

# HGCA Recommended List® winter wheat 2013/14

## MARKET OPTIONS AND GRAIN QUALITY

	RECOMMENDED			C	C	New	*				New New New			C	C				New New New New				New New				C	Average LSD (5%)												
	Crusoe	Gallant	Soistice	Chilton	KWS Sterling	Panorama	KWS Podium	Cordiale	Einstein	KWS Croft	Monterey	Delphi	Cocoon	Invicta	Tuxedo	KWS Target	Claire	Scout	Leeds	Myriad	Revelation	Cougar	Horatio	Viscount	Beluga	Gravitas	Denman	Alchemy	KWS Santiago	KWS Kielder	Dickens	Conqueror	KWS Gator	Relay	JB Diego	Grafton	Duxford	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	E	EW	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	EW	UK	UK	UK	UK	EW	UK	UK	UK	UK	3.7
UK treated yield (% control 10.2 t/ha)	98	98	96	100	100	100	99	98	95	104	102	102	102	101	101	101	97	97	106	105	104	104	104	103	103	103	103	98	107	106	106	105	104	103	103	100	100			
<b>Main market options (The specific attributes of varieties are different so, whenever possible, varieties should not be mixed in store)</b>																																								
UK breadmaking	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
UK biscuit, cake-making	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
UK distilling	-	-	-	-	-	-	-	-	-	-	-	[Y]	-	[Y]	[Y]	-	[Y]	-	Y	[Y]	Y	-	[Y]	Y	Y	[Y]	Y	[Y]	-	-	-	-	-	-	-	-	-			
ukp bread wheat for export	[Y]	Y	Y	[Y]	[Y]	[Y]	[Y]	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
uks soft wheat for export	-	-	-	-	-	-	-	-	-	[Y]	[Y]	[Y]	[Y]	[B]	[Y]	Y	Y	Y	[B]	[Y]	[B]	[B]	[B]	[B]	[Y]	[Y]	[B]	B	-	-	-	-	-	-	-	-	-			
<b>Grain quality</b>																																								
Endosperm texture	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard	Hard			
Protein content (%)	12.3	11.9	11.8	11.4	11.3	11.4	12.0	12.1	11.9	10.9	11.2	11.2	10.9	10.9	10.9	11.1	11.2	11.5	10.8	10.8	10.8	10.7	10.9	10.7	10.7	10.6	10.7	11.1	10.8	10.7	10.9	10.7	10.7	11.1	11.0	11.5	10.8	0.3		
Hagberg Falling Number	242	284	252	271	259	235	269	306	272	199	228	266	234	236	274	203	223	217	204	225	218	181	226	162	150	209	215	230	144	198	220	192	191	265	294	266	257	14		
Specific weight (kg/hl)	77.2	76.9	77.3	78.2	75.1	76.7	78.3	78.7	77.1	75.9	78.6	75.6	76.0	74.9	74.5	76.0	76.2	77.7	77.8	76.3	75.6	73.5	75.8	75.6	74.8	76.4	75.4	76.9	74.6	73.8	76.0	74.8	74.8	76.3	77.1	77.8	75.8	1.0		
1000 grain weight (g)	-	[56.1]	52.5	-	[51.5]	[51.3]	-	[48.3]	53.2	-	-	-	-	[48.8]	-	-	[49.6]	[48.2]	-	-	-	-	-	[51.5]	[57.5]	-	-	50.8	-	-	-	[49.6]	-	-	[51.9]	[51.6]	[48.9]	2.3		
Chopin alveograph W	219	218	204	211	215	[213]	256	[238]	174	88	85	98	106	75	109	102	-	91	71	92	71	70	76	[87]	92	92	70	-	-	-	[139]	-	-	-	-	-	-	29		
Chopin alveograph P/L	0.6	0.8	0.6	0.7	0.7	[0.7]	0.6	[0.9]	0.5	0.3	0.3	0.4	0.3	0.3	0.4	0.3	-	0.3	0.3	0.3	0.3	0.2	0.3	[0.3]	0.3	0.3	0.2	-	-	-	[0.4]	-	-	-	-	-	-	0.1		
<b>Status in RL system</b>																																								
Year first listed	12	09	02	13	10	09	11	04	03	13	13	13	11	10	11	11	99	09	13	13	13	13	12	09	10	11	11	06	11	13	13	10	12	12	08	09	08			
RL status	P2	-	-	P1	-	-	-	-	-	P1	P1	P1	-	-	-	-	-	-	P1	P1	P1	P1	P1	P2	-	-	-	-	-	P1	P1	-	P2	P2	-	-	-	-		

**Varieties no longer listed:** Battalion, Humber, Ketchum, Stigg, Torch and Warrior. Varieties are in order of highest UK treated yield within end-use groups

C = yield control (Oakley was also a control but is no longer on the Recommended List)  
 UK = recommended for the UK  
 E = recommended for the East region  
 EW = recommended for the East and West regions  
 Average LSD (least significant difference) 5%. Varieties that are more than one LSD apart are significantly different at the 5% confidence level

Sp = specific recommendation  
 [ ] = limited data  
 \* = variety no longer in trials

Y = suited to that market  
 [Y] = may be suited to that market

B = suitable for blending into export cargoes  
 [B] = may be suitable for blending into export cargoes  
 P1, P2 = first and second year of recommendation

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# HGCA Recommended List® winter wheat 2013/14

## YIELD, AGRONOMY AND DISEASE RESISTANCE

	RECOMMENDED			C	C	New	*			New	New	New	C	C				New	New	New	New	New				New	New	C			Average LSD (5%)									
	Crusoe	Gallant	Solstice	Chilton	KWS Sterling	Panorama	KWS Podium	Cordiale	Einstein	KWS Croft	Monterey	Delphi	Cocoon	Invicta	Tuxedo	KWS Target	Claire	Scout	Leeds	Myriad	Revelation	Cougar	Horatio	Viscount	Beluga	Gravitas	Denman	Alchemy	KWS Santiago	KWS Kielder	Dickens	Conqueror	KWS Gator	Relay	JB Diego	Grafton	Duxford	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	E	EW	UK	UK	UK	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)																																								
United Kingdom (10.2 t/ha)	98	98	96	100	100	100	99	98	95	104	102	102	102	101	101	101	97	97	106	105	104	104	104	103	103	103	103	98	107	106	106	105	104	103	103	100	100	3.7		
East region (10.5 t/ha)	99	99	95	99	100	101	100	99	95	103	103	103	103	101	100	100	98	97	106	104	103	101	104	103	103	103	103	98	107	105	104	106	104	102	103	100	101	1.8		
West region (10.3 t/ha)	100	99	96	100	100	100	98	99	94	99	101	101	101	101	100	99	96	97	104	100	100	99	103	101	104	101	102	99	106	100	104	104	103	102	103	101	99	2.9		
North region (10.1 t/ha)	93	96	96	104	99	99	101	97	98	[103]	105	103	100	102	102	102	96	98	[109]	[107]	[105]	[105]	105	105	103	103	103	98	106	[105]	[107]	108	106	103	101	102	100	3.4		
Untreated grain yield (% treated control in comparable trials)																																								
United Kingdom	89	82	78	84	82	88	82	83	82	90	90	88	85	88	89	84	81	87	87	91	96	97	89	87	84	88	88	87	85	86	91	84	88	90	90	89	82	6.0		
Agronomic features																																								
Resistance to lodging without PGR	7	7	8	7	8	8	8	7	6	5	6	7	6	7	7	7	8	7	7	8	7	6	6	8	6	6	7	7	7	6	5	7	8	7	9	8	1.5			
Resistance to lodging with PGR	8	8	8	8	8	8	8	8	7	6	7	8	6	8	8	8	7	8	7	7	8	8	7	8	7	7	7	7	8	7	7	8	7	7	9	9	1.0			
Height without PGR (cm)	82	83	92	88	79	89	81	79	85	89	90	86	94	90	83	84	88	86	88	90	86	86	89	82	79	89	82	91	87	83	87	85	86	82	88	76	89	1.8		
Ripening (days +/- Solstice, -ve = early)	+2	-2	0	+2	0	+2	0	-2	-1	+1	+2	+2	+4	+3	+2	+1	0	+2	+2	+2	+4	+3	+2	+1	0	+2	+1	+2	+3	0	+2	+2	+1	0	-1	+1	0.8			
Resistance to sprouting	-	[6]	[7]	-	[5]	[7]	-	[6]	[6]	-	-	-	-	[7]	-	-	[5]	[6]	-	-	-	-	-	[4]	[4]	-	-	[6]	-	-	-	[6]	-	-	[7]	[5]	[7]	1.1		
Disease resistance																																								
Mildew	9	5	4	6	7	7	6	6	6	7	6	5	7	5	7	4	4	5	3	5	7	6	7	7	4	6	5	7	5	4	7	3	6	6	5	7	6	1.1		
Yellow rust	9	5	4	7	8	8	7	6	6	8	6	9	8	8	9	8	6	9	7	8	9	8	6	4	5	5	4	6	5	4	8	6	9	9	8	6	5	0.9		
Brown rust	6	4	4	4	8	5	7	3	5	6	5	7	9	6	8	4	5	8	5	5	9	9	6	7	4	5	5	4	6	7	9	6	3	7	4	3	4	1.4		
Septoria nodorum	[6]	[5]	6	[5]	[5]	[5]	[5]	[5]	6	[5]	[5]	[6]	[5]	[6]	[6]	[6]	[5]	6	[6]	[5]	[6]	[6]	[5]	[7]	[5]	[5]	[6]	6	[6]	[6]	[5]	[6]	[6]	[5]	[5]	[5]	[5]	2.9		
Septoria tritici	7	5	5	5	5	6	5	5	5	5	5	5	5	5	6	5	6	5	5	5	6	7	6	5	5	6	5	6	5	5	5	4	5	6	5	5	5	0.7		
Eyespot	[5]	6	4	[4]	6	4	4	4	5	[6]	[5]	[4]	6	5	6	6	5	8	[5]	[7]	[8]@	[4]	[6]	6	7	5	5	6	3	[7]	[4]	3	[4]	[4]	5	8@	5	1.8		
Fusarium ear blight	6	5	6	6	6	7	6	6	6	6	6	7	7	6	6	6	6	6	7	6	7	6	6	6	6	6	6	7	6	6	6	6	6	6	6	6	5	6	1.8	
Orange wheat blossom midge	-	-	-	-	-	-	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 (eg high resistance)

Comparisons of varieties across regions are not valid

UK = recommended for the UK

Sp = specific recommendation

E = recommended for the East region

EW = recommended for the East and West regions

C = yield control (Oakley was also a control but is no longer on the Recommended List)

\* = variety no longer in trials

[ ] = limited data

R = believed to be resistant to orange wheat blossom midge (OWBM) but this has not been verified in RL tests

@ Revelation and Grafton are believed to carry the *Pch1* Rendezvous resistance gene to eyespot but this has not been verified in RL tests

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

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