

AHDB Recommended List

Winter barley 2020/21

Market options, yield and grain quality



	Electrum	Craft	SY Venture	KWS Hawking	LG Mountain	KWS Gimlet	Jordan	LG Flynn	KWS Ornell	Valerie	Surge	KWS Creswell	KWS Tower	KWS Glacier	California	KWS Cassia	Belmont \$	SY Kingsbarn \$	SY Baracoda \$	Barooka \$	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	
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	

Not added to Recommended List											
Zophia	Fay	KWS Patriot	SY Kingston \$								
Two-row malting	Two-row feed	Six-row feed									
Not added to RL	Not added to RL	Not added to RL	Not added to RL								
-	-	-	-								
96	96	103	107								
97	96	103	106								
96	97	103	108								
94	95	104	107								
83	80	84	91								
T	T	-	-								
69.5	68.2	68.6	69.6								
2.1	2.0	2.0	2.4								
6.5	6.2	6.4	9.3								
1.74	1.77	-	-								

Varieties no longer listed: KWS Infinity and Sunnivalde.
Comparisons of variety performance across regions are not valid.

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

C = Yield control (for current table)
* = Variety no longer under test in RL trials
S = Hybrid variety
[] = Limited data

F = Full MBC approval
P = Provisional MBC approval
T = Under test for 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.

AHDB Recommended List Winter barley 2020/21

Yield, agronomy and disease resistance



End-use group	Electrum			Two-row feed													Six-row feed						Average LSD (5%)			
	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK					
Scope of recommendation	C	C		NEW			NEW	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	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				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
Agronomic features																										
Resistance to lodging (1-9)	7	8	7	7	7	7	7	8	8	7	7	8	7	8	7	8	7	7	7	7	8	8	8	7	-	
Straw height without PGR (cm)	92	89	86	[90]	85	98	[85]	94	86	89	86	87	90	84	92	91		109	111	118	114	108	105	93	108	4.6
Straw height with PGR (cm)	88	87	82	84	84	92	82	90	84	85	84	85	85	80	88	88		104	101	108	107	100	98	90	102	2.5
Ripening (+/-KWS Orwell, -ve = earlier)	-2	0	0	0	-1	0	0	0	0	-1	-1	-1	0	-1	-1	0		-1	-1	-1	-1	0	-2	-1	1.0	
Winter hardiness #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Disease resistance																										
Mildew (1-9)	6	6	6	5	5	6	5	4	3	6	6	5	5	4	6	4		5	6	7	5	5	6	5	5	0.8
Yellow rust (1-9)	-	[8]	[8]	-	-	-	-	-	[7]	-	[8]	[8]	[8]	[8]	[7]	[5]		-	-	-	[9]	[8]	-	[9]	-	2.9
Brown rust (1-9)	6	6	6	6	7	6	8	7	7	9	8	6	6	7	5	7		4	5	5	5	7	6	8	6	0.9
Rhynchosporium (1-9)	7	6	5	6	5	6	7	6	6	6	7	6	6	4	6	5		6	6	7	6	6	7	7	7	1.4
Net blotch (1-9)	6	6	4	6	6	6	5	6	5	6	6	4	4	6	6	6		6	5	5	6	5	6	5	6	1.2
BaYMV	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		R	R	R	R	R	R	R	R	-

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.

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

C = Yield control (for current table)
* = Variety no longer under test in RL trials
\$ = Hybrid variety
[] = Limited data

= The winter hardiness scores are taken from extreme tests in the Jura mountains of France but currently insufficient data for 1-9 ratings.

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.

Not added to Recommended List											
Zophia			Fay			KWS Patriot			SY Kingston \$		
Two-row malting			Two-row feed			Six-row feed			Six-row feed		
Not added to RL			Not added to RL			Not added to RL			Not added to RL		
-	-	-	-	-	-	-	-	-	-	-	-
96	96		103			107					
97	96		103			106					
96	97		103			108					
94	95		104			107					
83	80		84			91					
7	7		7			7					
[90]	[84]		[92]			[118]					
87	81		89			105					
-1	-2		-1			-2					
-	-		-			-					
6	6		4			7					
-	-		-			-					
7	7		6			6					
6	5		6			5					
6	5		5			5					
R	R		R			R					

AHDB Recommended List Winter barley 2020/21

Supplementary data



	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	
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	-	-	*	-	-	

Not added to Recommended List			
Zophia	Fay	KWS Patriot	SY Kingston \$
Two-row malting	Two-row feed	Two-row feed	Six-row feed
Not added to RL	Not added to RL	Not added to RL	Not added to RL
-	-	-	-
Sej	Bre	KWS	SyP
Sen	Sen	KWS	Syn
-	-	-	-
-	-	-	-
95	95	103	107
97	97	104	107
96	96	103	107
95	95	104	107
99	99	103	106
7	8	7	6
5	6	4	9
308.8	306.7	-	-
-	-	-	-
-	-	-	-

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

UK = Recommended for the UK
W = Recommended for the West region
N = Recommended for the North region
C = Yield control (for current table)
* = Variety no longer under test in RL trials

\$ = Hybrid variety
[] = Limited data
P1 = First year of recommendation
P2 = Second year of recommendation

Ack = Ackermann Saatzzucht GmbH
Bre = Saatzzucht Josef Breun, Germany
ElsAck = Elsom's Ackermann Barley
KWS = KWS UK (www.kws-uk.com)
KWSMR = KWS Momont Recherche (www.kws-uk.com)
Lim = Limagrain UK (www.lgseeds.co.uk)

LimEur = Limagrain Europe SA (www.lgseeds.co.uk)
Sej = Sejet, Denmark (www.sejet.com)
Sen = Senova (www.senova.uk.com)
Syn = Syngenta UK Ltd (www.syngenta.co.uk)
SyP = Syngenta Participations AG (www.syngenta.co.uk)

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