

# AHDB Recommended Lists for cereals and oilseeds 2020/21



Produced in partnership with:



Maltsters Association of Great Britain



National Association of British and Irish Millers

# Using the AHDB Recommended Lists (RL)

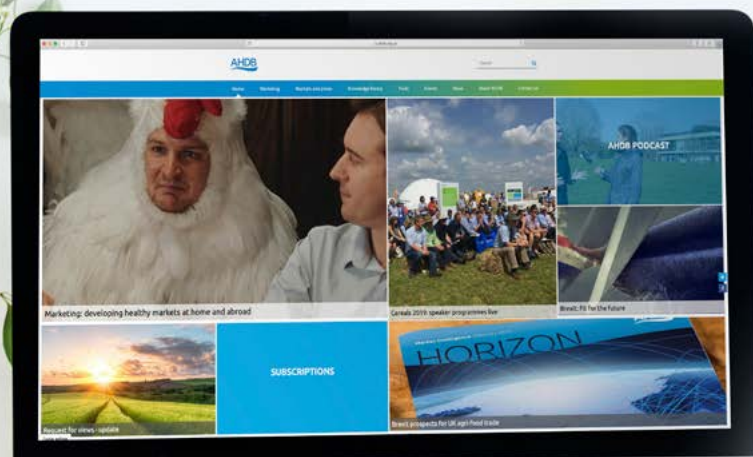
## Understanding the Recommended Lists (RL)

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

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

## A world of knowledge awaits at [ahdb.org.uk](http://ahdb.org.uk)

You can now find all of AHDB's resources in one place...



### Quick links

- Varieties: [ahdb.org.uk/rl](http://ahdb.org.uk/rl)
- Nutrients: [ahdb.org.uk/rb209](http://ahdb.org.uk/rb209)
- Diseases (cereals): [ahdb.org.uk/cereal-dmg](http://ahdb.org.uk/cereal-dmg)
- Diseases (oilseed rape): [ahdb.org.uk/osr-dmg](http://ahdb.org.uk/osr-dmg)
- Pests: [ahdb.org.uk/pests](http://ahdb.org.uk/pests)
- Weeds: [ahdb.org.uk/arableweeds](http://ahdb.org.uk/arableweeds)
- Soils: [ahdb.org.uk/greatsoils](http://ahdb.org.uk/greatsoils)
- Post-harvest: [ahdb.org.uk/harvest-toolkit](http://ahdb.org.uk/harvest-toolkit)
- General: [ahdb.org.uk/cereals](http://ahdb.org.uk/cereals)

### Recently added titles

- Recommended Lists for cereals and oilseeds 2020/21
- Nutrient management guide (RB209) 2020 edition
- Wheat and barley disease management guide
- Principles of soil management

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# Using the AHDB Recommended Lists (RL)

## Status in the Lists

### Scope of recommendation

Refers to a UK or regional recommendation, or a recommendation for a specific end use or agronomic feature.

### Varieties no longer listed

Varieties no longer recommended, or which the breeder has withdrawn from the RL.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).

### Regional Lists for winter oilseed rape

Winter oilseed rape varieties are presented on a single UK list. Regional recommendations are maintained, with varieties ordered according to the scope of recommendation. Varieties that are suitable for both the East/West (up to Teesside) and North regions have a UK recommendation. When choosing a variety, consider those recommended for the UK and your region.

### 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.

### Candidate varieties

Candidate varieties are usually in their first or second year of RL trials, having completed at least 2 years of preliminary trials (e.g. National List trials). If data is sufficient, they are considered for recommendation in the autumn.

### Varieties grown in trials but not added to the RL

These varieties were grown in RL trials but failed to meet the criteria for recommendation. Although not

added to the RL, data are included for information, as seed may be available.

### Descriptive List (DL) varieties

Descriptive Lists show trial data for spring oilseed rape, spring linseed, winter triticale and winter rye. The data available are presented for varieties for which seed is likely to be available. A place on the DL does not constitute a recommendation.

### 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. Various established varieties are selected as controls and the average UK yield of these varieties is set to 100%. For example, if the average yield of the control varieties is 10.2 t/ha, then 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 the region that is most appropriate for their conditions.

### Annual yields

Annual yields provide a breakdown of variety performance in different seasons over the years in which the variety has been tested. 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.

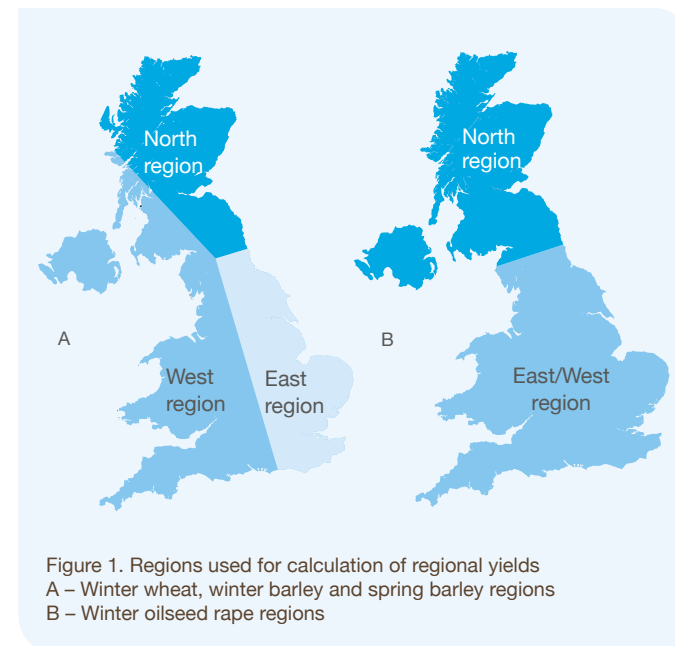


Figure 1. Regions used for calculation of regional yields  
A – Winter wheat, winter barley and spring barley regions  
B – Winter oilseed rape regions

### Oat quality

Grain quality characteristics presented for oats include kernel content, specific weight and per cent screenings through a 2-mm sieve. High kernel content, high specific weight and low per cent screenings are preferred for milling.

### Sprouting

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

## 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 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.

### Ripening

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 given have been collated from RL trials, but differences can be far greater on farm – particularly when growing conditions are more marginal.

### 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 lower 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.

### 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 pathogen races relatively soon after release. Important exceptions to this 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.

### 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 just by chance and should be treated with caution.

## A new perspective on the RL

### VARIETYSELECTION

- Identify the most promising varieties for your unique situation with our online variety selection tool
- Use filters to specify market requirements, account for key diseases and reflect preferred agronomic features
- Use agronomic merit scores to highlight varieties with the greatest genetic potential to resist lodging and key diseases
- Updated following the release of the RL each year, the tool is available for winter wheat and spring barley. In 2020, the tool will cover additional crops on the RL

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

## 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.

### nabim – quality wheats

Many considerations will affect wheat variety choice, but there is a consistent market for UK-grown quality wheat, with **nabim** 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 **nabim** website [nabim.org.uk](http://nabim.org.uk) offers further information on milling wheat quality requirements and the structure and needs of the milling industry. It also features a tool that can be used to identify local mills: [nabim.org.uk/mill-map](http://nabim.org.uk/mill-map)

### Exports – quality wheats

There is a core market overseas for UK-grown wheat and growers can capitalise on this opportunity when choosing varieties to grow. Overseas buyers have different requirements to domestic buyers and distance to a port needs to be considered.

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 right). North African and Middle Eastern markets prefer a lower moisture content, often less than 14%.

# Milling Wheat Conference 2020





27 February 2020, Cambridgeshire

The AHDB Milling Wheat Conference recognises innovation and excellence in milling wheat production. It brings together the supply chain to ensure quality throughout production, from variety to loaf.

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



### Typical specifications

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

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 that is very extensible with low strength

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

# Winter wheat 2020/21

## Market options, yield and grain quality



AHDB

RECOMMENDED

KWS Zyatt

Skyfall

Crusoe

RGT Illustrious

KWS Extase

KWS Siskin

LG Detroit

KWS Lili

KWS Firefly

KWS Barrel

Elicit

KWS Basset

Zulu

LG Skyscraper

RGT Saki

LG Spotlight

KWS Jackal

Elation

Bennington

LG Sundance

LG Motown

Leeds

Viscount

Revelation

Average LSD (5%)

End-use group

Scope of recommendation

nabim Group 1

nabim Group 2

nabim Group 3

Soft Group 4

UK UK UK UK

UK UK E&W UK

UK UK UK UK UK

UK UK UK N UK E&W UK UK N N UK

C

C \*

C \* \*

NEW C \* \* \*

Fungicide-treated grain yield (% treated control)

United Kingdom (11.2 t/ha)

East region (11.1 t/ha)

West region (11.2 t/ha)

North region (11.3 t/ha)

99 97 96 96

99 97 96 96

99 97 97 96

97 96 92 92

101 101 100 99

100 101 100 99

101 101 101 99

100 98 [93] 101

102 100 100 98 97

102 100 99 98 97

102 100 100 98 97

98 104 100 97 98

105 104 103 101 101 101 100 99 97 96 96

106 104 102 101 101 101 100 99 97 96 96

104 104 104 101 101 102 100 99 96 96 95

103 [101] 100 102 101 96 99 98 98 99 95

2.1

2.3

2.7

3.1

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

UK bread-making

UK biscuit, cake-making

UK distilling

ukp bread wheat for export

uks soft wheat for export

Y Y Y Y

- - - -

- - - -

Y - Y -

- - - -

Y Y Y Y Y

- - - -

- - - -

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Grain quality

Endosperm texture

Protein content (%)

Protein content (%) - Milling spec

Hagberg Falling Number

Specific weight (kg/hl)

Chopin alveograph W

Chopin alveograph P/L

Hard Hard Hard Hard

12.4 12.4 12.9 12.2

13.2 13.3 13.5 13.0

269 278 273 272

77.8 78.3 77.9 77.2

181 - 217 -

0.7 - 0.6 -

Hard Hard Hard Hard

12.0 11.9 12.3 11.5

12.6 12.6 12.9 12.2

297 286 279 295

78.4 77.2 77.6 77.3

199 164 212 [183]

0.6 0.5 0.7 [0.7]

Soft Soft Soft Soft Soft

11.9 11.3 11.7 11.6 11.7

12.6 12.0 12.3 12.3 12.4

245 224 216 235 225

75.8 77.1 76.9 77.5 76.0

[90] 96 90 93 103

[0.3] 0.4 0.3 0.4 0.3

Soft Soft Soft Soft Soft

11.4 11.6 11.4 11.1 11.6 11.7 11.3 11.4 11.4 11.4 11.8

12.1 12.1 12.1 12.0 12.3 12.3 12.1 12.0 12.2 12.2 12.5

218 221 288 182 206 236 175 223 216 195 250

76.9 75.7 77.9 75.6 77.4 77.5 73.9 75.6 77.8 75.9 76.4

- - [72] [77] 94 91 [87] [65] - - -

- - [0.3] [0.3] 0.3 0.4 [0.3] [0.3] - - -

0.2

0.3

26.8

0.7

19.8

0.1

**Varieties no longer listed:** Evolution, JB Diego, KWS Trinity and Myriad.

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 Plant Growth Regulator (PGR) programme.

UK = Recommended for the UK	C = Yield control (for current table). For this table KWS Santiago was also a yield control but is no longer listed	[ ] = Limited data	LSD = Least significant difference
E&W = Recommended for the East and West regions	* = 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
N = Recommended for the North region		[Y] = May be suited to that market	



# Winter wheat 2020/21

## Market options, yield and grain quality



	SY Insitor	KWS Kinetic	Gleam	RGT Gravity	KWS Kerrin	Shabras	Graham	KWS Crispin	Theodore	Dunston	Costello	Average LSD (5%)
End-use group	Hard Group 4											
Scope of recommendation	UK	UK	UK	UK	E&W	UK	UK	UK	W	UK	UK	
	NEW	NEW						*	NEW	*		
Fungicide-treated grain yield (% treated control)												
United Kingdom (11.2 t/ha)	105	104	103	103	102	102	102	101	100	100	99	2.1
East region (11.1 t/ha)	104	104	103	103	102	102	101	101	100	100	99	2.3
West region (11.2 t/ha)	105	105	103	103	102	102	104	101	102	99	101	2.7
North region (11.3 t/ha)	[105]	[102]	102	102	103	102	99	96	[[91]]	99	98	3.1
Main market options (The specific attributes of varieties are different, so, whenever possible, varieties should not be mixed in store)												
UK bread-making	-	-	-	-	-	-	-	-	-	-	-	
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	-	-	
UK distilling	-	-	-	-	-	-	-	-	-	-	-	
ukp <sup>®</sup> bread wheat for export	-	-	-	-	-	-	-	-	-	-	-	
uks <sup>®</sup> soft wheat for export	-	-	-	-	-	-	-	-	-	-	-	
Grain quality												
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	
Protein content (%)	10.7	11.3	11.3	11.4	10.9	11.4	11.4	11.7	12.1	11.6	12.0	0.2
Protein content (%) – Milling spec	11.2	12.0	12.0	12.0	11.5	12.1	11.9	12.5	12.7	12.4	12.5	0.3
Hagberg Falling Number	265	262	219	204	151	209	276	273	307	229	321	26.8
Specific weight (kg/hl)	78.3	78.5	76.3	76.0	76.3	75.9	76.8	77.0	73.8	76.9	80.7	0.7
Chopin alveograph W	-	-	-	-	-	-	[124]	-	-	-	-	19.8
Chopin alveograph P/L	-	-	-	-	-	-	[0.5]	-	-	-	-	0.1

Varieties no longer listed: Evolution, JB Diego, KWS Trinity and Myriad.

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 Plant Growth Regulator (PGR) programme.

UK = Recommended for the UK  
E&W = Recommended for the East and West regions  
W = Recommended for the West region

C = Yield control (for current table). For this table  
[[ ]] = KWS Santiago was also a yield control but is no longer listed  
\* = Variety no longer under test in RL trials

[ ] = Limited data  
[[ ]] = Very limited data  
Y = Suited to that market  
[Y] = May be suited to that market

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

## Yield, agronomy and disease resistance



### Scope of recommendation

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.

C = Yield control (for current table). For this table KWS Santiago was also a yield control but is no longer listed  
\* = Variety no longer under test in RL trials  
[ ] = Limited data

- [[ ]] = Very 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 2020/21

## Yield, agronomy and disease resistance



	SY Insitor	KWS Kinetic	Gleam	RGT Gravity	KWS Kerrin	Shabras	Graham	KWS Crispin	Theodore	Dunston	Costello	Average LSD (5%)
End-use group	Hard Group 4											
Scope of recommendation	UK	UK	UK	UK	E&W	UK	UK	UK	W	UK	UK	
	NEW	NEW						*	NEW	*		
Fungicide-treated grain yield (% treated control)												
United Kingdom (11.2 t/ha)	105	104	103	103	102	102	102	101	100	100	99	2.1
East region (11.1 t/ha)	104	104	103	103	102	102	101	101	100	100	99	2.3
West region (11.2 t/ha)	105	105	103	103	102	102	104	101	102	99	101	2.7
North region (11.3 t/ha)	[105]	[102]	102	102	103	102	99	96	[[91]]	99	98	3.1
Untreated grain yield (% treated control)												
United Kingdom (11.2 t/ha)	82	79	84	79	79	81	88	83	90	82	81	4.9
Agronomic features												
Resistance to lodging without PGR (1–9)	6	7	7	7	7	7	7	7	7	7	7	0.6
Resistance to lodging with PGR (1–9)	7	8	7	7	7	7	8	7	8	8	8	0.5
Height without PGR (cm)	93	83	86	87	85	86	87	86	82	92	82	1.7
Ripening (days +/- Skyfall, -ve = earlier)	+1	0	0	+1	+1	0	0	+1	0	+1	+2	0.6
Resistance to sprouting (1–9)	[5]	[6]	[5]	[4]	[5]	[4]	7	5	[7]	[5]	6	0.8
Disease resistance												
Mildew (1–9)	6	6	6	4	7	6	7	6	7	5	8	1.0
Yellow rust (1–9) - see note below	7	6	7	8	7	7	8	9	9	7	9	0.7
Brown rust (1–9) - see note below	4	6	6	6	7	5	6	5	7	6	5	1.1
Septoria nodorum (1–9)	-	-	[6]	[6]	[6]	[6]	[6]	[6]	-	[6]	[6]	0.9
Septoria tritici (1–9)	6.6	5.0	6.3	4.8	4.9	6.3	6.8	5.9	8.2	6.6	6.1	0.8
Eyespot (1–9)	-	-	4	4	5	4	4	4	-	6@	5	1.7
Fusarium ear blight (1–9)	6	6	6	6	6	5	6	6	6	6	6	0.5
Orange wheat blossom midge	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.

### Yellow and brown rust ratings

During 2019, higher than expected levels of yellow and brown rust were seen in some varieties in some trials. Careful analysis of the 2019 data from RL trials did not reveal dramatic changes in average disease ratings. These are national average ratings and it is not yet clear if the reported cases of high yellow and brown rust disease levels in 2019 indicate the initial emergence of new rust races or exceptionally high disease pressure at some sites. Given the highly dynamic nature of the yellow and brown rust populations in the UK in recent years, all varieties should be closely monitored for rusts: local rust populations may differ from the general UK population and may be more or less virulent on a variety than the RL rating suggests.

## Supplementary data



<div>AHDB</div> <div>RECOMMENDED</div>		<div>KWS ZyattSkyfallCrusoeRGT IllustriousKWS ExtaseKWS SiskinLG DetroitKWS LiliKWS FireflyKWS BarrelElicitKWS BassetZuluLG SkyscraperRGT SakiLG SpotlightKWS JackalElationBenningtonLG SundanceLG MotownLeedsViscountRevelation</div>																								Average LSD (5%)	
End-use group	nabim Group 1				nabim Group 2				nabim Group 3					Soft Group 4													
Scope of recommendation	UK	UK	UK	UK	UK	UK	E&W	UK	UK	UK	UK	UK	UK	UK	UK	UK	N	UK	E&W	UK	UK	N	N	UK			
	C				C				*	C					*	*	C						*	*	*	*	
Breeder/UK contact																											
Breeder	KWS	RAGT	Lim	R2n	Mom	KWS	LimEur	KWS	KWS	KWS	ElsW	KWS	Lim	LimEur	RAGT	LimEur	KWS	ElsW	ElsW	LimEur	LimEur	Mom	KWS	Lim			
UK contact	KWS	RAGT	Lim	RAGT	KWS	KWS	Lim	KWS	KWS	KWS	Els	KWS	Lim	Lim	RAGT	Lim	KWS	Els	Els	Lim	Lim	KWS	KWS	Lim			
Annual treated yield (% control)																											
2015 (12.1 t/ha)	99	97	92	94	-	101	-	99	-	100	99	99	96	-	-	-	102	102	100	99	99	97	97	96	2.3		
2016 (11.0 t/ha)	98	96	95	92	99	99	99	100	100	101	102	95	98	108	-	104	102	101	102	102	101	100	98	94	2.1		
2017 (11.1 t/ha)	101	98	96	97	99	99	99	99	102	101	99	97	95	104	104	104	101	101	100	98	97	97	97	96	2.2		
2018 (10.4 t/ha)	98	98	96	97	102	101	99	99	102	99	98	100	98	103	103	100	101	101	102	102	98	96	98	97	2.0		
2019 (11.3 t/ha)	97	96	100	95	102	100	101	100	103	102	100	99	99	105	104	103	101	101	99	99	99	94	98	94	2.1		
Rotational position																											
First cereal (11.6 t/ha)	98	97	96	95	101	100	99	100	102	101	100	98	97	105	103	103	101	101	100	100	99	97	97	96	2.1		
Second and more (9.8 t/ha)	99	98	93	94	100	100	100	98	100	100	100	98	96	104	[103]	101	102	102	100	101	99	97	[[99]]	95	3.5		
Sowing date (most trials were sown in October)																											
Early sown (before 25 Sept) (11.2 t/ha)	[[104]]	98	95	97	-	102	-	[[103]]	[103]	98	100	100	98	-	-	103	102	100	100	[98]	[96]	[98]	[96]	96	6.6		
Late sown (after 1 Nov) (9.6 t/ha)	97	97	94	95	[102]	100	[99]	100	[102]	100	97	98	99	[104]	[[107]]	[102]	101	[100]	99	100	97	100	[[99]]	[[97]]	4.2		
Soil type (about 50% of trials are on medium soils)																											
Light soils (11.1 t/ha)	97	97	94	92	103	99	99	100	101	102	99	97	98	105	[102]	101	101	101	98	99	98	98	99	95	4.1		
Heavy soils (11.3 t/ha)	100	97	97	97	101	101	101	99	103	100	99	98	97	105	104	103	101	101	102	100	98	98	96	96	2.6		
Agronomic features																											
Lodging % without PGR	3	1	2	3	3	17	1	2	1	3	5	2	10	7	8	4	5	4	3	10	18	4	6	2			
Lodging % with PGR	1	2	3	1	2	7	4	2	1	2	3	1	8	11	4	2	10	2	3	12	20	2	3	3			
Latest safe sowing date #	End Jan	End Feb	End Jan	Mid Feb	[End Jan]	End Jan	[End Jan]	Mid Feb	[End Feb]	End Jan	End Jan	End Jan	End Feb	[End Jan]	[[End Jan]]	[End Feb]	End Jan	End Jan	End Jan	End Jan	End Jan	End Feb	Mid Feb	End Jan			
Speed of development to growth stage 31 (days +/- average)																											
Early sown (Sept)	-3	-3	0	+1	[-5]	-8	[+6]	-1	[-4]	+5	-2	-4	-1	[-5]	[+10]	[-6]	+5	+1	-6	+9	-3	-3	+1	+2	9.0		
Med sown (Oct)	-4	-3	-1	+2	[-8]	-5	[+3]	-1	[-3]	0	+3	0	0	[0]	[+1]	[-3]	+3	-1	0	+4	-5	0	0	+4	7.1		
Late sown (Nov)	-2	-2	-1	0	[-2]	-3	[+1]	+3	[+1]	+3	+2	-2	+1	[-4]	[0]	[-1]	+1	-1	-1	+3	0	0	+2	+3	4.2		
Status in RL system																											
Year first listed	17	14	12	16	19	16	19	15	19	16	18	16	16	19	20	19	18	18	17	17	17	13	09	13			
RL status	-	-	-	-	P2	-	P2	*	P2	-	-	*	*	P2	P1	P2	-	-	*	-	*	*	*	*			

UK	= Recommended for the UK	C	= Yield control (for current table). For this table KWS Santiago was also a yield control but is no longer listed.	#	= Latest safe sowing date is the advised latest sowing time to give a sufficient cold period for flowering	ElsW	= Elsoms Wheat Ltd ( <a href="http://elsoms.com">elsoms.com</a> )	R2n	= RAGT, France ( <a href="http://ragt.co.uk">ragt.co.uk</a> )
E&W	= Recommended for the East and West regions					KWS	= KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )		RAGT = RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )
N	= Recommended for the North region	*	= Variety no longer under test in RL trials	P1	= First year of recommendation	Lim	= Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )		LSD = Least significant difference
PGR	= Plant Growth Regulator			P2	= Second year of recommendation	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
		[ ]	= Limited data	Els	= Elsoms Seeds ( <a href="http://elsoms.com">elsoms.com</a> )	Mom	= Momont, France ( <a href="http://kws-uk.com">kws-uk.com</a> )		
		[ [ ] ]	= Very limited data						

# Winter wheat 2020/21

## Supplementary data



	SY Inisor	KWS Kinetic	Gleam	RGT Gravity	KWS Kerrin	Shabras	Graham	KWS Crispin	Theodore	Dunston	Costello	Average LSD (5%)
End-use group	Hard Group 4											
Scope of recommendation	UK NEW	UK NEW	UK	UK	E&W	UK	UK	UK *	W NEW	UK *	UK	
Breeder/UK contact	SyP	KWS	SyP	R2n	KWS	SyP	SyP	KWS	DSV	ElsW	KWS	
UK contact	Syn	KWS	Syn	RAGT	KWS	Syn	Syn	KWS	DSV	Els	Sen	
Annual treated yield (% control)												
2015 (12.1 t/ha)	-	-	102	102	102	102	97	98	-	102	98	2.3
2016 (11.0 t/ha)	-	-	103	106	103	103	102	100	-	99	97	2.1
2017 (11.1 t/ha)	104	104	102	103	101	101	102	99	98	96	101	2.2
2018 (10.4 t/ha)	104	103	104	101	103	101	101	102	100	101	101	2.0
2019 (11.3 t/ha)	107	105	104	102	103	103	104	101	101	99	100	2.1
Rotational position												
First cereal (11.6 t/ha)	105	104	103	103	102	102	102	100	100	99	100	2.1
Second and more (9.8 t/ha)	[103]	[102]	104	103	103	102	100	98	[[99]]	100	98	3.5
Sowing date (most trials were sown in October)												
Early sown (before 25 Sept) (11.2 t/ha)	-	[100]	103	[100]	-	[[105]]	100	[[97]]	[[101]]	101	99	6.6
Late sown (after 1 Nov) (9.6 t/ha)	[[110]]	[[103]]	104	103	104	98	[100]	102	[[100]]	99	100	4.2
Soil type (about 50% of trials are on medium soils)												
Light soils (11.1 t/ha)	[108]	[104]	102	103	102	102	100	99	-	99	98	4.1
Heavy soils (11.3 t/ha)	104	105	103	102	101	101	102	101	101	100	100	2.6
Agronomic features												
Lodging % without PGR	11	4	4	5	6	9	5	9	6	2	2	
Lodging % with PGR	4	4	4	7	9	11	3	8	2	1	2	
Latest safe sowing date #	[[End Jan]]	[[End Jan]]	Mid Feb	End Jan	End Jan	End Jan	End Jan	Mid Feb	[[End Jan]]	End Jan	End Jan	
Speed of development to growth stage 31 (days +/- average)												
Early sown (Sept)	[-2]	[-4]	+8	+6	0	+2	+2	-5	[-3]	+5	-2	9.0
Med sown (Oct)	[0]	[+9]	+3	+3	+3	0	0	-6	[-4]	+2	-2	7.1
Late sown (Nov)	[+2]	[-2]	+4	-2	0	0	-3	-5	[0]	+1	-2	4.2
Status in RL system												
Year first listed	20	20	18	18	17	17	16	16	20	17	15	
RL status	P1	P1	-	-	-	-	-	*	P1	*	-	

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

UK = Recommended for the UK	[ ] = Limited data	DSV = DSV UK ( <a href="http://dsv-uk.co.uk">dsv-uk.co.uk</a> )	RAGT = RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )	LSD = Least significant difference
E&W = Recommended for the East and West regions	[ [ ] ] = Very limited data	Els = Elsoms Seeds ( <a href="http://elsoms.com">elsoms.com</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.
W = Recommended for the West region	# = Latest safe sowing date is the advised latest sowing time to give a sufficient cold period for flowering	ElsW = Elsoms Wheat Ltd ( <a href="http://elsoms.com">elsoms.com</a> )	SyP = Syngenta Participations AG ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )	
PGR = Plant Growth Regulator	P1 = First year of recommendation	KWS = KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	Syn = Syngenta UK Ltd ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )	
* = Variety no longer under test in RL trials		R2n = RAGT, France ( <a href="http://ragt.co.uk">ragt.co.uk</a> )		



# Winter wheat trials harvest 2020

## Candidate varieties



Candidate varieties																				
<div><div>AHDB</div><div>CANDIDATE</div></div>		Previous/proposed name	Variety ID	Yield treated (T)	Yield untreated (UT) (as % treated controls)	Lodging % (UT)	Lodging % (T)	Height (cm) (UT)	Maturity (days +/- Skyfall)	Mildew (1-9)	Yellow rust (1-9)	Brown rust (1-9)	Septoria tritici (1-9)	Eyespot (1-9)	OWBM resistance	Endosperm texture	Protein content %	Hagberg Falling Number	Specific weight (kg/hl)	UK contact
Control varieties																				
Elation	EW2082	2490	101	79	1	0	84	0	7	9	6	4	4	R	Soft	11.9	210	77.3	Elsoms Seeds	
KWS Siskin	KWS W243	2315	101	88	4	3	87	0	8	9	5	7	5	-	Hard	12.1	266	77.2	KWS UK	
KWS Barrel	KWS W239	2311	100	76	0	0	86	+1	7	9	5	4	5	R	Soft	11.5	239	77.3	KWS UK	
Skyfall	SJ3326	2138	98	79	1	1	87	0	6	5	8	6	6@	R	Hard	12.9	275	78.9	RAGT Seeds	
KWS Santiago	CPBT W165	1916	101	71	1	1	91	0	5	7	4	4	4	R	Hard	11.7	200	75.4	KWS UK	
Selected as potential bread-making varieties																				
LG Seeker	LGWU149	2815	102	86	1	0	84	+1	8	7	9	6	[8]@	-	Hard	11.9	238	75.6	Limagrain UK	
Selected as potential biscuit-making varieties																				
LG Prince	LGWU153	2838	103	88	2	0	86	+1	5	9	8	6	[5]	R	Soft	11.7	238	74.5	Limagrain UK	
LG Illuminate	LGWU144	2810	102	91	1	1	85	0	5	9	8	7	[4]	R	Soft	12.3	234	76.4	Limagrain UK	
LG Astronomer	LGWU143	2809	102	91	1	0	90	0	4	9	9	7	[5]	R	Soft	12.0	226	78.1	Limagrain UK	
EW6364	Merit	2797	Data cannot be published as variety has not completed National List testing															Elsoms Wheat Ltd		
LG Quasar	LGWU151	2836	101	85	2	1	92	+1	6	8	8	6	[3]	R	Soft	11.8	213	75.4	Limagrain UK	
RGT Galactus	RW41785	2850	101	86	2	3	91	+1	6	8	9	6	[5]	R	Soft	12.0	210	74.6	RAGT Seeds	
Mean of controls (t/ha)			11.0	11.0	-	-	-	303	-	-	-	-	-			-	-	-		
Overall mean			-	-	1	1	88	-	-	-	-	-	-			11.8	238	77.2		
LSD 5%			2.3	6.1	0.8	0.8	2.3	1.0	-	-	-	-	-			0.3	21.4	0.9		
Number of trials			31	8	9	9	11	9								10	9	10		

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

The 1-9 ratings are not comparable to those used on the Recommended List table

See the AHDB Recommended List for full data on control varieties

Candidate varieties will be considered for the 2021/22 AHDB Recommended List

To allow direct comparisons, the data presented for control varieties are taken from trials in which the candidates were grown

For latest information, visit [ahdb.org.uk/rl](https://ahdb.org.uk/rl)

These summaries are derived from National List and British Society of Plant Breeders (BSPB) trials. Acknowledgement is made to the Animal and Plant Health Agency (APHA) and BSPB for the use of the data

T = Data from trials treated with fungicide and Plant Growth Regulator (PGR)

UT = Data from trials without fungicide or PGR  
R = Believed to be resistant to orange wheat blossom midge (OWBM)

@ = Believed to carry the *Pch1* Rendezvous resistance gene

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

# Winter wheat trials harvest 2020

## Candidate varieties



Candidate varieties																							
<div><div>AHDB</div><div>CANDIDATE</div></div>		Previous/proposed name	Variety ID	Yield treated (T)	Yield untreated (UT) (as % treated controls)	Lodging % (UT)	Lodging % (T)	Height (cm) (UT)	Maturity (days +/- Skyfall)	Mildew (1-9)	Yellow rust (1-9)	Brown rust (1-9)	Septoria tritici (1-9)	Eyespot (1-9)	OWBM resistance	Endosperm texture	Protein content %	Hagberg Falling Number	Specific weight (kg/hl)	UK contact			
Control varieties																							
Elation	EW2082	2490	101	79	1	0	84	0	7	9	6	4	4	R	Soft	11.9	210	77.3	Elsoms Seeds				
KWS Siskin	KWS W243	2315	101	88	4	3	87	0	8	9	5	7	5	-	Hard	12.1	266	77.2	KWS UK				
KWS Barrel	KWS W239	2311	100	76	0	0	86	+1	7	9	5	4	5	R	Soft	11.5	239	77.3	KWS UK				
Skyfall	SJ3326	2138	98	79	1	1	87	0	6	5	8	6	6@	R	Hard	12.9	275	78.9	RAGT Seeds				
KWS Santiago	CPBT W165	1916	101	71	1	1	91	0	5	7	4	4	4	R	Hard	11.7	200	75.4	KWS UK				
Selected as potential feed varieties																							
LG Tapestry	LGWU148	2814	102	88	1	1	88	0	5	9	8	6	[2]	R	Soft	11.3	174	76.3	Limagrain UK				
KWS Plectrum	KWSW358	2856	102	77	1	0	81	0	5	7	6	6	[3]	R	Soft	11.4	172	75.7	KWS UK				
RGT Quicksilver	RW41783	2849	102	89	2	1	90	+2	5	9	8	7	[3]	R	Soft	11.6	211	73.8	RAGT Seeds				
BAW55	Swallow	2823	Data cannot be published as variety has not completed National List testing											Senova									
KWS Cranium	KWSW360	2858	103	81	0	2	90	+2	4	9	5	6	[5]	R	Hard	11.5	256	75.3	KWS UK				
SY Clipper	SY117710	2828	Data cannot be published as variety has not completed National List testing											Syngenta UK Ltd									
BAW57	Banquo	2825	Data cannot be published as variety has not completed National List testing											Senova									
EW5475B	Astound	2796	Data cannot be published as variety has not completed National List testing											Elsoms Wheat Ltd									
RGT Wolverine	RW41740	2846	102	81	1	1	90	+1	5	7	8	6	[6]	-	Hard	11.3	254	76.3	RAGT Seeds				
RGT Silversurfer	RW41789	2851	101	87	3	3	91	0	5	9	7	7	[4]	R	Hard	11.7	245	76.1	RAGT Seeds				
Mean of controls (t/ha)			11.0	11.0	-	-	-	303	-	-	-	-	-				-	-	-				
Overall mean			-	-	1	1	88	-	-	-	-	-	-				11.8	238	77.2				
LSD 5%			2.3	6.1	0.8	0.8	2.3	1.0	-	-	-	-	-				0.3	21.4	0.9				
Number of trials			31	8	9	9	11	9												10	9	10	

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

The 1-9 ratings are not comparable to those used on the Recommended List table

See the AHDB Recommended List for full data on control varieties

Candidate varieties will be considered for the 2021/22 AHDB Recommended List

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For latest information, visit [ahdb.org.uk/rl](https://ahdb.org.uk/rl)

These summaries are derived from National List and British Society of Plant Breeders (BSPB) trials. Acknowledgement is made to the Animal and Plant Health Agency (APHA) and BSPB for the use of the data

T = Data from trials treated with fungicide and Plant Growth Regulator (PGR)

UT = Data from trials without fungicide or PGR  
R = Believed to be resistant to orange wheat blossom midge (OWBM)

@ = Believed to carry the *Pch1* Rendezvous resistance gene

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

# Winter wheat varieties grown in RL trials in 2019 but not added to the AHDB Recommended List



	Control varieties					Other varieties		
	Skyfall	KWS Siskin	KWS Santiago	KWS Barrel	Elation	RGT Lantern	KWS Parkin	Average LSD (5%)
<b>Fungicide-treated grain yield (% treated control)</b>								
United Kingdom (11.2 t/ha)	97	101	101	100	101	102	102	2.1
East region (11.1 t/ha)	97	101	101	100	101	102	102	2.3
West region (11.2 t/ha)	97	101	101	100	101	103	101	2.7
North region (11.3 t/ha)	96	98	101	104	101	[100]	[101]	3.1
<b>Untreated grain yield (% treated control)</b>								
United Kingdom (11.2 t/ha)	78	83	67	72	77	78	81	4.9
<b>Grain quality</b>								
Endosperm texture	Hard	Hard	Hard	Soft	Soft	Hard	Hard	
Protein content (%)	12.4	11.9	11.5	11.3	11.6	11.2	11.3	0.2
Protein content (%) - Milling spec	13.3	12.6	12.3	12.0	12.3	11.9	11.9	0.3
Hagberg Falling Number	278	286	185	224	206	271	259	26.8
Specific weight (kg/hl)	78.3	77.2	75.5	77.1	77.4	75.7	76.3	0.7
Chopin alveograph W	-	164	-	96	94	-	-	19.8
Chopin alveograph P/L	-	0.5	-	0.4	0.3	-	-	0.1
<b>Agronomic features</b>								
Resistance to lodging without PGR (1–9)	8	6	7	7	7	7	8	0.6
Resistance to lodging with PGR (1–9)	8	7	8	8	8	8	8	0.5
Height without PGR (cm)	83	84	86	83	82	83	79	1.7
Ripening (days +/- Skyfall, -ve = earlier)	0	0	+1	+1	+1	+2	-1	0.6
Resistance to sprouting (1–9)	5	5	6	6	[6]	[7]	[6]	0.8
<b>Disease resistance</b>								
Mildew (1–9)	6	8	5	7	7	5	6	1.0
Yellow rust (1–9) - see note on right	5	9	7	9	9	7	9	0.7
Brown rust (1–9) - see note on right	8	5	4	5	6	6	5	1.1
Septoria nodorum (1–9)	[6]	[6]	[5]	[6]	[6]	-	-	0.9
Septoria tritici (1–9)	5.8	6.6	4.4	4.3	4.3	5.7	5.5	0.8
Eyespot (1–9)	6@	5	4	5	4	-	-	1.7
Fusarium ear blight (1–9)	7	5	6	6	6	6	6	0.5
Orange wheat blossom midge	R	-	R	R	R	R	-	

**Yellow and brown rust ratings**  
During 2019 higher than expected levels of yellow and brown rust were seen in some varieties in some trials. Careful analysis of the 2019 data from RL trials did not reveal dramatic changes in average disease ratings. These are national average ratings and it is not yet clear if the reported cases of high yellow and brown rust disease levels in 2019 indicate the initial emergence of new rust races, or exceptionally high disease pressure at some sites. Given the highly dynamic nature of the yellow and brown rust populations in the UK in recent years, all varieties should be closely monitored for rusts, as local rust populations may differ from the general UK population and may be more or less virulent on a variety than the RL rating suggests.

This table should be read in conjunction with the AHDB Recommended List of winter wheat varieties for 2020/21.

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.

[ ] = Limited data  
PGR = Plant Growth Regulator

@ = 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



# Spring wheat (for spring sowing) 2020



	Mulika	KWS Cochise	KWS Giraffe	KWS Chilham	KWS Talisker	Hexham	KWS Alderon	KWS Kilburn	Average LSD (5%)	Not added to Recommended List
End-use group	nabim Group 1	nabim Group 2			Hard Group 4					
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK		Not added to RL
	C	C	NEW				C			
UK yield as % control (spring sowing)										
Fungicide-treated (7.2 t/ha)	94	105	103	99	104	103	101	101	3.0	101
Untreated (% treated control) (7.2 t/ha)	[79]	[82]	-	[85]	[89]	[93]	[83]	[80]	8.1	-
UK yield as % control (autumn sowing)										
Fungicide-treated (9.2 t/ha)	96	103	[104]	101	102	106	101	[103]	5.5	[99]
Grain quality (spring sowing)										
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard		Hard
Protein content (%)	13.2	12.9	13.3	12.7	12.2	12.4	12.8	13.0	0.3	13.0
Hagberg Falling Number	307	226	271	314	271	271	315	264	25	289
Specific weight (kg/hl)	77.1	79.1	79.8	78.2	79.0	77.7	77.3	76.2	0.8	75.8
Agronomic features (spring sowing)										
Resistance to lodging with PGR ∞	-	-	-	-	-	-	-	-	-	-
Straw height without PGR (cm)	82	84	80	78	84	83	78	85	2.1	77
Ripening (+/- Mulika, -ve = earlier)	0	+1	0	0	+1	+2	+2	+3	1.5	+1
Resistance to sprouting ∞	-	-	-	-	-	-	-	-	-	-
Disease resistance										
Mildew (1-9)	6	8	8	7	8	7	7	7	1.9	8
Yellow rust (1-9)	7	5	6	7	9	9	6	5	1.1	8
Brown rust (1-9)	5	7	5	4	3	5	7	[8]	2.0	8
Septoria tritici (1-9)	6	6	6	7	6	7	6	6	0.9	6
Orange wheat blossom midge	R	R	-	R	-	-	-	-	-	-
Annual treated yield (% control, spring sowing)										
2015 (8.2 t/ha)	[95]	[102]	-	[98]	-	-	[103]	[99]	6.5	-
2016 (8.5 t/ha)	[93]	[102]	-	[99]	[104]	[107]	[106]	[103]	8.1	-
2017 (7.3 t/ha)	93	107	[103]	102	[105]	[103]	100	102	4.1	[104]
2018 (5.5 t/ha)	[95]	[107]	[107]	[99]	[105]	[100]	[98]	[100]	5.4	[101]
2019 (6.9 t/ha)	94	107	102	98	105	105	99	100	3.9	99
Breeder/UK contact										
Breeder	BA	KWS	KWS	KWS	KWS	Sen	KWS	KWS		KWS
UK contact	Sen	KWS	KWS	KWS	KWS	Sen	KWS	KWS		Sen
Status in RL system										
Year first listed	11	17	20	17	19	19	12	14		
RL status	-	-	P1	-	P2	P2	-	-		

Varieties no longer listed: KWS Willow. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

UK = Recommended for the UK  
C = Yield control (for current table)  
[] = Limited data  
PGR = Plant Growth Regulator

∞ = No data available  
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))

Sen = Senova ([senova.uk.com](http://senova.uk.com))  
LSD = Least significant difference  
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

# Spring wheat (for spring sowing) trials harvest 2020

## Candidate varieties



AHDB

CANDIDATE

Previous/proposed name	Variety ID	Yield (spring sown) treated (T)	Height (cm)	Mildew (1–9)	Yellow rust (1–9)	Brown rust (1–9)	Septoria tritici (1–9)	OWBM resistance	Endosperm texture	Protein content %	Hagberg Falling Number	Specific weight (kg/hl)	UK contact	
Control varieties														
KWS Cochise	KWSW270	2476	107	76	8	5	7	6	R	Hard	13.1	218	78.2	KWS UK
KWS Alderon	KWS-W185	2024	99	71	7	6	7	6	-	Hard	13.4	329	76.0	KWS UK
Mulika	BA W4	1960	95	76	6	7	5	6	R	Hard	13.5	300	76.2	Senova
Selected as potential bread-making varieties														
WPB Arcade	WPB13SD930-01	2876	[105]	77	9	4	9	-	-	Hard	[12.7]	299	[78.0]	LS Plant Breeding
Selected as potential feed varieties														
WPB Escape	WPB13SD930-05	2877	[108]	72	8	8	6	-	-	Hard	[12.5]	254	[76.1]	LS Plant Breeding
Mean of controls (t/ha)			6.3	-	-	-	-	-	-	-	-	-	-	
Overall mean			-	74.8	-	-	-	-	-	13.0	282	77.1		
LSD 5%			4.0	3.6	-	-	-	-	-	0.4	28.6	1.0		
Number of trials (for candidate varieties)			9	6	-	-	-	-	-	9	9	9		

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). The 1–9 ratings are not comparable to those used on the Recommended List table.

See the AHDB Recommended List for full data on control varieties.

Candidate varieties will be considered for the 2021 AHDB Recommended List.

These summaries are derived from National List and BSPB trials. Acknowledgement is made to APHA and BSPB for the use of the data.

T = Data from trials treated with fungicide and Plant Growth Regulator (PGR)  
 [ ] = Limited data

R = Believed to be resistant to orange wheat blossom midge (OWBM)

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

## 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 2 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.

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# Winter barley 2020/21

## Market options, yield and grain quality



Electrum Craft SY Venture KWS Hawking LG Mountain KWS Gimlet Jordan LG Flynn KWS Orwell Valerie Surge KWS Creswell KWS Tower KWS Glacier California KWS Cassia Belmont \$ SY Kingsbarn \$ SY Baracooda \$ Bazooka \$ Belfry \$ KWS Astaire Funky Libra \$ 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	N	UK	UK	W	UK	UK	UK	UK	UK	UK	UK	UK	UK	
	C	*C		NEW			NEW		C				*				C		*		C				
Fungicide-treated grain yield (% treated control)																									
United Kingdom (10.0 t/ha)	97	96	92	104	104	103	103	102	102	101	101	100	99	99	99	97	108	108	108	106	106	105	104	103	2.3
East region (9.9 t/ha)	98	96	93	106	105	106	105	103	102	102	102	99	99	98	99	97	108	108	107	107	105	103	103	103	3.0
West region (10.2 t/ha)	97	95	91	102	101	101	103	101	102	[100]	101	100	99	98	99	97	107	107	108	106	107	108	106	104	3.5
North region (9.9 t/ha)	95	97	94	102	105	102	101	102	101	[101]	98	102	101	100	[97]	98	107	107	107	105	105	103	104	103	3.6
Untreated grain yield (% treated control)																									
United Kingdom (10.0 t/ha)	79	77	67	83	83	83	89	82	80	86	87	72	73	78	79	81	77	88	88	87	91	89	89	83	4.1
Main market options																									
MBC malting approval for brewing use	P	F	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Grain quality																									
Specific weight (kg/hl)	69.3	69.4	70.0	68.5	69.1	68.3	68.9	70.2	67.9	70.2	69.3	68.0	67.4	69.1	68.1	71.2	68.5	69.8	68.8	68.9	68.2	65.7	68.9	70.8	0.9
Screenings (% through 2.25 mm)	2.2	1.9	3.5	2.7	2.4	2.5	1.9	1.7	2.0	0.8	1.9	2.1	2.2	2.7	1.9	1.6	2.5	1.8	2.0	2.4	2.6	2.4	4.2	2.1	0.7
Screenings (% through 2.5 mm)	6.7	6.4	11.7	8.3	8.0	7.9	5.8	5.2	6.3	2.0	6.0	7.7	7.4	9.4	6.6	5.3	9.5	7.0	7.3	8.8	9.9	8.3	16.4	8.1	2.1
Nitrogen content (%)	1.68	1.66	1.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	[1.57]	-	0.1	
Status in RL system																									
Year first listed	18	16	12	20	19	19	20	19	16	19	16	17	14	13	13	10	18	19	19	16	16	18	17	18	

Varieties no longer listed: KWS Infinity and Sunningdale.

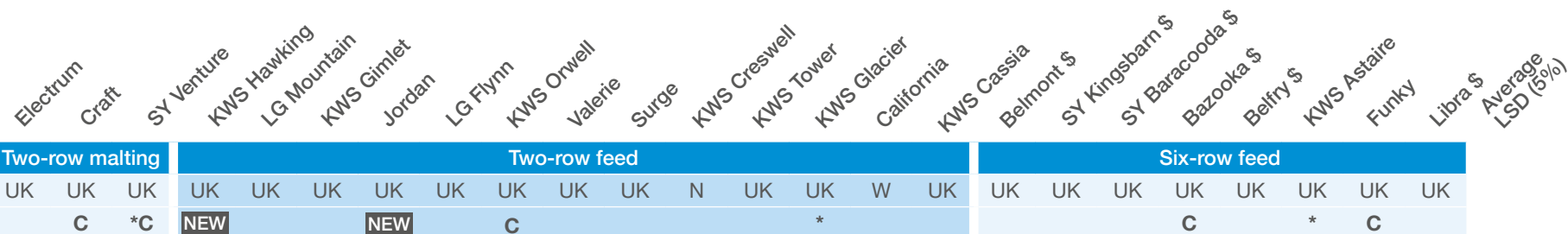
Comparisons of varieties across regions are not valid. See page 3 for information on regional yields.

UK = Recommended for the UK  
W = Recommended for the West region  
N = Recommended for the North region  
\* = Variety no longer under test in RL trials

C = Yield control (for current table).  
\$ = Hybrid variety  
[] = Limited data  
F = Full MBC approval

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

## Yield, agronomy and disease resistance



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.

\$ = Hybrid variety  
[ ] = Limited data  
PGR = Plant Growth Regulator

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 2020/21

## Supplementary data



<div><div>AHDB</div><div>RECOMMENDED</div></div>			Electrum	Craft	SY Venture	KWS Hawking	LG Mountain	KWS Gimlet	Jordan	LG Flynn	KWS Orwell	Valerie	Surge	KWS Creswell	KWS Tower	KWS Glacier	California	KWS Cassia	Belmont \$	SY Kingsbarn \$	SY Baracoda \$	Bazooka \$	Belfry \$	KWS Astaire	Funky	Libra \$	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	N	UK	UK	W	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK		
	C	*C		NEW			NEW		C				*				C		*		C						
Breeder/UK contact																											
Breeder	SyP	SyP	SyP	KWS	LimEur	KWS	Ack	LimEur	KWS	Bre	SyP	KWS	KWS	KWS	Lim	KWS	SyP	SyP	SyP	SyP	SyP	KWS	KWSMR	SyP			
UK contact	Syn	Syn	Syn	KWS	Lim	KWS	ElsAck	Lim	KWS	Sen	Syn	KWS	KWS	KWS	Lim	KWS	Syn	Syn	Syn	Syn	Syn	KWS	KWS	Syn			
Annual treated yield (% control)																											
2015 (10.5 t/ha)	96	95	93	-	-	-	-	-	101	-	99	100	100	100	96	96	107	-	-	107	105	104	105	103	-		
2016 (9.5 t/ha)	97	95	92	-	104	102	-	102	102	101	101	100	100	99	99	98	109	107	108	107	106	106	104	103	-		
2017 (9.9 t/ha)	95	95	91	103	103	104	103	101	101	101	100	99	98	97	100	97	107	107	107	106	106	105	105	104	-		
2018 (10.2 t/ha)	97	97	95	104	104	102	102	103	101	102	100	101	102	100	98	98	108	107	108	104	105	104	103	103	-		
2019 (9.9 t/ha)	98	96	92	103	104	104	103	102	101	-	102	100	99	100	98	98	107	108	108	106	106	105	105	104	-		
Soil type (about 50% of trials are medium soils)																											
Light soils (9.9 t/ha)	96	96	94	102	104	102	102	102	100	101	100	101	100	100	97	97	106	106	105	105	104	103	104	102	3.2		
Heavy soils (9.8 t/ha)	97	94	93	106	107	104	103	104	102	[101]	102	99	99	99	100	97	107	108	106	107	109	106	104	105	4.3		
Agronomic characteristics																											
Lodging without PGR (%)	7	3	4	8	13	16	12	7	2	4	4	7	3	8	3	4	9	7	6	5	4	2	1	7	-		
Lodging with PGR (%)	4	2	3	2	6	6	6	4	2	1	3	4	3	8	2	3	9	2	5	4	2	3	2	4	-		
Malting quality																											
Hot water extract (l deg/kg)	305.9	307.8	305.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	[294.9]	-	3.7		
Status in RL system																											
Year first listed	18	16	12	20	19	19	20	19	16	19	16	17	14	13	13	10	18	19	19	16	16	18	17	18			
RL status	-	-	*	P1	P2	P2	P1	P2	-	P2	-	-	-	*	-	-	-	P2	P2	-	-	*	-	-			

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

UK = Recommended for the UK	\$ = Hybrid variety	KWS = KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	Syn = Syngenta UK Ltd ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )	LSD = Least significant difference
W = Recommended for the West region	[] = Limited data	KWSMR = KWS Momont Recherche ( <a href="http://kws-uk.com">kws-uk.com</a> )	SyP = Syngenta Participations AG ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
N = Recommended for the North region	P1 = First year of recommendation	Lim = Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )		
C = Yield control (for current table)	P2 = Second year of recommendation	LimEur = Limagrain Europe SA ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )		
* = Variety no longer under test in RL trials	Ack = Ackermann Saatzeit GmbH	Sen = Senova ( <a href="http://senova.uk.com">senova.uk.com</a> )		
PGR = Plant Growth Regulator	Bre = Saatzeit Josef Breun, Germany			
	ElsAck = Elsoms Ackermann Barley			



# Winter barley varieties grown in RL trials in 2019 but not added to the AHDB Recommended List



	Control varieties					Other varieties				
	Craft	SY Venture	KWS Orwell	Bazooka \$	Funky	Zophia	Fay	KWS Patriot	SY Kingston \$	Average LSD (5%)
Fungicide-treated grain yield (% treated control)						Two-row malting		Two-row feed	Six-row feed	
United Kingdom (10.0 t/ha)	96	92	102	106	104	96	96	103	107	2.3
East region (9.9 t/ha)	96	93	102	107	103	97	96	103	106	3.0
West region (10.2 t/ha)	95	91	102	106	106	96	97	103	108	3.5
North region (9.9 t/ha)	97	94	101	105	104	94	95	104	107	3.6
Untreated grain yield (% treated control)										
United Kingdom (10.0 t/ha)	77	67	80	87	89	83	80	84	91	4.1
Main market options										
MBC malting approval for brewing use	F	F	-	-	-	T	T	-	-	
Grain quality										
Specific weight (kg/hl)	69.4	70.0	67.9	68.9	68.9	69.5	68.2	68.6	69.6	0.9
Screenings (% through 2.25 mm)	1.9	3.5	2.0	2.4	4.2	2.1	2.0	2.0	2.4	0.7
Screenings (% through 2.5 mm)	6.4	11.7	6.3	8.8	16.4	6.5	6.2	6.4	9.3	2.1
Nitrogen content (%)	1.66	1.64	-	-	[1.57]	1.74	1.77	-	-	0.1
Agronomic features										
Resistance to lodging (1–9)	8	7	8	7	8	7	7	7	7	-
Straw height without PGR (cm)	89	86	86	114	93	[90]	[84]	[92]	[118]	4.6
Straw height with PGR (cm)	87	82	84	107	90	87	81	89	105	2.5
Ripening (+/- KWS Orwell, -ve = earlier)	0	0	0	-1	-2	-1	-2	-1	-2	1.0
Disease resistance										
Mildew (1–9)	6	6	3	5	5	6	6	4	7	0.8
Yellow rust (1–9)	[8]	[8]	[7]	[9]	[9]	-	-	-	-	2.9
Brown rust (1–9)	6	6	7	5	8	7	7	6	6	0.9
Rhynchosporium (1–9)	6	5	6	6	7	6	5	6	5	1.4
Net blotch (1–9)	6	4	5	6	5	6	5	5	5	1.2
BaYMV	R	R	R	R	R	R	R	R	R	-

This table should be read in conjunction with the AHDB Recommended List of winter barley varieties for 2020/21. 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.

\$ = Hybrid variety  
[ ] = Limited data  
F = Full MBC approval

T = Under test for MBC approval  
PGR = Plant Growth Regulator  
R = Resistant to barley mild mosaic virus (BaMMV) and to barley yellow mosaic virus (BaYMV) strain 1

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 trials harvest 2020

## Candidate varieties



# Winter barley trials harvest 2020

## Candidate varieties



Previous/proposed name	Variety ID	Yield treated (T)	Yield untreated (UT) (% treated controls)	Lodging % (UT)	Lodging % (T)	Height (cm)	Maturity (days +/- KWS Orwell)	Mildew (1-9)	Yellow rust (1-9)	Brown rust (1-9)	Rhynchosporium (1-9)	Net blotch (1-9)	BaYMV	Variety type	Specific weight (kg/hl)	UK contact	
Control varieties																	
Funky	MH08KU37	2807	104	88	1	2	95	-2	5	[9]	8	7	5	R	6-row	69.8	KWS UK
Craft	SY212-128	2743	97	77	1	2	91	0	6	[8]	6	6	6	R	2-row	70.5	Syngenta UK Ltd
Bazooka	SY212-118	2737	105	84	6	5	112	0	5	[9]	5	6	6	R	6-row hybrid	70.4	Syngenta UK Ltd
KWS Orwell	KWSB111	2728	102	79	1	1	89	0	3	[7]	7	6	5	R	2-row	68.5	KWS UK
SY Venture	SYN 208-57	2443	93	64	2	2	87	0	6	[8]	6	5	4	R	2-row	71.0	Syngenta UK Ltd
Selected as potential malting varieties																	
AC12/245/1	Chester	3146	Data cannot be published as variety has not completed National List testing												Elsoms Ackermann Barley		
Selected as potential feed varieties																	
Bordeaux	NOS911.016-53	3132	Data cannot be published as variety has not completed National List testing												Senova		
KWS Tardis	KWSB134	3120	Data cannot be published as variety has not completed National List testing												KWS UK		
AC13/084/42	Bolton	3147	Data cannot be published as variety has not completed National List testing												Elsoms Ackermann Barley		
Pixie	BR12083P2	3131	Data cannot be published as variety has not completed National List testing												Senova		
NORD13115/19	SU Laubella	3144	Data cannot be published as variety has not completed National List testing												Saaten Union UK		
KWS Oasis	KWSB133	3119	105	[82]	4	2	[90]	0	5	-	6	6	8	R	2-row	69.6	KWS UK
Paloma	SEBC10	3127	Data cannot be published as variety has not completed National List testing												Senova		
SY Thunderbolt	SY217542	3116	109	[91]	21	8	[111]	-1	8	-	6	6	6	R	6-row hybrid	70.8	Syngenta UK Ltd
SY Armadillo	SY217581	3115	107	[85]	2	4	[112]	0	5	-	5	7	8	R	6-row hybrid	69.5	Syngenta UK Ltd
Mean of controls (t/ha)			10.2	10.2	-	-	-	285	-	-	-	-	-				-
Overall mean			-	-	4.9	2.6	96	-	-	-	-	-	-				69.7
LSD 5%			3.9	6.8	5.8	2.9	6.0	1.9	-	-	-	-	-				0.8
Number of trials (for candidate varieties)			19	8	2	5	4	9	-	-	-	-	-				10

On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). The 1-9 ratings are not comparable to those used on the Recommended List table. See the AHDB Recommended List for full data on control varieties. Candidate varieties will be considered for the 2021/22 AHDB Recommended List. Yellow rust (1-9) ratings are not presented as there were no ratings for the candidate varieties. For latest information, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl). These summaries are derived from National List and BSPB trials. Acknowledgement is made to APHA and BSPB for the use of the data.

T = Data from trials treated with fungicide and PGR  
UT = Data from trials without fungicide or PGR

[ ] = Limited data

R = Resistant to barley mild mosaic virus (BaMMV) and to barley yellow mosaic virus (BaYMV) strain 1

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

# Spring barley 2020

## Market options, yield and grain quality



Not added to Recommended List

	SY Splendor	Firefoxx	Cosmopolitan	SY Tungsten	LG Diablo	Laureate	RGT Planet	RGT Asteroid	Iconic	KWS Sassy	Sienna	Propino	Fairing	Concerto	Fairway	Prospect	Average LSD (5%)	RGT Slipstream	Barbarella	Jaspa
End-use group	Malting varieties															Feed varieties		Malting varieties	Feed varieties	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	W	UK	UK	UK	Sp	UK	UK	UK	UK	Not added to RL	Not added to RL	
	NEW	NEW		NEW		C	C		NEW			C		C	NEW	NEW		-	-	-
Fungicide-treated grain yield (% treated control)																				
United Kingdom (7.5 t/ha)	107	106	105	105	105	104	103	103	102	101	101	98	96	95	106	105	2.3	104	103	103
East region (7.7 t/ha)	105	105	105	103	106	105	103	104	101	99	98	96	96	95	106	108	3.5	104	103	102
West region (7.4 t/ha)	[106]	[106]	105	[105]	102	104	104	102	[103]	100	100	98	97	96	[105]	[104]	3.8	[105]	[101]	[103]
North region (7.5 t/ha)	107	107	106	107	107	104	103	102	103	103	102	98	95	93	106	105	3.1	104	105	104
Main market options																				
MBC malting approval for brewing use	T	-	P	T	P	F	F	P	T	N	-	F	-	F	-	-		T	T	-
MBC malting approval for malt distilling use	-	T	-	T	F	F	N	P	-	F	F	N	-	F	-	-		-	-	-
MBC malting approval for grain distilling use	-	-	-	-	-	-	N	P	-	-	N	N	F	N	-	-		-	-	-
Grain quality																				
Specific weight (kg/hl)	68.1	66.4	66.2	67.7	67.1	66.5	67.8	68.3	67.2	68.4	70.4	68.2	68.3	68.8	65.9	67.6	0.7	65.3	65.4	68.2
Screenings (% through 2.25 mm)	[1.5]	[1.6]	1.6	[1.8]	1.4	1.5	1.4	1.2	[1.7]	1.1	1.6	0.9	1.1	1.2	[1.0]	[1.9]	0.5	[1.8]	[2.0]	[1.7]
Screenings (% through 2.5 mm)	[3.9]	[3.7]	3.6	[4.7]	3.4	3.6	3.6	3.1	[4.1]	2.6	3.8	2.1	2.6	2.9	[2.4]	[4.5]	1.1	[4.4]	[4.3]	[4.0]
Nitrogen content (%)	1.47	1.46	1.44	1.43	1.44	1.48	1.50	1.48	1.45	1.50	[1.51]	1.56	1.59	1.52	-	1.51	0.05	1.40	1.45	-
Status in RL system																				
Year first listed	20	20	19	20	18	16	15	18	20	16	15	10	16	09	20	20				

**Varieties no longer listed:** Chanson, Hacker, KWS Irina, LG Tomahawk, Olympus, Ovation and Scholar.  
 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  
 W = Recommended for the West region  
 Sp = Fairing is suitable for the production of malt for grain distilling

C = Yield control (for current table). For this table KWS Irina was also a yield control but is no longer listed.  
 [] = Limited data  
 F = Full MBC approval

N = Not approved by MBC for this segment  
 P = Provisional MBC approval  
 T = Under test for MBC approval in this segment

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

# Spring barley 2020

Yield, agronomy and disease resistance



Not added to Recommended List

	SY Splendor	Firefoxx	Cosmopolitan	SY Tungsten	LG Diablo	Laureate	RGT Planet	RGT Asteroid	Iconic	KWS Sassy	Sienna	Propino	Fairing	Concerto	Fairway	Prospect	Average LSD (5%)	RGT Slipstream	Barbarella	Jaspa
End-use group	Malting varieties														Feed varieties		Malting varieties		Feed varieties	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	W	UK	UK	UK	Sp	UK	UK	UK	Not added to RL	Not added to RL	Not added to RL	Not added to RL
	NEW	NEW		NEW		C	C		NEW			C		C	NEW	NEW	-	-	-	-
Fungicide-treated grain yield (% treated control)																				
United Kingdom (7.5 t/ha)	107	106	105	105	105	104	103	103	102	101	101	98	96	95	106	105	2.3	104	103	103
East region (7.7 t/ha)	105	105	105	103	106	105	103	104	101	99	98	96	96	95	106	108	3.5	104	103	102
West region (7.4 t/ha)	[106]	[106]	105	[105]	102	104	104	102	[103]	100	100	98	97	96	[105]	[104]	3.8	[105]	[101]	[103]
North region (7.5 t/ha)	107	107	106	107	107	104	103	102	103	103	102	98	95	93	106	105	3.1	104	105	104
Untreated grain yield (% treated control)																				
United Kingdom (7.5 t/ha)	95	95	97	95	97	97	95	97	96	94	93	86	87	87	95	97	3.4	91	94	93
Agronomic features																				
Resistance to lodging (no PGR) (1–9)	[7]	[7]	7	[7]	7	7	7	7	[7]	6	7	7	7	7	[8]	[7]	0.5	[8]	[7]	[7]
Straw height (cm)	73	71	70	72	73	71	73	73	76	78	77	75	72	77	71	71	1.5	68	75	70
Ripening (+/- Concerto, -ve = earlier)	+1	0	0	+1	+1	+1	0	+1	0	0	+1	-1	-2	0	-1	0	0.8	-1	0	0
Resistance to brackling (1–9)	9	8	7	8	8	8	8	8	8	6	7	8	8	8	9	9	0.8	9	8	9
Disease resistance																				
Mildew (1–9)	9	9	9	9	9	9	9	9	9	9	9	6	9	9	9	9	0.7	9	9	9
Yellow rust (1–9)	-	-	-	-	-	[5]	[4]	-	-	[6]	[6]	[4]	[9]	[8]	-	-	2.8	-	-	-
Brown rust (1–9)	4	4	4	4	5	5	5	5	5	5	5	5	4	5	4	4	1.5	4	4	3
Rhynchosporium (1–9)	[4]	[5]	6	[4]	5	6	5	4	[6]	6	5	5	6	4	[3]	[6]	2.3	[3]	[3]	[5]

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  
W = Recommended for the West region  
PGR = Plant Growth Regulator

Sp = Fairing is suitable for the production of malt for grain distilling  
C = Yield control (for current table). For this table, KWS Irina was also a yield control but is no longer listed

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



# Spring barley 2020

## Supplementary data



Not added to Recommended List

Supplementary data

AHDB

RECOMMENDED

	SY Splendor	Firefoxx	Cosmopolitan	SY Tungsten	LG Diablo	Laureate	RGT Planet	RGT Asteroid	Iconic	KWS Sassy	Sienna	Propino	Fairing	Concerto	Fairway	Prospect	Average LSD (5%)	RGT Slipstream	Barbarella	Jaspa		
End-use group	Malting varieties															Feed varieties			Malting varieties		Feed varieties	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	W	UK	UK	UK	Sp	UK	UK	UK	UK	Not added to RL	Not added to RL			
	NEW	NEW		NEW		C	C		NEW			C		C	NEW	NEW		-	-			
Breeder/UK contact																						
Breeder	-	Ack	Sej	-	LimEur	SyP	RAGT	R2n	Sec	KWS	LimEur	SyP	SyP	Lim	NS	Sej		RAGT	Ack	Nord		
UK contact	Syn	ElsAck	Sen	Syn	Lim	Syn	RAGT	RAGT	Agr	KWS	Lim	Syn	Syn	Lim	Sen	Sen		RAGT	ElsAck	SU		
Annual treated yield (% control)																						
2015 (8.6 t/ha)	-	-	-	-	105	104	103	101	-	101	99	97	95	94	-	-	-	-	-	-		
2016 (7.6 t/ha)	-	-	105	-	104	103	104	103	-	101	101	99	97	93	-	-	-	-	-	-		
2017 (7.3 t/ha)	107	106	106	105	106	103	103	103	104	101	101	98	95	96	106	106	-	105	103	103		
2018 (6.6 t/ha)	107	107	107	107	105	105	101	103	103	100	99	98	97	96	107	105	-	105	104	105		
2019 (7.6 t/ha)	107	106	105	104	105	105	104	103	100	101	101	96	96	96	107	106	-	104	103	102		
Malting quality																						
Hot water extract (l deg/kg)	315.7	315.4	314.4	316.8	315.5	315.4	315.2	315.0	316.7	315.7	315.7	312.7	310.9	315.9	[314.0]	314.3	1.8	315.7	315.3	[312.9]		
Status in RL system																						
Year first listed	20	20	19	20	18	16	15	18	20	16	15	10	16	09	20	20		-	-	-		
RL Status	P1	P1	P2	P1	-	-	-	-	P1	-	-	-	-	-	P1	P1		-	-	-		

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

UK = Recommended for the UK	Ack = Ackermann Saatzzucht GmbH (sz-ackermann.de)	R2n = RAGT, France (ragt.co.uk)	LSD = Least significant difference.
W = Recommended for the West region	Agr = Agrii (agrii.co.uk)	RAGT = RAGT Seeds (ragt.co.uk)	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
Sp = Fairing is suitable for the production of malt for grain distilling	ElsAck = Elsoms Ackermann Barley	Sec = Secobra, France (secobra.com)	
C = Yield control (for current table). For this table KWS Irina was also a yield control but is no longer listed	KWS = KWS UK (kws-uk.com)	Sej = Sejet, Denmark (sejet.com)	
[ ] = Limited data	Lim = Limagrain UK (lgseeds.co.uk)	Sen = Senova (senova.uk.com)	
P1 = First year of recommendation	LimEur = Limagrain Europe SA (lgseeds.co.uk)	SU = Saaten Union UK (saaten-union.co.uk)	
P2 = Second year of recommendation	Nord = Nordsaat, Germany (nordsaat.de)	Syn = Syngenta UK Ltd (syngenta.co.uk)	
	NS = Nordic Seed, Denmark	SyP = Syngenta Participations AG (syngenta.co.uk)	

# Spring barley trials harvest 2020

## Candidate varieties



Candidate varieties																
<div><div>AHDB</div><div>CANDIDATE</div></div>		Previous/proposed name	Variety ID	Yield treated (T)	Yield untreated (UT) (% treated controls)	Lodging % (UT)	Lodging % (T)	Height (cm)	Maturity (T) (days +/- Concerto)	Brackling % (T)	Mildew (1–9)	Yellow rust (1–9)	Brown rust (1–9)	Rhynchosporium (1–9)	Specific weight (kg/hl) (T)	UK contact
Control varieties																
Laureate	SY412-328	2780	105	99	[11]	[10]	65	0	23	9	[5]	5	6	66.3	Syngenta UK Ltd	
RGT Planet	LSB0769-3306	2691	102	95	[7]	[4]	69	0	19	9	[4]	5	5	67.5	RAGT Seeds	
KWS Irina	KWS-09/320	2613	100	92	[3]	[1]	64	0	9	9	[6]	5	5	65.7	KWS UK	
Propino	NFC 406-119	2336	97	84	[9]	[4]	69	-1	18	6	[4]	5	5	67.6	Syngenta UK Ltd	
Concerto	NSL 03-5262	2288	96	90	[16]	[9]	72	0	21	9	[8]	5	4	67.8	Limagrain UK	
Selected as potential malting varieties																
NOS112.430-22	Skyway	3206				Data cannot be published as variety has not completed National List testing									Agrii	
NOS112.417-03	Cadiz	3200				Data cannot be published as variety has not completed National List testing									Senova	
SY Emerson	SY417066	3165				Data cannot be published as variety has not completed National List testing									Syngenta UK Ltd	
SY Fable	SY417052	3162				Data cannot be published as variety has not completed National List testing									Syngenta UK Ltd	
Selected as potential feed varieties																
LG Mermaid	LGBU17-8519D	3178	107	[99]	[9]	[5]	67	[+1]	13	9	-	5	6	68.0	Limagrain UK	
AC17/02		3183				Data cannot be published as variety has not completed National List testing									Elsoms Ackermann Barley	
Mean of controls (t/ha)			7.1	7.1	-	-	-	134	-	-	-	-	-	-		
Overall mean			-	-	-	-	67	-	18.6	-	-	-	-	66.8		
LSD 5%			3.2	4.9	-	-	2.3	1.1	8.1	-	-	-	-	0.8		
Number of trials (for candidate varieties)			19	9	2	6	11	7	15	-	-	-	-	10		

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

The 1-9 ratings are not comparable to those used on the Recommended List table.

See the AHDB Recommended List for full data on control varieties.

Candidate varieties will be considered for the 2021 AHDB Recommended List.

Yellow rust (1-9) ratings are not presented as there were no ratings for the candidate varieties.

For latest information, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

These summaries are derived from National List and BSPB trials. Acknowledgement is made to APHA and BSPB for the use of the data.

T = Data from trials treated with fungicide

[ ] = Limited data

UT = Data from trials without fungicide or Plant Growth Regulator (PGR)

LSD = Least significant difference

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

# Winter oats 2020/21

Not added to  
Recommended List



	RGT Southwark	RGT Lineout	Dalguise	Mascani	Gerald	Peloton	Grafton	Fusion \$	Average LSD (5%)	Penrose
Variety type	Husked varieties					Naked varieties				Husked varieties
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK		Not added to RL
	C		C	C						
UK yield (% treated control)										
Fungicide-treated (8.9 t/ha)	104	100	99	97	96	77	73	72	3.0	101
Grain quality										
Kernel content (%)	73.9	73.9	74.1	76.7	71.7	-	-	-	1.0	74.7
Specific weight (kg/hl)	54.2	52.3	54.3	53.3	52.8	63.3	63.7	61.5	1.2	51.2
Screenings (% through 2.0 mm)	6.3	6.9	3.9	1.7	4.8	28.5	15.5	35.0	2.3	2.4
Agronomic features										
Resistance to lodging (1–9)	5	6	4	6	6	6	7	8	1.1	[6]
Straw length (cm)	122	114	121	118	118	115	120	81	2.8	115
Ripening (days +/- Mascani, -ve = earlier)	-1	-2	-1	0	+2	+1	-1	+3	0.9	+3
Disease resistance										
Mildew (1–9)	3	3	4	6	4	7	4	4	1.5	4
Crown rust (1–9)	8	5	4	6	5	6	4	3	0.9	[5]
Treated yields with and without PGR (% treated control)										
With PGR (9.0 t/ha)	103	100	99	97	96	76	72	71	3.1	101
Without PGR (8.8 t/ha)	104	100	99	97	96	78	74	73	3.3	101
Annual treated yield (% control)										
2015 (9.5 t/ha)	[103]	100	101	96	98	79	75	71	4.8	-
2016 (8.6 t/ha)	106	100	97	97	94	73	70	68	5.5	[101]
2017 (8.0 t/ha)	102	100	98	100	93	78	69	69	6.2	[102]
2018 (9.3 t/ha)	101	100	102	97	99	76	74	76	2.5	102
2019 (9.3 t/ha)	105	100	99	96	98	78	77	76	4.9	101
Breeder/UK contact										
Breeder	R2n	R2n	Sen	IBERS	IBERS	IBERS	IBERS	IBERS		IBERS
UK contact	RAGT	RAGT	Sen	Sen	Sen	Sen	Sen	Sen		Sen
Status in RL system										
Year first listed	18	16	03	04	93	17	00	10		
RL status	-	-	-	-	-	-	-	-		

Varieties no longer listed: Griffin. 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)  
\$ = Dwarf variety  
PGR = Plant Growth Regulator

IBERS = Institute of Biological, Environ. & Rural Sciences  
([aber.ac.uk](http://aber.ac.uk))  
R2n = RAGT, France ([ragt.co.uk](http://ragt.co.uk))

RAGT = RAGT Seeds ([ragt.co.uk](http://ragt.co.uk))  
Sen = Senova ([senova.uk.com](http://senova.uk.com))

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

# Spring oats 2020



Variety type	Described varieties									Average LSD (5%)	Described varieties		
	Delfin	WPB Isabel	Elison	Yukon	Aspen	Canyon	WPB Elyann	Conway	Firth		Oliver	Madison	Kamil
Scope of recommendation	Husked varieties									Average LSD (5%)	Naked varieties		
	UK	UK	UK	UK	UK	UK	UK	UK	UK		UK	UK	UK
		NEW			C	C	C					NEW	
UK yield (% treated control)													
Fungicide-treated (7.5 t/ha)	105	104	104	103	102	101	98	95	94	5.1	75	70	64
Untreated (% of treated control)	99	89	96	98	85	93	87	86	81	5.1	61	58	57
Grain quality													
Kernel content (%)	73.6	76.8	73.7	74.3	75.2	74.0	78.1	75.6	75.9	1.0	-	-	-
Specific weight (kg/hl)	52.0	55.7	52.6	51.9	52.8	52.9	52.1	51.9	50.9	0.9	62.9	57.3	65.9
Screenings (% through 2.0 mm)	3.1	2.3	3.0	3.0	2.3	2.2	2.7	2.8	3.0	1.6	[7.8]	[7.7]	[4.7]
Agronomic features													
Resistance to lodging (1–9)	8	[9]	[8]	8	7	7	6	8	7	0.9	8	[7]	8
Straw length (cm)	116	[114]	[113]	109	101	113	104	109	102	2.5	109	[105]	112
Ripening (days +/- Firth, -ve = earlier)	0	0	0	0	0	0	-1	0	0	1.1	0	0	+1
Disease resistance													
Mildew (1–9)	9	6	8	8	6	8	6	7	6	0.7	5	5	6
Crown rust (1–9)	4	5	3	5	5	4	5	4	4	1.0	3	4	4
Annual treated yield (% control)													
2015 (8.8 t/ha)	[101]	-	[103]	[101]	[104]	[98]	[97]	[89]	[94]	7.0	[74]	-	[64]
2016 (8.3 t/ha)	[104]	[103]	[104]	[102]	[100]	[101]	[99]	[97]	[95]	4.7	[72]	[72]	[61]
2017 (7.2 t/ha)	[112]	[111]	[102]	[106]	[101]	[103]	[96]	[98]	[101]	6.7	[77]	[70]	[62]
2018 (6.3 t/ha)	[105]	[100]	[102]	[100]	[102]	[96]	[103]	[96]	[95]	7.9	[71]	[71]	[67]
2019 (6.8 t/ha)	[104]	[106]	[111]	[106]	[102]	[105]	[93]	[98]	[85]	13.1	[77]	[63]	[68]
Breeder/UK contact													
Breeder	Nord	Weir	SE	Nord	Bau	Nord	Wier	IBERS	KWS		Selg	IBERS	Selg
UK contact	SU	KWS	Sen	SU	Sen	SU	KWS	Sen	KWS		Cope	Sen	Cope
Status in RL system													
Year first listed	18	20	19	17	15	11	17	14	00		18	20	18
RL status	-	P1	P2	-	-	-	-	-	-		-	P1	-

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)  
 [] = Limited data  
 P1 = First year of recommendation  
 P2 = Second year of recommendation  
 Bau = Bauer, Germany

Cope = Trevor Cope Seeds ([trevorcopeseeds.co.uk](http://trevorcopeseeds.co.uk))  
 IBERS = Institute of Biological, Environ. & Rural Sciences ([aber.ac.uk](http://aber.ac.uk))  
 KWS = KWS UK ([kws-uk.com](http://kws-uk.com))  
 Nord = Nordsaat, Germany ([nordsaat.de](http://nordsaat.de))

SE = Saatzeit Edelhof, Austria ([saatzeit.edelhof.at](http://saatzeit.edelhof.at))  
 Selg = Selgen, Czech Republic  
 Sen = Senova ([senova.uk.com](http://senova.uk.com))  
 SU = Saaten Union UK ([saaten-union.co.uk](http://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.

# Winter oilseed rape 2020/21 – 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					North Region				
	Scope of Recommendation		Gross Output (%C)	Seed Yield (%C)		Scope of Recommendation		Gross Output (%C)	Seed Yield (%C)
			(5.0 t/ha)	(4.7 t/ha)				(5.7 t/ha)	(5.2 t/ha)
Acacia	NEW	UK	110	109	Aurelia	NEW	UK	108	109
Ambassador	NEW	UK	108	109	Acacia	NEW	UK	108	107
Aurelia	NEW	UK	107	108	Aardvark	NEW	UK	106	105
Artemis	NEW	UK	107	106	Artemis	NEW	UK	[106]	[106]
Aspire		UK	106	105	Blazen	NEW	N	[105]	[107]
Aardvark	NEW	UK	105	105	Aspire		UK	105	105
Ballad		UK	105	104	Ambassador	NEW	UK	[104]	[105]
Crocodile \$	NEW	E/W Sp	105	106	Crome \$		UK Sp	104	103
Dazzler	NEW	E/W	104	103	DK Expansion		UK	104	104
Darling	NEW	E/W	103	103	DK Exsteel		N	103	103
Temptation		UK (Sp)	103	102	Nikita	*C	UK	102	102
DK Expansion		UK	103	103	Elevation	*	N	102	102
PT275		E/W	103	103	Barbados		N	102	103
Windozz	*	E/W	103	104	Ballad		UK	102	102
Croozier \$	NEW	E/W Sp	102	103	Anastasia	*	N	101	102
George		E/W	102	102	Kielder	*	N	99	99
Crome \$		UK Sp	102	100	Broadway	*	N	98	98
Architect	*	UK (Sp)	101	102	Butterfly	*	N	98	98
Elgar	*C	E/W	101	101	Temptation		UK (Sp)	98	97
Nikita	*C	UK	99	99	Architect	*	UK (Sp)	97	98
V 316 OL ~	C	UK Sp	98	99	V 316 OL ~	C	UK Sp	97	97
Nizza CL &	NEW	E/W Sp	96	97	PT279CL &		UK Sp	92	93
PT279CL &		UK Sp	96	96	Average LSD (5%)			6.0	5.7
Average LSD (5%)			4.8	4.5					

For the full dataset for these varieties see the following RL tables.

Sp = Specific recommendation  
(Sp) = Resistance to Turnip Yellow Virus is no longer a specialist category. Architect and Temptation have a specific recommendation for this trait

\$ = Specific recommendation for growing on land infected with common strains of clubroot. These varieties should only be used in-line with current AHDB clubroot management guidelines, to reduce the risk of resistance breakdown. See page 3 for further information

& = Herbicide tolerant variety. PT279CL and Nizza CL have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)  
~ = HOLL (High Oleic, Low Linolenic) variety

C = Yield control  
\* = Variety no longer under test in RL trials in region  
LSD = Least significant difference  
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level



# Winter oilseed rape 2020/21

Yield, quality, agronomy and disease resistance



Recommended for the UK (both East/West and North regions)

Recommended for use on clubroot infected land only

Described varieties

	Acacia	Ambassador	Aurelia	Artemis	Aspire	Aardvark	Ballad	DK Expansion	Temptation	Architect	Nikita	V 316 OL -	PT279CL &	Crome \$	Crocodile \$	Croozier \$	Average LSD (5%)	PX131	Resort †
Variety type	Conv	RH	RH	RH	Conv	Conv	Conv	RH	RH	RH	Conv	RH	RH	RH	RH	RH		RH SD	RH
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	(Sp)	(Sp)	UK	Sp	Sp	UK Sp	E/W Sp	E/W Sp			UK	UK
	NEW	NEW	NEW	NEW		NEW			*	*C	C			NEW	NEW			NEW	NEW
Gross output, yield adjusted for oil content (% treated control)																			
United Kingdom (5.1 t/ha)	109	108	108	107	106	105	105	103	103	101	100	98	96	102	104	102	4.5	97	94
East/West region (5.0 t/ha)	110	108	107	107	106	105	105	103	103	101	99	98	96	102	105	102	4.8	97	94
North region (5.7 t/ha)	108	[104]	108	[106]	105	106	102	104	98	97	102	97	92	104	[95]	[97]	6.0	98	93
Seed yield (% treated control)																			
United Kingdom (4.7 t/ha)	109	108	108	106	105	105	104	103	102	101	99	98	96	101	105	103	4.1	96	93
East/West region (4.7 t/ha)	109	109	108	106	105	105	104	103	102	102	99	99	96	100	106	103	4.5	95	93
North region (5.2 t/ha)	107	[105]	109	[106]	105	105	102	104	97	98	102	97	93	103	[96]	[97]	5.7	96	93
Untreated gross output, yield adjusted for oil content (% untreated control) □																			
United Kingdom (5.3 t/ha)	-	-	-	-	105	-	101	100	106	101	101	98	95	103	-	-	7.1	-	-
Untreated seed yield (% untreated control) □																			
United Kingdom (5.0 t/ha)	-	-	-	-	105	-	101	101	105	101	101	98	95	102	-	-	6.9	-	-
Agronomic features																			
Resistance to lodging (1–9)	[8]	[8]	[8]	[8]	8	[8]	8	8	8	8	8	8	8	8	[8]	[8]	0.2	[8]	[8]
Stem stiffness (1–9)	9	8	8	8	9	8	8	8	7	8	8	8	8	8	8	8	0.4	9	8
Shortness of stem (1–9)	7	6	6	5	7	6	7	5	6	6	7	6	6	6	6	6	0.2	9	6
Earliness of flowering (1–9)	6	7	7	6	7	8	7	6	6	6	7	6	6	7	6	8	0.3	6	7
Earliness of maturity (1–9)	5	6	5	6	5	5	4	5	5	6	5	5	6	5	5	6	0.4	4	5
Seed quality (at 9% moisture)																			
Oil content, fungicide-treated (%)	45.7	45.3	45.2	45.7	45.7	45.7	45.8	45.5	46.0	45.0	45.7	45.3	44.9	46.4	45.0	44.8	0.3	46.7	45.8
Glucosinolate (µmoles/g)	8.1	10.9	10.2	12.3	9.9	10.0	10.8	10.1	12.0	14.4	8.6	12.3	10.9	10.8	12.8	12.2	-	9.4	14.0
Disease resistance																			
Light leaf spot (1–9)	6	7	8	6	7	7	6	6	6	5	7	6	6	6	6	6	0.8	7	6
Stem canker (1–9)	5	8	8	7	6	6	5	7	5	5	4	5	5	4	4	9	0.9	6	6
TuYV	-	R	R	R	R	-	-	-	R	R	-	-	-	-	-	-		-	-

Varieties no longer listed in the UK (both East/West and North regions): Alizze, Campus and Mentor. Varieties no longer listed in the East/West region: Aquila, Ergo, Flamingo and Wembley. HEAR (High Erucic Acid) and semi-dwarf 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). 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. See page 3 for information on regional yields.

UK = Recommended for both the East/West and North regions  
E/W = Recommended for the East/West region  
Sp = Specific recommendation  
(Sp) = Resistance to Turnip Yellow Virus is no longer a specialist category. Architect and Temptation have a specific recommendation for this trait  
Conv = Conventional open-pollinated variety  
RH = Restored hybrid  
SD = Semi-dwarf

C = Yield control (for current table). For this table Campus and Alizze were also control varieties but are no longer listed  
\* = Variety no longer under test in RL trials in region  
\$ = Specific recommendation for growing on land infected with common strains of clubroot. These varieties should only be used in-line with current AHDB clubroot management guidelines, to reduce the risk of resistance breakdown. See page 3 for further information

& = Herbicide tolerant variety. PT279CL and Nizza CL have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)  
~ = HOLL (High Oleic, Low Linolenic) variety  
† = HEAR (High Erucic Acid) variety  
□ = Untreated yield data available for 2017, 2018 and 2019 only. Untreated trials are treated for sclerotinia at flowering  
[] = Limited data

R = Believed to be resistant to Turnip Yellow Virus (TuYV) 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 oilseed rape 2020/21

Yield, quality, agronomy and disease resistance



Variety type Scope of recommendation	Recommended for the East/West region only							Recommended for the North region only								Average LSD (5%)
	Dazzler	Darling	PT275	Windozz	George	Elgar	Nizza CL &	Blazen	DK Exsteel	Elevation	Barbados	Anastasia	Kielder	Broadway	Butterfly	
	RH	RH	RH	RH	RH	Conv	RH	Conv	RH	Conv	Conv	Conv	Conv	Conv	Conv	
	E/W	E/W	E/W	E/W	E/W	E/W	Sp	N	N	N	N	N	N	N	N	
	NEW	NEW		*		*C	NEW	NEW		*		*	*	*	*	
<b>Gross output, yield adjusted for oil content (% treated control)</b>																
United Kingdom (5.1 t/ha)	103	103	102	102	102	100	96	103	101	98	99	98	96	94	99	4.5
East/West region (5.0 t/ha)	104	103	103	103	102	101	96	102	101	97	98	97	95	93	99	4.8
North region (5.7 t/ha)	[101]	[102]	98	99	101	98	[90]	[105]	103	102	102	101	99	98	98	6.0
<b>Seed yield (% treated control)</b>																
United Kingdom (4.7 t/ha)	102	103	102	104	102	101	97	104	101	98	99	99	96	94	99	4.1
East/West region (4.7 t/ha)	103	103	103	104	102	101	97	103	101	97	99	98	95	93	99	4.5
North region (5.2 t/ha)	[100]	[101]	98	101	100	98	[91]	[107]	103	102	103	102	99	98	98	5.7
<b>Untreated gross output, yield adjusted for oil content (% untreated control) □</b>																
United Kingdom (5.3 t/ha)	-	-	101	101	98	100	-	-	103	100	98	99	96	95	100	7.1
<b>Untreated seed yield (% untreated control) □</b>																
United Kingdom (5.0 t/ha)	-	-	101	102	98	101	-	-	103	99	99	101	95	95	100	6.9
<b>Agronomic features</b>																
Resistance to lodging (1–9)	[8]	[8]	8	8	8	8	[8]	[8]	8	8	8	8	8	8	8	0.2
Stem stiffness (1–9)	9	8	8	8	8	8	8	9	8	8	8	8	9	8	8	0.4
Shortness of stem (1–9)	6	6	6	7	7	6	6	6	5	7	6	7	6	6	7	0.2
Earliness of flowering (1–9)	8	7	5	8	7	6	7	6	6	5	6	6	7	7	6	0.3
Earliness of maturity (1–9)	6	5	5	5	5	6	5	5	5	5	4	5	5	5	4	0.4
<b>Seed quality (at 9% moisture)</b>																
Oil content, fungicide-treated (%)	46.2	46.0	45.5	44.5	45.4	45.1	45.0	44.8	45.5	45.6	45.0	44.6	45.9	45.2	45.4	0.3
Glucosinolate (µmoles/g)	11.1	12.2	8.4	9.6	9.6	9.6	14.9	10.7	11.9	10.6	11.1	11.1	13.3	8.2	10.2	-
<b>Disease resistance</b>																
Light leaf spot (1–9)	6	6	6	5	6	7	4	6	7	6	8	7	7	7	7	0.8
Stem canker (1–9)	8	8	5	5	9	6	6	7	8	5	7	5	3	4	6	0.9
TuYV	R	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Varieties no longer listed in the UK (both East/West and North regions): Alizze, Campus and Mentor. Varieties no longer listed in the East/West region: Aquila, Ergo, Flamingo and Wembley.

HEAR (High Erucic Acid) and semi-dwarf 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).

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. See page 3 for information on regional yields.

E/W = Recommended for the East/West region	C = Yield control (for current table). For this table Campus and Alizze were also control varieties but are no longer listed	& = Herbicide tolerant variety. PT279CL and Nizza CL have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)	□ = Untreated yield data available for 2017, 2018 and 2019 only. Untreated trials are treated for sclerotinia at flowering	been verified in Recommended List tests
N = Recommended for the North region	*		[ ] = Limited data	LSD = Least significant difference
Sp = Specific recommendation			R = Believed to be resistant to Turnip Yellows Virus (TuYV) but this has not	Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level
Conv = Conventional open-pollinated variety				
RH = Restored hybrid				

# Winter oilseed rape 2020/21

## Supplementary data



	Recommended for the UK (both East/West and North regions)														Recommended for use on clubroot infected land only			Described varieties	
	Acacia	Ambassador	Aurelia	Artemis	Aspire	Aardvark	Ballad	DK Expansion	Temptation	Architect	Nikita	V 316 OL ~	PT279CL &	Crome \$	Crocodile \$	Crozier \$	Average LSD (5%)	PX131	Resort †
Variety type	Conv	RH	RH	RH	Conv	Conv	Conv	RH	RH	RH	Conv	RH	RH	RH	RH	RH		RH SD	RH
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	(Sp)	(Sp)	UK	Sp	Sp	UK Sp	E/W Sp	E/W Sp		UK	UK
	NEW	NEW	NEW	NEW		NEW				*	*C				NEW	NEW		NEW	NEW
Breeder/UK contact																			
Breeder	LimEur	LimEur	LimEur	LimEur	LimEur	LimEur	KWSMR	MonTec	DSV	LimEur	LimEur	MonTec	PionOS	NPZ	Lemb	Lemb		PionOS	Lemb
UK contact	Lim	Lim	Lim	Lim	Lim	Lim	KWS	Bay	DSV	Lim	Lim	Bay	Cor	LSPB	DSV	LSPB		Cor	LSPB
Annual treated gross output, yield adjusted for oil content (% control) - UK																			
2016 (5.1 t/ha)	-	-	-	-	103	-	104	105	98	95	102	99	93	101	-	-	-	-	-
2017 (5.7 t/ha)	109	107	108	106	106	107	104	102	100	99	102	97	94	104	100	100	-	98	95
2018 (5.5 t/ha)	108	105	107	105	105	105	101	101	102	100	101	97	95	103	99	97	-	100	94
2019 (5.2 t/ha)	110	108	109	108	107	105	104	105	102	103	99	97	94	104	100	101	-	95	93
Agronomy																			
Plant height (cm)	150	161	155	167	147	154	150	165	154	161	148	157	156	154	153	152	2.7	122	155
Status in RL system																			
Year first listed	20	20	20	20	19	20	19	19	19	18	16	15	19	19	20	20		20	20
RL status	P1	P1	P1	P1	P2	P1	P2	P2	P2	*	*	-	P2	P2	P1	P1		P1	P1

UK	= Recommended for both the East/West and North regions	*	= Variety no longer under test in RL trials in region	P1	= First year of recommendation	LimEur	= Limagrain Europe SA ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )
E/W	= Recommended for the East/West region	\$	= Specific recommendation for growing on land infected with common strains of clubroot. These varieties should only be used in-line with current AHDB clubroot management guidelines, to reduce the risk of resistance breakdown. See page 3 for further information	P2	= Second year of recommendation	LSPB	= LS Plant Breeding ( <a href="http://lspb.eu">lspb.eu</a> )
Sp	= Specific recommendation			Bay	= Bayer CropScience ( <a href="http://bayercropscience.co.uk">bayercropscience.co.uk</a> )	MonTec	= Monsanto Technology LLC ( <a href="http://monsanto.com">monsanto.com</a> )
(Sp)	= Resistance to Turnip Yellow Virus is no longer a specialist category. Architect and Temptation have a specific recommendation for this trait			Cor	= Corteva Agriscience™ ( <a href="http://corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )	NPZ	= NPZ-Lembke, Germany ( <a href="http://npz.de">npz.de</a> )
Conv	= Conventional open-pollinated variety	&	= Herbicide tolerant variety. PT279CL and Nizza CL have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)	DSV	= DSV UK ( <a href="http://dsv-uk.co.uk">dsv-uk.co.uk</a> )	PionOS	= Pioneer Overseas Corporation ( <a href="http://corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )
RH	= Restored hybrid			Els	= Elsoms Seeds ( <a href="http://elsoms.com">elsoms.com</a> )	LSD	= Least significant difference
SD	= Semi-dwarf			KWS	= KWS UK ( <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
C	= Yield control (for current table). For this table Campus and Alizze were also control varieties but are no longer listed	~	= HOLL (High Oleic, Low Linolenic) variety	KWSMR	= KWS Momont Recherche ( <a href="http://kws-uk.com">kws-uk.com</a> )		
		†	= HEAR (High Erucic Acid) variety	Lemb	= Lembke, Germany		
				Lim	= Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )		

# Winter oilseed rape 2020/21

## Supplementary data



Variety type Scope of recommendation	Recommended for the East/West region only							Recommended for the North region only								Average LSD (5%)
	Dazzler	Darling	PT275	Windozz	George	Elgar	Nizza CL &	Blazen	DK Exsteel	Elevation	Barbados	Anastasia	Kielder	Broadway	Butterfly	
	RH	RH	RH	RH	RH	Conv	RH	Conv	RH	Conv	Conv	Conv	Conv	Conv	Conv	
	E/W	E/W	E/W	E/W	E/W	E/W	Sp	N	N	N	N	N	N	N	N	
Breeder/UK contact	NEW	NEW		*		*C	NEW	NEW		*		*	*	*	*	
Breeder	DSV	DSV	PionOS	R2n	SyP	Els	R2n	KWSMR	MonTec	Pick	KWSMR	Lim	Pars	Pick	KWSMR	
UK contact	DSV	DSV	Cor	RAGT	Syn	Els	RAGT	KWS	Bay	DLF	KWS	Lim	Els	DLF	KWS	
Annual treated gross output, yield adjusted for oil content (% control) - UK																
2016 (5.1 t/ha)	-	-	99	99	99	98	-	-	102	99	[99]	[99]	98	98	96	-
2017 (5.7 t/ha)	102	103	101	102	103	99	93	106	102	102	102	99	100	97	99	-
2018 (5.5 t/ha)	100	101	101	101	101	99	93	104	101	101	100	99	95	95	99	-
2019 (5.2 t/ha)	105	104	99	102	102	101	95	104	103	99	101	100	96	93	98	-
Agronomy																
Plant height (cm)	155	160	156	150	151	154	153	152	165	151	154	149	159	152	149	2.7
Status in RL system																
Year first listed	20	20	19	16	19	16	20	20	19	18	16	13	18	18	18	
RL status	P1	P1	P2	*	P2	*	P1	P1	P2	*	-	*	*	*	*	

UK	= Recommended for both the East/West and North regions	C	= Yield control (for current table). For this table Campus and Alizze were also control varieties but are no longer listed	DLF	= DLF Seeds Ltd ( <a href="http://dlf.co.uk">dlf.co.uk</a> )	RAGT	= RAGT Seeds ( <a href="http://ragt.co.uk">ragt.co.uk</a> )
E/W	= Recommended for the East/West region	*	= Variety no longer under test in RL trials in region	DSV	= DSV UK ( <a href="http://dsv-uk.co.uk">dsv-uk.co.uk</a> )	SyP	= Syngenta Participations AG ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )
N	= Recommended for the North region	&	= Herbicide tolerant variety. PT279CL and Nizza CL have a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)	Els	= Elsoms Seeds ( <a href="http://elsoms.com">elsoms.com</a> )	Syn	= Syngenta UK Ltd ( <a href="http://syngenta.co.uk">syngenta.co.uk</a> )
Sp	= Specific recommendation			KWS	= KWS UK ( <a href="http://kws-uk.com">kws-uk.com</a> )	LSD	= Least significant difference
(Sp)	= Resistance to Turnip Yellows Virus is no longer a specialist category. Architect and Temptation have a specific recommendation for this trait			KWSMR	= KWS Momont Recherche ( <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	
Conv	= Conventional open-pollinated variety	[ ]	= Limited data	Lim	= Limagrain UK ( <a href="http://lgseeds.co.uk">lgseeds.co.uk</a> )		
RH	= Restored hybrid	P1	= First year of recommendation	MonTec	= Monsanto Technology LLC ( <a href="http://monsanto.com">monsanto.com</a> )		
SD	= Semi-dwarf	P2	= Second year of recommendation	Pars	= Parsons Seeds Ltd		
		Bay	= Bayer CropScience ( <a href="http://bayercropscience.co.uk">bayercropscience.co.uk</a> )	Pick	= Mike Pickford		
		Cor	= Corteva Agriscience™ ( <a href="http://corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )	PionOS	= Pioneer Overseas Corporation ( <a href="http://corteva.co.uk/pioneer">corteva.co.uk/pioneer</a> )		
				R2n	= RAGT, France ( <a href="http://ragt.co.uk">ragt.co.uk</a> )		

# Winter oilseed rape trials harvest 2020

## Candidate varieties



Winter oilseed rape trials harvest 2020																			
Candidate varieties																			
<div><div>AHDB</div><div>CANDIDATE</div></div>																			
Previous/proposed name	Variety ID	Variety type	Gross output (%) - UK	Gross output (%) - East/West	Gross output (%) - North	Treated seed yield (%) - UK	Treated seed yield (%) - East/West	Treated seed yield (%) - North	Oil content (%)	Resistance to lodging (1-9)	Stem stiffness (1-9)	Height (cm)	Earliness of flowering (1-9)	Earliness of maturity (1-9)	Resistance to light leaf spot (1-9)	Resistance to stem canker (1-9)	TuYV Resistance	Breeder's claim	UK contact
Control varieties																			
Elgar	SW024120	2637	Conv	99	-	97	99	-	98	45.2	9	9	152	5	6	7	6	-	Elsoms Seeds
Alizze	HR 158108	2622	RH	100	100	102	100	99	101	45.6	8	8	155	7	6	7	4	-	RAGT Seeds
Nikita	LEL12/248	2574	Conv	99	97	101	99	98	101	45.3	9	8	147	6	5	7	4	-	Limagrain UK
Campus	MH 06 CP 057	2535	Conv	103	103	104	103	103	104	45.3	8	8	157	5	6	6	6	-	KWS UK
V 316 OL	MDS 16	2523	RH	99	101	96	99	101	97	45.1	9	8	160	5	6	6	5	-	Bayer CropScience
Candidate varieties - UK																			
Voltage	RAP 559	3125								Data cannot be published as variety has not completed National List testing									DSV UK
MH 15HT227		3144								Data cannot be published as variety has not completed National List testing									KWS UK
Candidate varieties - East/West																			
LE17/335	LG Antigua	3111								Data cannot be published as variety has not completed National List testing									Limagrain UK
LG Aviron	LE17/332	3110								Data cannot be published as variety has not completed National List testing									Limagrain UK
Respect	LSF17191W11	3117								Data cannot be published as variety has not completed National List testing									LS Plant Breeding
DK Expectation	DMH432	3098	RH		108			108		45.0	8	7	158	7	6	6	8	R	Bayer CropScience
Kazze	HRD1211	3104	RH		104			103		45.5	8	8	157	6	5	6	5	-	RAGT Seeds
LE17/342		3113								Data cannot be published as variety has not completed National List testing									Limagrain UK
Blackmillion	HRE1296	3106	RH		107			105		46.1	8	7	167	5	6	5	7	-	RAGT Seeds
LG Arcade	LE17/330	3109								Data cannot be published as variety has not completed National List testing									Limagrain UK
Blackpearl	NPZ17168W11	3119								Data cannot be published as variety has not completed National List testing									LS Plant Breeding
CWH382		3092								Data cannot be published as variety has not completed National List testing									Bayer CropScience
Mean of controls (t/ha)				5.3	5.1	6.0	4.9	4.8	5.5	-	-	-	-	-	-	-	-		
Overall mean				-	-	-	-	-	-	44.9	-	7.7	157	5.1	5.8	-	-	-	
LSD 5%				5.2	6.4	6.1	4.7	5.9	6.0	0.4	1.2	0.6	4.3	0.5	0.4	-	-	-	
Number of trials				19	12	7	19	12	7	19	5	14	21	21	19	-	-	-	

All values are UK values (except gross output and treated seed yield).

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

The 1-9 ratings are not comparable to those used on the Recommended List table.

Candidate varieties will be considered for the 2021/22 AHDB Recommended List.

To allow direct comparisons the data presented for control varieties are taken only from trials in which the candidate varieties have also been grown. See the AHDB Recommended List for full data on control varieties.

All data except disease ratings are taken from fungicide-treated trials.

For latest information, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

These summaries are derived from National List and BSPB trials. Acknowledgement is made to APHA and BSPB for the use of the data.

Conv = Conventional open-pollinated variety  
RH = Restored hybrid

R = Believed to be resistant to Turnip Yellow Virus (TuYV).  
LSD = Least significant difference

LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level.



# Spring oilseed rape Descriptive List 2020



DESCRIBED

	Performer	Lagonda	Lumen	Lexus	Builder	Sunder	Mirakel	Average LSD (5%)
Variety type	RH	RH	RH	RH	RH	RH	RH	
	<b>NEW</b>						<b>C</b>	
<b>Gross output, yield adjusted for oil content (% control)</b>								
UK without fungicide (3.2 t/ha)	[113]	[112]	[105]	[103]	101	101	98	8.5
Number of trials	4	6	9	6	11	11	11	
<b>Seed yield (% control)</b>								
UK without fungicide (3.0 t/ha)	[111]	[113]	[105]	[104]	101	100	98	8.6
<b>Seed quality (at 9% moisture)</b>								
Oil content (%)	[46.2]	[44.2]	[44.7]	[44.7]	45.6	45.9	44.4	0.6
Glucosinolate content (µmoles/g)	13.6	11.0	11.0	13.1	14.4	12.9	10.5	-
<b>Agronomic features</b>								
Shortness of stem (1–9)	[6]	6	7	6	6	7	7	0.3
Earliness of flowering (1–9)	[6]	7	7	7	7	7	7	0.7
Earliness of maturity (1–9)	[4]	5	7	5	4	4	7	1.2
<b>Annual gross output, yield adjusted for oil content (% control)</b>								
2014 (3.3 t/ha)	-	-	[109]	-	[94]	[94]	[103]	9.9
2015 #	-	-	-	-	-	-	-	-
2016 (3.0 t/ha)	-	[104]	[101]	[110]	[105]	[103]	[96]	24.1
2017 (3.2 t/ha)	[119]	[127]	[103]	[101]	[102]	[103]	[94]	16.6
2018 (3.2 t/ha)	[[120]]	[[116]]	[[110]]	[[107]]	[[109]]	[[104]]	[[97]]	-
2019 (3.6 t/ha)	[[101]]	[[103]]	[[107]]	[[99]]	[[104]]	[[107]]	[[94]]	-
<b>Breeder/UK contact</b>								
Breeder	BASF	NPZ	NPZ	NPZ	BASF	BASF	NPZ	
UK contact	BASF	DSV	DSV	DSV	BASF	BASF	DSV	
<b>Status in DL system</b>								
Year first listed	20	19	18	19	15	17	15	
DL status	P1	P2	-	P2	-	-	-	

**Varieties no longer listed:** Axana, Dodger, Makro and Tamarin.

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.

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

RH = Restored hybrid

C = Yield control (for current table). For this table Makro was also a yield control but is no longer listed

# = There were no yield results for 2015 due to trial failure

[] = Limited data

[[ ]] = 1 trial only

P1 = First year of listing

P2 = Second year of listing

BASF = BASF Agricultural Solutions Seed US LLC  
([agriculture.basf.com/en/Crop-Protection.html](http://agriculture.basf.com/en/Crop-Protection.html))

DSV = DSV UK ([dsv-uk.co.uk](http://dsv-uk.co.uk))

NPZ = NPZ-Lembke, Germany ([npz.de](http://npz.de))

LSD = Least significant difference

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

# Spring linseed Descriptive List 2020



DESCRIBED

	Bliss	Juliet	Bingo	Bowler	Ineke	Octal	Batsman	Daniel	Empress	Aquarius	Lion	Festival	Abacus	Galaad	Faser	Omegalain	Marquise	Average LSD (5%)
Seed colour	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	
	<b>NEW</b>						<b>C</b>			<b>*C</b>	<b>*</b>	<b>*</b>	<b>C</b>		<b>*</b>	<b>*</b>	<b>*</b>	
Seed yield as % control																		
UK without fungicide (2.0 t/ha)	[113]	112	109	106	105	105	103	102	101	100	100	98	96	96	96	95	92	7.9
Number of trials	8	15	15	15	15	15	15	15	15	15	15	12	15	12	15	15	12	
Seed quality (at 9% moisture)																		
Oil content of seed (%)	[40.3]	41.6	40.0	40.8	39.6	40.8	40.3	39.7	40.2	42.9	42.7	42.7	39.8	40.3	39.3	43.0	40.6	0.4
Agronomic features																		
Plant height (cm)	54	59	54	54	62	54	57	56	52	55	53	55	54	45	53	54	48	2.5
Earliness of flowering (1–9)	6	4	5	3	2	3	6	6	6	5	5	4	5	8	6	5	7	0.9
Earliness of maturity (1–9)	[6]	4	5	6	4	5	6	5	6	6	6	6	7	8	6	6	7	0.7
Annual seed yield (% control)																		
2015 (1.7 t/ha)	-	[116]	[107]	[106]	[106]	[100]	[109]	[104]	[105]	[98]	[99]	-	[94]	-	[96]	[102]	[97]	12.0
2016 (2.2 t/ha)	-	[102]	[107]	[102]	[100]	[101]	[96]	[103]	[100]	[105]	[104]	[102]	[99]	[100]	[98]	[101]	[91]	8.9
2017 (1.7 t/ha)	[118]	[114]	[104]	[110]	[107]	[109]	[101]	[103]	[108]	[102]	[100]	[94]	[98]	[98]	[106]	[95]	-	13.0
2018 (2.5 t/ha)	[103]	[126]	[119]	[100]	[100]	[103]	[106]	[103]	[95]	[99]	[94]	[100]	[95]	[99]	[91]	[89]	[90]	13.7
2019 (2.1 t/ha)	[118]	[108]	[109]	[111]	[113]	[111]	[107]	[97]	[100]	[97]	[103]	[93]	[95]	[86]	[89]	[89]	[91]	12.5
Breeder/UK contact																		
Breeder	Bilt	GKI	Bilt	Bilt	JTSD	LaS	Bilt	Med	GIE	LimEur	Lim	LaS	JTSD	LaS	JTSD	TdL	GIE	
UK contact	Els	Agr	Els	Els	JTSD	Dalt	Els	Agr	PC	Lim	Lim	PC	JTSD	PC	JTSD	PC	PC	
Status in DL system																		
Year first listed	20	01	17	13	18	17	12	18	17	17	18	12	06	17	18	14	14	
DL status	P1	-	-	-	-	-	-	-	-	*	*	*	-	-	*	*	*	

**Varieties no longer listed:** Altesse, Aries, Brighton, Carina and Kaolin.

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

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

Data for the Year 3 candidates cannot be published as these varieties have not yet completed National List testing. For latest information, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

B = Brown  
C = Yield control (for current table)  
\* = Variety no longer under test in RL trials  
[] = Limited data  
P1 = First year of listing  
Agr = Agrii ([agrii.co.uk](http://agrii.co.uk))

Bilt = Van de Bilt, Netherlands  
Dalt = Dalton Seeds ([dalmark.co.uk](http://dalmark.co.uk))  
Els = Elsoms Seeds ([elsoms.com](http://elsoms.com))  
GIE = GIE Linea, France  
GKI = GK Kht, Hungary  
JTSD = JTSD Ltd ([jtsd.co.uk](http://jtsd.co.uk))

LaS = Laboulet Semences, France  
Lim = Limagrain UK ([lgseeds.co.uk](http://lgseeds.co.uk))  
LimEur = Limagrain Europe SA ([lgseeds.co.uk](http://lgseeds.co.uk))  
Med = Medovarsky  
PC = Premium Crops ([premiumcrops.com](http://premiumcrops.com))  
TdL = Terre de Lin, France

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

# Winter triticale Descriptive List 2020/21



	Kasyno	KWS Fido	Cyrkon	Tibeca	Toro	Tender PZO	Securo	Agostino
	C				NEW	NEW	*	C
Grain yield (as % treated control)								
Fungicide-treated (10.2 t/ha)	107	105	100	100	[99]	[99]	96	95
Number of trials	10	10	10	10	6	6	10	10
Agronomic features								
Lodging (%)	[0]	[0]	[0]	[9]	[0]	[16]	[1]	[0]
Straw length (cm)	102	112	97	119	[101]	[125]	119	101
Ripening (days +/- Agostino, -ve = earlier)	[0]	[0]	[0]	[0]	[0]	[0]	[+1]	[0]
Grain quality								
Specific weight (kg/hl)	74.3	76.6	73.9	73.5	[72.6]	[75.6]	74.4	75.1
Protein content (%)	12.1	11.7	12.1	11.9	[12.6]	[12.6]	12.8	12.1
Breeder/UK contact								
Breeder	Dank	Lant	Hod	Desp	Hod	IGP	Eng	Lant
UK contact	Sen	Sen	Dalt	Els	Dalt	Sen	Cope	Sen
Status in DL system								
Year first listed	18	14	16	12	20	20	17	11
DL status	-	-	-	-	P1	P1	*	-

Year 3 Candidates				
Average LSD (5%)	Trivalan \$	NORD11R875/008 \$	Temuco	Belcanto
7.6	-	-	[102]	[102]
	-	-	4	4
6.3	-	-	-	-
6.7	-	-	[109]	[112]
1.9	-	-	[-1]	[+3]
1.3	-	-	[72.8]	[78.6]
0.5	-	-	[11.9]	[12.6]
	-	Nord	Lant	Dank
	Els	SU	Sen	Sen
	-	-	-	-
	-	-	-	-

Varieties no longer listed: Dometica, Kereon and LD17.

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

\$ Data for these Year 3 candidates cannot be published as these varieties have not completed National List testing. For latest information, visit [ahdb.org.uk/rl](http://ahdb.org.uk/rl)

C = Yield control (for current table)

\* = Variety no longer under test in RL trials

[ ] = Limited data

P1 = First year of listing

Cope = Trevor Cope Seeds ([trevorcopeseeds.co.uk](http://trevorcopeseeds.co.uk))

Dalt = Dalton Seeds ([dalmark.co.uk](http://dalmark.co.uk))

Dank = Danko Hodowla Roslin, Poland ([danko.pl](http://danko.pl))

Desp = Maison Florimond Desprez, France

([florimond-desprez.com](http://florimond-desprez.com))

Els = Elsoms Seeds ([elsoms.com](http://elsoms.com))

Eng = Saatucht Streng-Engelen

Hod = Hodowla Roslin Strzelce, Poland

([hr-strzelce.pl](http://hr-strzelce.pl))

IGP = IG-Pflanzenzucht, Germany

Lant = Lantmannen SW Seed BV ([lantmannen.se](http://lantmannen.se))

Sen = Senova ([senova.uk.com](http://senova.uk.com))

LSD = Least significant difference

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

# Winter rye Descriptive List 2020/21



Variety type	SU Performer	SU Cossani	SU Mephisto	SU Promotor	Inspector	Dukato
	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv
			C	NEW		
Grain yield (as % treated control)						
Fungicide-treated (9.8 t/ha)	106	101	100	99	90	89
Number of trials	13	13	13	7	13	13
Agronomic features						
Lodging (%)	[5]	[16]	[20]	[4]	[23]	[17]
Straw length (cm)	129	128	129	128	139	138
Ripening (days +/- SU Mephisto, -ve = earlier)	0	0	0	0	0	0
Grain quality						
Protein content (%)	9.4	9.6	9.6	9.6	10.2	9.9
Hagberg Falling Number	243	230	210	245	205	194
Specific weight (kg/hl)	78.4	77.2	77.2	77.9	78.7	78.4
Breeder/UK contact						
Breeder	Hybro	SU	Hybro	SU	PHP	Hybro
UK contact	SU	SU	SU	SU	SU	SU
Status in DL system						
Year first listed	17	18	15	20	16	17
DL status	-	-	-	P1	-	-

Year 3 Candidates				
Average LSD (5%)	KWS Serafino	Poseidon	SU Arvid	SU Nasri
	Hybrid	Hybrid	Hybrid	Hybrid
6.0	[111]	[104]	[103]	[98]
	5	5	5	5
5.3	-	-	-	-
6.5	[131]	[127]	[133]	[127]
1.7	[0]	[0]	[0]	[0]
0.4	[9.5]	[10.2]	[9.2]	[9.7]
19.6	[229]	[197]	[191]	[210]
0.9	[76.5]	[76.3]	[77.8]	[76.7]
	KWSGmbh	NS	Hybro	Hybro
	KWS	Dalt	SU	SU
	-	-	-	-
	-	-	-	-

Varieties no longer listed: Tur.

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

Conv = Conventional variety  
C = Yield control (for current table)  
[] = Limited data  
P1 = First year of listing

Dalt = Dalton Seeds ([dalmark.co.uk](http://dalmark.co.uk))  
Hybro = Hybro, Germany  
KWS = KWS UK ([kws-uk.com](http://kws-uk.com))  
KWSGmbh = KWS Lochow GmbH ([kws-uk.com](http://kws-uk.com))

NS = Nordic Seed, Denmark  
PHP = P.H.Petersen, Germany ([phpetersen.com](http://phpetersen.com))  
SU = Saaten Union UK ([saaten-union.co.uk](http://saaten-union.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







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## 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.



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



## Test and trials contractors

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## Committee members and growers

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



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