
<b>Winter rye</b>			
HYH329	SU Nordius	59	Saaten Union UK
HYH314	-	60	Saaten Union UK
KWS Igor	KWS-H200	61	KWS UK
KWS Detektor	KWS-H198	62	KWS UK

Candidate varieties will be considered for the 2023/24 AHDB Descriptive Lists.

## GET THE LATEST INFORMATION

### Market Report

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

### Grain Market Daily

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

Register your interest today: [ahdb.org.uk/keeping-in-touch](https://ahdb.org.uk/keeping-in-touch)

### CPD points

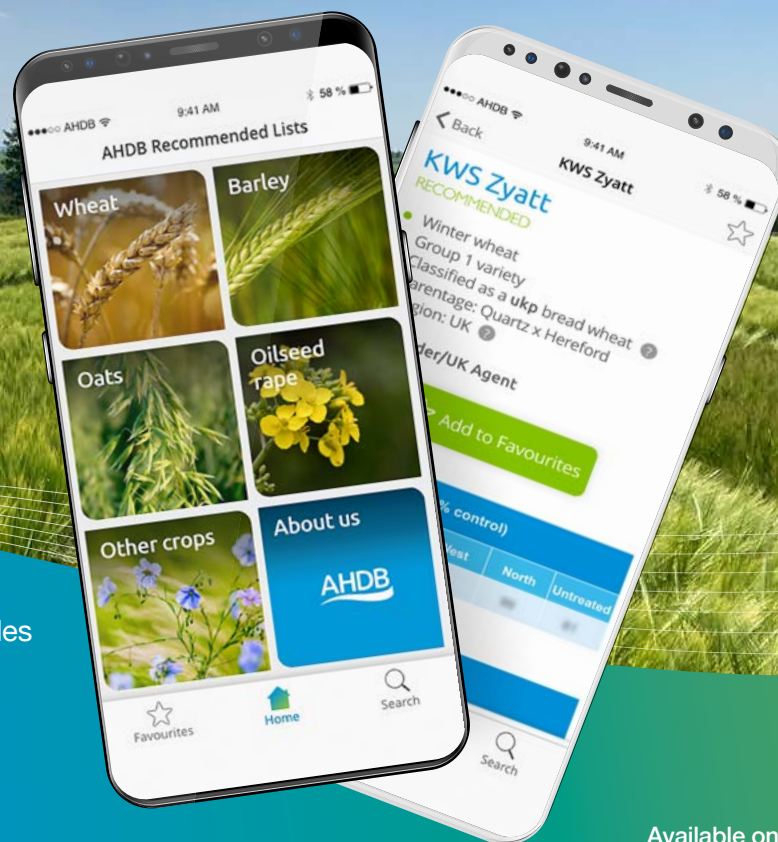
People who subscribe to receive agronomy publications issued by AHDB Cereals & Oilseeds are eligible to receive BASIS and NRoSO CPD points

Find out more at [ahdb.org.uk/cpd](https://ahdb.org.uk/cpd)

# Recommended Lists app

Delivering the latest variety data to your fingertips...

RL



- Features Recommended and Described varieties
- Free to download (iOS and Android devices)
- Works offline
- Clearly designed menus and tables
- Powerful in-built search function
- 'Favourites' function
- 'Notes' function
- Latest information

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

Available on Google Play and App Store









The AHDB Recommended Lists 2022/23 is managed by a project consortium of AHDB Cereals & Oilseeds, BSPB, MAGB and UKFM.

Funding for the Recommended List trials and tests is provided by AHDB Cereals & Oilseeds but the production of the Lists would be impossible without the contribution and support of the industry.

The information contained within this publication is copyright of AHDB, for permission to use/reproduce please contact us.

## Contact us

For specific Recommended Lists enquiries:

@ [rl@ahdb.org.uk](mailto:rl@ahdb.org.uk)

024 7647 8754

To order printed publications:

@ [publications@ahdb.org.uk](mailto:publications@ahdb.org.uk)

0247 799 0069

**AHDB Cereals & Oilseeds**  
Stoneleigh Park  
Kenilworth  
Warwickshire  
CV8 2TL

If you no longer wish to receive this information, please email us on [comms@ahdb.org.uk](mailto:comms@ahdb.org.uk)

20018 0422

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)

While the Agriculture and Horticulture Development Board seeks to ensure that the information contained within this document is accurate at the time of printing, no warranty is given in respect thereof and, to the maximum extent permitted by law, the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.

© Agriculture and Horticulture Development Board 2022.  
All rights reserved.

## Preliminary data

The selection of new varieties to promote into AHDB Recommended List trials is made on the basis of preliminary data collected during National List and other trials and tests and these data also make a major contribution to the variety means presented in the Recommended List tables. Acknowledgement is made to Defra and the devolved governments as well as BSPB for the use of these data.



## Processors

AHDB is grateful for the valuable contributions made by member companies of BBPA, MAGB, SWA, SWRI and UKFM who conduct milling and distilling tests both at the preliminary and Recommended List stages.



## Test and trials contractors

AHDB is grateful to the following organisations who, as well as undertaking contract work for the Recommended Lists, provide much valuable advice: ADAS, Agri-Food and Biosciences Institute, Biomathematics & Statistics Scotland, BSPB, Campden BRI, Envirofield, Frontier Agriculture Ltd, Gold Crop, Harper Adams University, NIAB TAG, Scottish Agronomy, SRUC, Stockbridge Technology Centre and Trials Force Ltd.



## 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 Recommended Lists trials.

