



RECOMMENDED LIST WINTER BARLEY 2003

MARKET OPTIONS AND GRAIN QUALITY

	C	P1	C	*	P2		P1	P2	P2	C	*	*		C	*	*	C	P1	P2	*	Average LSD (5%)			
Variety type	Pearl	Kestrel +	Regina	Vanessa	Fanfare	Diamond	Leonie +	Cannock	Carat	Scylla	Haka	Sumo	Opal	Antonia	Pastoral	Jewel	Heligan	Vertige	Siberia	Sequel	Pict	Angela	Muscat	Average LSD (5%)
	Malting varieties							Two-row feed varieties										Six-row varieties						
Scope of recommendation	UK	Specific	UK	South	UK	South	Specific	UK	UK	UK	UK	UK	UK	UK	North	UK	UK	UK	UK	UK	UK	UK	North	
UK treated yield as % control (8.0 t/ha)	98	97	97	97	96	95	94	104	102	101	100	100	99	98	98	97	95	95	108	107	107	104	102	3.2
Main market options #																								
IoB malting approval in the South	F		F		F	P																		
IoB malting approval in the North	F																							
Under test for IoB approval																								
BCE guide to overseas malting	Y		Y	Y																				
Pearling											?					Y								
Year first listed	99	03	96	00	95	02	01	03	02	02	01	01	01	00	89	98	99	98	00	03	02	99	96	
Grain quality																								
Specific weight (kg/hl)	69.5	69.9	68.0	69.3	70.9	67.0	68.2	65.5	70.6	69.1	70.6	68.1	69.9	69.3	68.7	69.9	69.7	69.6	63.1	69.3	69.7	64.3	67.4	0.9
Sieving % through 2.25 mm	1.5	1.1	2.5	1.1	2.7	2.8	5.9	4.0	0.6	1.8	1.3	3.2	1.4	1.4	2.4	1.4	1.6	1.5	3.1	4.7	7.5	4.3	3.6	1.3
Sieving % through 2.5 mm	5.6	7.0	9.0	3.7	10.1	9.8	20.9	12.2	3.2	9.2	4.4	12.9	4.7	5.5	9.0	4.7	5.8	5.3	14.0	17.3	25.5	17.5	14.5	3.2
Nitrogen content (%)	1.7	1.6	1.6	1.7	1.6	1.7	1.7	1.6	1.6	1.7	1.7	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.6	1.6	0.07

P1, P2 first and second year of recommendation

F = Full IoB approval

(Y) = May be suited to that market

* Variety no longer in trials

P = Provisional IoB approval

? = Further information required

C = Yield control

Y = Suited to that market

Average LSD 5%. Varieties that are more than one LSD apart are significantly different at the 5% confidence level.

+ Kestrel and Leonie are specific recommendations for growing for malting on BaYMV infected ground. Leonie is also only recommended for the South.

Two varieties, Pedigree and Swallow have been deferred until June 2003 when further malting information will be available.

Table updated July 2003 to show latest position for IoB and BCE export options



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YIELD, AGRONOMY AND DISEASE RESISTANCE

	C	P1	C	*	P2		P1	P2	P2	C	*	*		C	*	*	C	P1	P2	*	Average LSD (5%)			
	Pearl	Kestrel +	Regina	Vanessa	Fanfare	Diamond	Leonie +	Cannock	Carat	Scylla	Haka	Sumo	Opal	Antonia	Pastoral	Jewel	Heiligan	Vertige	Siberia	Sequel	Pict	Angela	Muscat	
Variety type	Malting varieties							Two-row feed varieties									Six-row varieties							
Scope of recommendation	UK	Specific	UK	South	UK	South	Specific	UK	UK	UK	UK	UK	UK	UK	North	UK	UK	UK	UK	UK	UK	UK	North	
Fungicide treated grain yield as % treated control																								
United Kingdom (8.0 t/ha)	98	97	97	97	96	95	94	104	102	101	100	100	99	98	98	97	95	95	108	107	107	104	102	3.2
North region (8.1 t/ha) #	101	94	101	100	98	96	95	107	103	105	100	101	101	101	101	100	98	97	109	109	108	107	103	4.8
Dry (East) region (8.0 t/ha) #	99	100	99	99	97	98	96	104	102	101	102	102	101	101	98	98	96	96	109	108	108	105	102	3.8
Wet (West) region (7.7 t/ha) #	100	98	98	98	99	97	94	103	104	101	101	100	100	99	98	99	97	96	109	110	108	105	104	3.1
Untreated grain yield as % treated control in comparable trials																								
United Kingdom	77	74	73	73	76	72	73	76	76	77	81	75	79	80	71	76	73	75	84	83	82	84	76	4.1
Agronomic features																								
Resistance to lodging	6	7	8	7	5	7	8	7	8	8	8	7	8	6	7	7	8	8	8	8	6	7	6	1.2
Straw height (cm)	105	94	99	100	96	98	94	100	91	92	99	96	92	105	96	95	98	93	97	110	110	110	112	2
Ripening (+/- Pearl, -ve = earlier)	0	-2	0	-1	0	-1	-1	+1	-2	-1	-2	0	-2	-1	-2	-2	-2	-3	-4	-3	-3	-3	-3	0.8
Winter hardiness	4	8	6	7	6	7	7	4	5	7	7	4	6	6	7	4	5	7	5	6	6	6	6	2.3
Disease resistance																								
Mildew	8	3	3	8	6	7	8	3	7	6	8	7	7	5	3	6	3	6	6	8	6	8	7	1.2
Yellow rust	6	3	2	3	7	8	4	8	5	6	8	5	6	6	9	8	5	6	4	5	6	6	5	1.5
Brown rust	6	8	7	3	7	7	6	4	4	6	8	7	5	7	6	6	5	7	5	5	6	8	6	1.0
<i>Rhynchosporium</i>	8	8	7	8	8	7	9	8	7	6	5	5	8	8	7	8	7	5	7	8	8	8	8	(1.0)
Net blotch	5	7	5	7	7	7	9	9	7	8	8	8	6	8	8	7	7	8	5	7	6	4	5	(1.8)
BaYMV		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

R = resistant to BaMMV and to BaYMV strain 1

Average LSD 5%. Varieties that are more than one LSD apart are significantly different at the 5% confidence level.

() bracketed LSDs are approximate

+ Kestrel and Leonie are specific recommendations for growing for malting on BYMV infected ground. Leonie is also only recommended for the South.

The regional yields include supplementary trials (1997 to 2001) which may not have received the full fungicide protocol. Comparisons of variety performance across regions are not valid.



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SUPPLEMENTARY DATA

	C	P1	C		*	P2		P1	P2	P2	C		*	*		C	*	*	C	P1	P2		*	Average LSD (5%)	
	Pearl	Kestrel	Regina	Vanessa	Fanfare	Diamond	Leonie	Cannock	Carat	Scylla	Haka	Sumo	Opal	Antonia	Pastoral	Jewel	Heiligan	Vertige	Siberia	Sequel	Pict	Angela	Muscat		
Variety type	Malting two-row varieties							Two-row feed varieties									Six-row varieties								
Scope of recommendation	UK	Specific	UK	South	UK	South	Specific	UK	UK	UK	UK	UK	UK	UK	North	UK	UK	UK	UK	UK	UK	UK	North		
Breeder/ Agent																									
Breeder	Nick	Adv	Bru	Bru	Adv	Nick	Nord	Nick	Nick	CPB	CPB	NFC	Nick	Sec	Sec	Nick	CPB	Ser	Sec	NFC	CPB	INRA	CPB		
Agent	Nick	Adv	BSH	Bcar	Adv	Nick	Adv	Nick	Nick	CPB	CPB	NFC	Nick	Adv	Nick	Nick	CPB	CPB	Dal	NFC	CPB	Nick	CPB		
Annual yields as % treated control																									
1998 treated (7.7 t/ha)	96	-	97	95	94	-	101	-	-	-	102	101	99	99	94	97	95	95	108	-	-	101	98	3.9	
1999 treated (8.4 t/ha)	98	-	98	97	96	98	94	-	101	100	98	102	98	97	99	99	94	95	107	-	108	103	101	2.9	
2000 treated (8.5 t/ha)	99	102	97	97	98	97	94	105	105	104	99	100	99	98	98	97	96	95	108	107	109	105	102	3.0	
2001 treated (7.6 t/ha)	96	101	97	98	100	98	94	108	102	100	101	100	97	100	100	99	97	97	108	109	106	106	105	4.1	
2002 treated (7.6 t/ha)	100	93	96	98	95	91	86	100	101	101	101	97	100	98	98	95	94	92	107	107	104	103	106	3.0	
Soil type (about 50% of trials are medium soils)																									
Light soils (T, 7.7 t/ha)	99	100	98	98	98	97	95	104	103	102	101	102	99	100	99	99	97	96	109	110	108	107	104	3.6	
Heavy soils (T, 8.5 t/ha)	99	97	98	97	97	93	93	96	106	104	103	102	102	98	99	98	96	97	110	110	106	106	104	6.7	
Agronomic features																									
Lodging % without PGR	4.4	2.3	1.9	3.0	10.2	3.1	1.5	8.1	3.7	2.2	3.2	2.5	0.8	3.9	2.9	3.3	0.8	2.1	0.7	2.9	7.0	2.6	7.0		
Lodging % with PGR	3.4	2.8	1.6	2.3	4.3	1.8	0.7	1.4	0.8	1.2	1.3	1.6	0.5	3.3	2.2	2.1	1.5	1.4	0.9	0.8	2.0	1.8	2.6		
Malting quality																									
Hot water extract (l deg/kg)	306.1	306.9	304.3	304.9	307.0	308.6	306.2	300.7	303.0	299.3	298.8	300.5	305.7	295.1	295.1	300.4	295.2	299.8	291.0	301.7	297.9	294.9	297.6	2.8	
Soluble nitrogen ratio (%)	36.3	36.8	38.5	35.9	34.8	39.9	37.2	38.5	35.0	32.4	31.3	31.7	36.3	24.7	28.7	34.1	32.6	37.0	32.7	34.0	31.9	31.7	33.0	2.1	
Diastatic power (loB dry)	118	99	110	107	78	80	118	108	116	85	94	76	119	115	*	81	91	*	104	107	95	79	97	14.1	
Wort beta glucan (mg/l)	162	169	148	240	159	138	197	235	*	177	*	*	153	*	*	*	*	*	170	311	*	*	225	117	
Viscosity (mPa/s)	1.54	1.56	1.55	1.57	1.54	1.50	1.56	1.66	1.55	1.60	1.76	1.61	1.55	1.84	1.64	1.54	1.71	1.64	1.93	1.71	1.86	1.81	1.65	0.08	
Friability (%)	86	78	82	77	85	80	82	72	74	73	66	75	82	56	63	78	59	72	56	73	68	45	69	5.8	
Homogeneity (%)	97	94	96	93	96	93	96	87	90	92	87	95	95	76	86	93	80	90	85	89	90	77	89	4.8	
Dormancy (4 ml)	81	96	98	100	40	90	100	99	84	93	*	*	84	*	50	82	74	92	*	99	94	*	91	19.1	
Dormancy (8 ml)	21	15	37	56	11	33	37	45	11	30	*	*	19	*	22	17	21	26	*	54	28	*	33	20.8	

All yields are taken from treated trials receiving a full fungicide and PGR programme

Key to breeder/agent codes:

Adv = Advanta Seeds UK (www.advantaseeds.co.uk)
 Bcar = Banks Cargill Agriculture Ltd (www.banksag.co.uk)
 Bru = Breun, Germany
 BSH = British Seed Houses Ltd (www.britishseedhouses.com)

CPB = CPB Twyford Ltd (www.cpb-twyford.co.uk)
 Dal = Dalgety Arable (www.dalgety.co.uk)
 INRA = INRA, France
 NFC = New Farm Crops (www.syngenta-crop.co.uk)

Nick = Nickerson (UK) Ltd (www.nickersonuk.com)
 Nord = Nordsaat Saatzucht, Germany
 Sec = Secobra, France
 Ser = Serasem, France