

AHDB Recommended List - Table 1

Winter wheat 2016/17

MARKET OPTIONS AND GRAIN QUALITY

	RECOMMENDED		NEW	C	C	*	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	C	NEW	C	NEW	*	NEW	C	NEW	*	NEW	NEW	NEW	*	C									
	Skyfall	KWS Trinity	RGT Illustrious	Crusoe	Gallant	Solstice	KWS Siskin	KWS Lilli	Cordiale	KWS Barrel	Britannia	KWS Basset	Spyder	Zulu	RGT Conversion	Claire	Scout	Leeds	Myriad	Viscount	Revelation	Horatio	KWS Silverstone	Reflection	KWS Santiago	Evolution	Belgrade	KWS Kielder	Graham	Dickens	KWS Crispin	Costello	KWS Gator	JB Diego	Relay	Grafton	Average LSD (5%)	
End-use group	nabim Group 1									nabim Group 2					nabim Group 3					Soft Group 4				Hard Group 4														
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	E&W	UK	UK	UK	UK	N	N	UK	UK	UK	UK	E&W	UK	UK	E&W	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	
Fungicide-treated grain yield (% treated control)																																						
United Kingdom (10.4 t/ha)	101	101	100	98	97	96	105	104	97	105	104	103	101	101	100	98	97	104	102	102	101	101	106	105	105	105	105	104	104	104	104	103	102	102	100	100	3.2	
East region (10.3 t/ha)	101	101	101	98	97	94	106	103	97	104	104	104	102	101	98	98	94	104	101	101	101	101	106	104	105	105	105	103	103	102	104	103	101	101	100	100	2.0	
West region (10.4 t/ha)	103	100	101	99	98	96	106	105	98	104	103	103	102	100	99	97	95	103	100	102	99	100	106	106	104	103	106	102	107	104	105	104	101	103	100	100	2.8	
North region (9.5 t/ha)	103	104	[96]	96	95	98	[105]	108	96	[113]	106	[104]	[98]	105	105	-	98	107	106	105	103	104	[111]	107	107	107	[101]	108	[101]	108	[101]	103	107	102	102	101	3.9	
Main market options (The specific attributes of varieties are different so, whenever possible, varieties should not be mixed in store)																																						
UK breadmaking	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK distilling	-	-	-	-	-	-	-	-	-	-	-	-	-	[Y]	Y	[Y]	-	[Y]	[Y]	Y	Y	[Y]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ukp bread wheat for export	-	-	-	Y	Y	Y	[Y]	[Y]	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
uks soft wheat for export	-	-	-	-	-	-	-	-	-	[Y]	[Y]	[Y]	-	Y	-	Y	Y	[Y]	[Y]	[Y]	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grain quality																																						
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	0.3	
Protein content (%)	11.8	11.4	11.5	12.4	11.9	11.9	11.3	11.0	12.1	10.8	11.4	11.0	11.6	11.2	11.2	11.4	11.6	11.0	11.1	11.0	11.1	11.1	10.9	10.8	11.0	10.7	10.9	10.6	11.1	11.1	11.2	11.5	10.9	11.1	11.2	11.5	0.3	
Hagberg Falling Number	282	332	262	260	303	260	294	283	317	218	215	219	270	225	226	249	229	198	228	177	236	238	282	230	157	185	190	195	266	243	265	313	199	303	274	293	21	
Specific weight (kg/hl)	78.1	77.3	77.4	77.5	77.1	77.9	77.2	76.9	79.1	76.7	76.7	77.5	76.3	75.9	76.2	76.3	77.9	77.8	76.7	76.2	76.2	76.0	78.6	77.6	75.3	74.5	75.4	74.1	76.5	76.3	77.0	80.4	75.5	77.8	76.7	77.9	0.8	
Chopin alveograph W	274	266	[266]	228	232	201	192	208	[233]	103	100	97	[140]	96	60	-	87	81	102	[93]	82	83	[180]	-	-	198	-	-	141	[128]	-	205	-	-	-	-	31	
Chopin alveograph P/L	1.4	1.1	[1.3]	0.6	0.9	0.7	0.7	0.8	[0.8]	0.5	0.3	0.4	[0.5]	0.3	0.2	-	0.3	0.3	0.3	[0.3]	0.3	0.3	[1.5]	-	-	1.4	-	-	0.6	[0.5]	-	1.0	-	-	-	-	0.2	

Varieties no longer listed: Alchemy, Beluga, Conqueror, Cougar, Cubanita, Delphi, Icon, Invicta, KWS Cashel, KWS Croft, KWS Target, Monterey, Panorama and Twister

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

Varieties are in order of highest UK treated yield within end-use groups

Comparisons of varieties across regions are not valid.

UK = recommended for the UK

E&W = recommended for the East and West regions

N = recommended for the North region

* = variety no longer in trials

[] = limited data

Y = suited to that market

[Y] = may be suited to that market

P = to be verified by milling and baking of commercial samples by April 2016

LSD = Least significant difference

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

AHDB Recommended List - Table 1

Winter wheat 2016/17

YIELD, AGRONOMY AND DISEASE RESISTANCE

RECOMMENDED	NEW C C * NEW NEW NEW NEW * NEW C NEW * NEW NEW * C																												Average LSD (5%)																																																																																
	Skyfall			KWS Trinity			RGT Illustrious			Crusoe			Gallant			Solstice			KWS Siskin			KWS Lili			Cordiale			KWS Barrel			Britannia			KWS Basset			Spyder			Zulu			RGT Conversion			Claire			Scout			Leeds			Myriad			Viscount			Revelation			Horatio			KWS Silverstone			Reflection			KWS Santiago			Evolution			Belgrade			KWS Kielder			Graham			Dickens			KWS Crispin			Costello			KWS Gator			JB Diego			Relay			Grafton			
	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK		UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK																																																
End-use group	nabim Group 1			nabim Group 2			nabim Group 3			E&W			Soft Group 4			Hard Group 4			E&W			UK			UK			UK			E&W			UK			UK			UK			UK			UK			UK			UK			UK			UK			UK																																																
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK																																																				
Fungicide-treated grain yield (% treated control)																															3.2																																																																														
United Kingdom (10.4 t/ha)	101	101	100	98	97	96	105	104	97	105	104	103	101	101	100	98	97	104	102	102	101	101	101	106	105	105	105	105	104	104	104	104	104	103	102	104	103	102	104	103	101	101	100	100	2.0																																																																
East region (10.3 t/ha)	101	101	101	98	97	94	106	103	97	104	104	104	102	101	98	98	94	104	101	101	101	101	101	106	104	105	105	105	103	103	102	104	104	103	102	104	103	101	101	101	100	100	100	100	2.8																																																																
West region (10.4 t/ha)	103	100	101	99	98	96	106	105	98	104	103	103	102	100	99	97	95	103	100	102	99	100	106	106	104	103	106	102	107	104	105	104	101	103	100	100	100	100	100	100	100	100	100	100	3.9																																																																
North region (9.5 t/ha)	103	104	[96]	96	95	98	[105]	108	96	[113]	106	[104]	[98]	105	105	-	98	107	106	105	103	104	[111]	107	107	107	[101]	108	[101]	108	[101]	103	107	107	102	102	101	101	101	101	101	101	101	101																																																																	
Untreated grain yield (% treated control)																															5.8																																																																														
United Kingdom (10.4 t/ha)	87	82	90	85	68	67	96	83	71	80	85	84	91	82	82	76	80	78	80	77	87	79	87	88	75	87	94	72	94	84	95	92	79	84	85	80	5.8																																																																								
Agonomic features																															1.0																																																																														
Resistance to lodging without PGR	8	7	[8]	7	7	7	[7]	7	8	[8]	6	[7]	[6]	6	7	[7]	7	7	6	[7]	7	7	[5]	7	7	7	[6]	7	[7]	7	[6]	7	8	7	7	[8]	1.0																																																																								
Resistance to lodging with PGR	8	8	8	8	8	8	7	8	8	8	7	8	7	7	8	8	8	8	7	7	8	8	6	8	8	7	6	8	8	7	6	8	8	8	8	8	8	8	8	0.7																																																																					
Height without PGR (cm)	82	81	88	81	82	91	83	81	78	83	88	85	90	89	83	88	85	86	89	81	85	89	89	81	87	90	89	81	85	85	85	81	84	88	80	76	1.9																																																																								
Ripening (days +/- JB Diego, -ve = earlier)	0	+1	+2	+1	-2	0	+1	+2	-2	+1	+2	+1	+1	+1	0	+2	+2	+2	+1	+3	+1	0	0	+2	+2	-1	+3	0	0	+1	+1	0	+1	-1	0.7																																																																										
Resistance to sprouting	5	[7]	[6]	6	6	6	[5]	[7]	6	[6]	[6]	[6]	6	[4]	[4]	6	6	[6]	4	5	6	[6]	[6]	5	5	[3]	6	[7]	5	[6]	[7]	6	7	6	5	0.9																																																																									
Disease resistance																															1.8																																																																														
Mildew	6	9	7	7	6	4	9	9	6	7	6	4	9	7	8	4	6	3	6	[7]	6	7	8	7	4	6	9	5	8	8	9	8	6	6	6	7	1.8																																																																								
Yellow rust	6	9	9	9	4	3	9	7	5	8	8	9	8	9	8	6	9	7	8	5	9	5	8	6	6	6	9	7	3	8	9	9	8	7	9	6	0.7																																																																								
Brown rust	9	8	8	3	7	5	7	6	4	7	5	6	7	4	7	5	7	4	6	8	8	6	8	9	6	8	5	8	7	7	6	6	3	6	8	4	1.5																																																																								
Septoria nodorum	[5]	[5]	[6]	[6]	5	6	[6]	[6]	[5]	[5]	[5]	[6]	[6]	[6]	[5]	6	[6]	[5]	[6]	[6]	[5]	[5]	[6]	5	[6]	[6]	[5]	[6]	[5]	[6]	6	[5]	6	[5]	[5]	0.7																																																																									
Septoria tritici	6	5	6	6	4	5	7	6	5	5	6	5	6	6	5	5	6	5	5	5	6	5	5	5	4	6	6	5	7	5	6	5	5	6	5	6	5	0.6																																																																							
Eyespot	6@	6	[7]@	4	5	4	[4]	6	5	[5]	3	[5]	[4]	4	5	5	6	4	5	5	9@	5	[5]	5	5	5	[3]	6	[4]	4	[5]	[4]	4	4	4	4	6@	1.7																																																																							
Fusarium ear blight	7	6	6	6	5	6	6	6	5	6	6	6	6	6	6	6	6	7	6	6	7	6	6	6	6	6	6	6	7	6	6	6	6	6	6	6	5	0.4																																																																							
Orange wheat blossom midge	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 varieties across regions are not valid.

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

UK = recommended for the UK * = variety no longer in trials
E&W = recommended for the East and West regions [] = limited data
N = recommended for the North region

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

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

AHDB Recommended List - Table 1

Winter wheat 2016/17

SUPPLEMENTARY DATA

	RECOMMENDED		NEW	C	C	*	NEW	NEW	NEW	NEW	NEW	NEW	*	NEW	C	NEW	*	NEW	NEW	NEW	*	C																	
	Skyfall	KWS Trinity	RGT Illustrious	Crusoe	Gallant	Solstice	KWS Siskin	KWS Lili	Cordiale	KWS Barrel	Britannia	KWS Basset	Spyder	Zulu	RGT Conversion	Claire	Scout	Leeds	Myriad	Viscount	Revelation	Horatio	KWS Silverstone	Reflection	KWS Santiago	Evolution	Belgrade	KWS Kielder	Graham	Dickens	KWS Crispin	Costello	KWS Gator	JB Diego	Relay	Grafton	Average LSD (5%)		
End-use group	nabim Group 1						nabim Group 2			nabim Group 3			Soft Group 4				Hard Group 4																						
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	E&W	UK	UK	UK	UK	UK	N	N	UK	UK	UK	UK	E&W	UK	E&W	UK	UK	UK	UK	UK	UK	UK	UK	E&W	UK		
Breeder/ UK contact	RAGT	KWS	R2n	Lim	SyP	Lim	KWS	KWS	KWS	KWS	Lim	KWS	BA	Lim	RAGT	Lim	Sen	Mom	Lim	KWS	Lim	Lim	KWS	SyP	KWS	Sej	Sej	KWS	SyP	Sec	KWS	KWS	KWS	Bre	RAGT	KWS			
UK contact	RAGT	KWS	RAGT	Lim	Syn	Lim	KWS	KWS	KWS	KWS	103	103	103	100	101	98	99	96	103	102	99	101	101	106	104	103	104	103	102	106	102	105	102	102	102	102	102	99	102
Annual treated yield (% control)																																							
2011 (10.2 t/ha)	96	-	-	97	94	92	-	-	94	-	-	-	-	103	-	[95]	95	105	107	101	105	102	-	-	105	109	-	109	-	107	-	-	102	100	101	95	2.6		
2012 (8.8 t/ha)	104	103	-	96	103	97	-	107	100	-	105	-	-	101	107	[99]	94	108	101	108	99	103	-	114	106	104	-	98	-	103	-	107	102	102	97	102	3.1		
2013 (9.8 t/ha)	104	[99]	[102]	99	94	99	[102]	[101]	98	[103]	[101]	[101]	[103]	101	[97]	-	-	103	100	101	101	100	[103]	[101]	106	105	[108]	108	[103]	107	[102]	[102]	103	102	102	[99]	3.5		
2014 (11.5 t/ha)	102	100	100	100	95	95	104	104	97	103	103	103	100	101	98	99	96	103	102	99	101	101	106	104	103	104	103	102	106	102	105	102	102	102	102	99	102	2.6	
2015 (11.6 t/ha)	102	102	99	98	97	96	106	104	96	106	105	104	101	101	99	[96]	[98]	103	103	103	101	99	106	103	105	104	103	106	103	103	103	103	[102]	102	102	[101]	3.1		
Rotational position																																							
First cereal (10.8 t/ha)	101	101	100	98	97	95	105	105	97	105	103	103	102	101	100	98	96	104	102	102	101	101	106	106	105	104	105	104	105	104	105	104	101	102	100	100	3.4		
Second and more (9.5 t/ha)	103	102	101	98	96	97	105	102	97	105	105	104	100	101	100	-	96	104	101	101	101	101	106	104	106	106	105	106	102	104	102	102	102	105	102	102	99	3.9	
Sowing date (most trials were sown during October)																																							
Early sown (before 15th Sept) (10.8 t/ha)	-	103	[99]	[98]	96	94	-	-	-	[102]	-	[105]	[102]	-	[101]	99	96	[103]	-	101	102	104	-	-	105	-	-	104	-	102	-	[104]	103	102	102	100	7.1		
Late sown (mid-Nov to end-Jan) (9.9 t/ha)	99	[99]	-	98	[97]	[95]	-	[105]	97	-	[106]	-	-	[102]	[98]	-	-	105	106	-	[99]	[101]	-	[104]	106	104	-	104	-	105	-	[101]	103	[101]	[98]	-	5.3		
Soil type (about 50% of trials are on medium soils)																																							
Light soils (9.7 t/ha)	103	102	[98]	98	94	96	[106]	107	95	[109]	105	[102]	[101]	103	104	98	97	106	104	104	102	103	[110]	106	106	107	[100]	106	[102]	106	[102]	104	104	103	101	99	5.0		
Heavy soils (10.7 t/ha)	101	101	101	99	97	95	105	104	96	103	104	103	101	101	99	-	94	103	102	99	101	100	105	105	105	104	105	104	104	102	104	104	100	101	99	[99]	4.4		
Agronomic features																																							
Lodging % without PGR	1	3	1	2	2	2	3	2	1	1	11	1	8	8	4	3	1	2	7	2	2	3	17	2	4	4	13	2	3	4	7	3	1	2	2	1			
Lodging % with PGR	1	0	1	1	1	1	4	1	1	2	7	2	6	4	2	2	1	2	4	3	1	2	15	1	3	3	8	1	2	3	8	1	1	2	1	1			
Latest safe sowing date #	[End Feb]	[End Jan]	[Mid Feb]	End Jan	Mid Feb	End Jan	[End Jan]	[Mid Feb]	Mid Feb	[End Jan]	[Mid Feb]	[End Jan]	[End Jan]	[End Feb]	[End Jan]	End Feb	Mid Feb	End Feb	Mid Feb	Mid Feb	End Jan	Mid Feb	[End Jan]	[Mid Feb]	End Jan	[Mid Feb]	End Jan	[End Jan]	End Jan	[End Jan]	End Jan	[Mid Feb]	[End Jan]	Mid Feb	End Jan	End Jan	End Jan		
Speed of development to growth stage 31 (days +/- average)																																							
Early Sept sown	-6	[+1]	[+6]	+1	-2	-2	[-2]	[+6]	-2	[+7]	[0]	[-1]	[+6]	0	[+3]	+2	+3	-4	+3	+4	+6	-1	[-3]	[0]	+6	-2	[+7]	+7	[+6]	-1	[+3]	[+4]	+3	+2	-2	+5	8.5		
Early Oct sown	-3	[+2]	[0]	+1	-3	-2	[-5]	[+1]	-3	[+7]	[-2]	[-1]	[-2]	0	[+1]	+2	-1	-1	+6	+2	+4	-2	[-7]	[+1]	+3	-1	[-6]	+4	[+1]	-3	[-6]	[0]	+3	-1	+2	+4	6.0		
Early Nov sown	-1	[0]	[+1]	-3	0	0	[-4]	[+1]	-3	[+5]	[+1]	[-2]	[-2]	+2	[+2]	+3	+2	0	+3	+3	+3	+1	[-4]	[-1]	+2	+1	[0]	+3	[-2]	-1	[-6]	[-3]	+1	-2	+1	0	4.4		
Status in RL system																																							
Year first listed	14	15	16	12	09	02	16	15	04	16	15	16	16	14	15	99	09	13	13	09	13	12	16	15	11	14	16	13	16	13	16	15	12	08	12	09			
RL status	-	P2	P1	-	-	*	P1	P2	-	P1	P2	P1	P1	-	P2	-	-	-	-	-	-	*	P1	P2	-	-	P1	*	P1	-	P1	P2	*	-	-	-	-		

All yields on this table are taken from treated trials receiving a full fungicide and PGR programme
 C = yield control (for current table). For this table Invicta was also a yield control but is no longer listed
 UK = recommended for the UK
 E&W = recommended for the East and West regions
 N = recommended for the North region
 * = variety no longer in trials
 [] = limited data
 # = Latest safe sowing date is the advised latest sowing time to give a sufficient cold period for flowering.
 P1 = first year of recommendation
 P2 = second year of recommendation
 R2n = RAGT, France (www.ragt.co.uk)
 Lim = Limagrain UK (www.limagrain.co.uk)
 Mom = Momont, France
 RAGT = RAGT Seeds, UK (www.ragt.co.uk)
 SU = Saaten Union UK (www.saaten-union.co.uk)
 Sec = Secobra, France
 SyP = 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 5% confidence level.