

SUGAR BEET RL VARIETIES FOR 2018

Rz1 rhizomania varieties		Cayman	Thor	Springbok	Haydn	Hornet	Stingray	Pasteur	NEW Daphna	NEW Senada KWS	NEW Landon	Darnella KWS	Cantona KWS	Alisha KWS	BTS 860	Sabatina KWS	BTS 470	NEW BTS 3325	Salamanca KWS	NEW Degas	Leesha KWS	NEW Bloodhound	Flixtor	Firefly	Aurora	Sandra KWS
Status: (C) = control variety ¹		R(C)	R	R(C)	R(C)	R(C)	R	R(C)	PR1	PR1	PR1	PR2	PR2	PR2	PR2	PR3	PR3	PR1	PR3	PR1	PR3	PR1	PR2	PR2	PR3	S
CROP YIELDS		MEAN																								
Adjusted tonnes % of C=100% ²	113.6 t/ha	100.4	100.2	100.2	100.0	100.0	100.0	99.4	106.9	105.6	104.7	104.3	104.2	104.2	103.9	103.8	103.5	103.0	102.7	102.0	101.2	100.8	100.4	100.4	100.1	98.3
Sugar yield % of C=100% ²	17.3 t/ha	100.5	100.4	100.1	100.0	100.0	100.0	99.4	107.2	105.9	104.4	104.7	104.2	103.9	103.8	103.9	103.5	102.9	102.9	101.9	100.9	101.0	101.2	100.7	100.4	98.3
Root yield % of C=100% ²	96.5 t/ha	101.2	101.7	99.6	100.1	99.8	100.0	99.3	109.1	107.5	102.7	106.2	103.8	102.2	102.7	105.1	103.2	101.8	103.4	101.1	98.2	102.0	105.2	102.1	102.4	98.2
Sugar content %	18.0%	17.8	17.7	18.0	17.9	18.0	17.9	18.0	17.7	17.7	18.2	17.7	18.0	18.2	18.1	17.7	18.0	18.1	17.8	18.1	18.4	17.8	17.3	17.7	17.6	18.0
BOLTERS per 100,000 plants/ha		MEAN																								
"X" Unsuitable for sowing BEFORE Mid March	-	-	X	-	X	-	-	-	-	X	X	X	-	X	-	-	X	-	-	-	X	-	-	-	-	X
Early sowing, before 5 March ³	6,745/ha	6,031	4,070	10,169	3,808	9,990	9,093	5,730	5,516	15,218	20,086	18,454	7,590	11,474	8,572	8,441	13,997	3,487	9,209	7,570	12,335	2,882	5,471	4,058	9,162	23,044
Normal sowing	45/ha	54	38	96	7	52	50	14	72	161	62	64	89	57	7	21	102	35	47	0	156	0	14	45	72	122
PRE-GAPPING ESTABLISHMENT																										
Control	100%	102.2	99.5	99.5	99.0	99.0	100.0	100.3	97.4	96.3	102.2	100.5	99.7	98.3	101.0	99.0	101.7	99.9	103.3	97.5	100.7	101.1	98.6	99.9	100.7	98.0
DISEASE (1 = high leaf infection 9 = very low leaf infection) ⁴																										
Rust	5	5	7	6	5	5	6	4	(7)	(7)	(7)	(3)	(6)	(7)	(6)	6	6	(7)	6	(5)	7	(4)	(3)	(3)	5	5
Powdery mildew	4	(4)	(2)	(3)	(4)	(4)	(4)	(4)	(6)	(7)	(4)	(5)	(6)	(6)	(5)	(5)	(6)	(5)	(6)	(3)	(6)	(3)	(4)	(5)	(2)	(5)
OTHER CLAIMS																										
AYPR (Aggressive rhizomania)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y
BCN (as claimed by the Breeder)	-	Y	-	-	-	-	-	-	Y	-	-	-	Y	-	-	-	-	-	-	-	Y	-	Y	-	Y	-
RL SYSTEM																										
Year first listed		2011	2012	2013	2013	2014	2013	2011	2017	2017	2017	2016	2016	2016	2016	2015	2015	2017	2015	2017	2015	2017	2016	2016	2015	2013
BREEDER/UK CONTACT ⁵																										
Breeder		SV	STR	SV	STR	SV	SV	STR	KWS	KWS	STR	KWS	KWS	KWS	BTS	KWS	BTS	BTS	KWS	STR	KWS	SV	SYN	SV	SV	KWS
UK Agent		SV	STR	SV	STR	SV	SV	STR	KWS	KWS	STR	KWS	KWS	KWS	LG	KWS	LG	LG	KWS	STR	KWS	SV	SYN	SV	SV	KWS

¹ Newly listed varieties (PR1/PS1) have results from three years using approximately 1 kg breeders' seed. Thereafter commercial seed should be used in RL trials. (See supplementary table).

² Yields based on an average plant population of 106,000 plants/ha in these trials. Differences in yields of less than 3% should be treated with reserve.

³ The ratings from normal sowings are applicable for sowing after mid-March in most seasons.

⁴ Observations taken from inoculated trials not taken to yield.

⁵ BTS = Betaseed, KWS = KWS UK Ltd, LG = Limagrain UK Ltd, STR = Strube Sugar Beet UK Ltd, SV = SESVanderHave UK Ltd, SYN = Syngenta UK Ltd.

Brackets indicate figure derived from fewer than 3 years of data

SUPPLEMENTARY DATA FOR THE SUGAR BEET RL VARIETIES FOR 2018

Rz1 rhizomania varieties 3-year data			Cayman	Thor	Springbok	Haydn	Hornet	Stingray	Pasteur	Daphna	Senada KWS	Landon	Darnella KWS	Cantona KWS	Alisha KWS	BTS 860	Sabatina KWS	BTS 470	BTS 3325	Salamanca KWS	Degas	Leesha KWS	Bloodhound	Fixter	Firefly	Aurora	Sandra KWS		
			R(C)	R BCN	R(C)	R(C)	R(C)	R	R(C)	PR1 BCN	PR1	PR1	PR2	PR2 BCN	PR2	PR2	PR2	PR3	PR3	PR1	PR3	PR1	PR3 BCN	PR1	PR2 BCN	PR2	PR2	PR3 BCN	S AYPR
ADJUSTED TONNES (Gapped Trials)			T's per ha																										
% Mean of (C)	Mean	113.6	100.4	100.2	100.2	100.0	100.0	100.0	99.4	106.9	105.6	104.7	104.3	104.2	104.2	103.9	103.8	103.5	103.0	102.7	102.0	101.2	100.8	100.4	100.4	100.1	98.3		
	2016	104.8	101.6	100.8	101.5	98.8	101.2	100.5	96.9	106.7	105.0	105.4	103.5	103.2	102.8	103.6	103.0	103.7	103.3	101.9	103.0	102.3	99.9	101.9	101.0	101.9	99.8		
	2015	114.3	100.2	99.4	98.5	101.9	98.7	99.7	100.7	106.6	106.9	104.5	104.8	103.4	104.2	103.6	101.2	102.6	101.9	101.9	99.8	98.9	99.8	101.1	99.7	99.0	96.3		
	2014	122.2	99.3	100.2	100.5	99.4	100.1	99.9	100.7	107.5	105.0	104.3	104.8	106.0	105.5	104.5	106.6	104.2	103.7	104.3	102.8	102.1	102.6	98.5	100.5	99.2	98.5		
SUGAR YIELD (Gapped Trials)			T's per ha																										
% Mean of (C)	Mean	17.3	100.5	100.4	100.1	100.0	100.0	100.0	99.4	107.2	105.9	104.4	104.7	104.2	103.9	103.8	103.9	103.5	102.9	102.9	101.9	100.9	101.0	101.2	100.7	100.4	98.3		
	2016	16.0	101.6	101.1	101.6	98.8	101.1	100.5	96.9	107.2	105.6	105.0	104.2	103.3	102.6	103.7	103.3	103.9	103.4	102.3	102.9	102.9	102.9	101.9	100.9	101.2	102.2		
	2015	17.4	100.4	99.9	98.4	101.8	98.6	99.7	100.8	106.9	107.2	104.2	105.0	103.4	103.9	103.5	101.5	102.7	101.7	101.9	99.8	98.7	99.9	101.6	100.0	99.2	96.3		
	2014	18.6	99.4	100.2	100.3	99.5	100.2	99.8	100.6	107.5	105.1	104.1	104.9	105.8	105.2	104.2	106.7	104.0	103.3	104.3	102.6	101.7	102.7	99.2	100.8	99.7	98.5		
ROOT YIELD (Gapped Trials)			T's per ha																										
% Mean of (C)	Mean	96.5	101.2	101.7	99.6	100.1	99.8	100.0	99.3	109.1	107.5	102.7	106.2	103.8	102.2	102.7	105.1	103.2	101.8	103.4	101.1	98.2	102.0	105.2	102.1	102.4	98.2		
	2016	89.4	102.2	102.9	101.5	99.0	100.4	100.2	96.8	110.2	108.6	103.1	107.4	103.5	101.4	104.3	105.1	104.5	103.5	103.9	102.5	100.5	101.9	108.0	102.8	104.1	100.2		
	2015	97.1	101.6	102.1	98.1	101.4	97.7	100.4	101.3	108.8	108.3	102.3	105.9	103.5	102.0	102.6	102.9	103.1	100.6	101.9	99.4	96.0	100.8	104.7	101.3	100.6	96.1		
	2014	103.7	99.9	100.1	99.2	99.9	101.0	99.5	100.1	108.2	105.8	102.5	105.3	104.5	103.0	101.4	107.1	102.3	101.1	104.4	101.2	97.9	102.9	103.1	102.0	102.3	98.1		
SUGAR CONTENT (Gapped Trials)			Mean of (C)																										
Sugar %	Mean	18.0	17.8	17.7	18.0	17.9	18.0	17.9	18.0	17.7	17.7	18.2	17.7	18.0	18.2	18.1	17.7	18.0	18.1	17.8	18.1	18.4	17.8	17.3	17.7	17.6	18.0		
	2016	17.9	17.8	17.6	17.9	17.9	18.0	17.9	17.9	17.4	17.4	18.2	17.4	17.8	18.0	18.3	18.1	17.7	17.9	18.2	18.0	18.1	18.4	17.8	17.1	17.6	17.8		
	2015	18.0	17.8	17.6	18.0	18.0	18.1	17.8	17.9	17.7	17.8	18.3	17.8	18.0	18.3	18.1	17.7	17.9	18.2	18.0	18.1	18.4	17.8	17.4	17.7	17.7	18.0		
	2014	18.0	18.0	18.1	18.3	18.0	17.9	18.1	18.1	17.9	17.9	18.3	18.0	18.3	18.4	18.5	18.0	18.3	18.4	18.0	18.3	18.7	18.0	17.4	17.8	17.6	18.2		
EARLY SOWN BOLTERS			Mean of (C)																										
"X" Unsuitable for sowing BEFORE Mid March			-																										
Bolters/ha (per 100,000 plants)	Mean	6,745	6,031	4,070	10,169	3,808	9,990	9,093	5,730	5,516	15,218	20,086	18,454	7,590	11,474	8,572	8,441	13,997	3,487	9,209	7,570	12,335	2,882	5,471	4,058	9,162	23,044		
	2016	8,099	4,834	10,668	12,122	5,776	13,622	20,281	7,260	8,226	22,878	43,361	25,182	14,382	22,768	11,388	11,560	15,482	8,506	11,764	12,836	16,418	4,585	8,977	6,834	9,351	28,444		
	2015	10,272	10,402	3,355	15,181	4,445	17,880	10,169	8,572	8,795	25,915	24,003	22,823	11,647	15,181	11,445	16,140	28,174	4,297	20,677	10,695	22,605	3,943	6,998	6,345	11,618	30,333		
	2014	2,963	3,853	1,163	4,741	1,692	2,917	2,508	2,342	1,535	4,309	5,730	9,447	1,564	3,027	3,989	2,133	4,794	432	2,027	2,184	3,667	820	1,884	841	6,586	12,459		
NORMAL SOWN BOLTERS			Mean of (C)																										
Bolters/ha (per 100,000 plants)	Mean	45	54	38	96	7	52	50	14	72	161	62	64	89	57	7	21	102	35	47	0	156	0	14	45	72	122		
	2016	38	47	21	89	19	19	33	19	189	117	35	23	127	62	0	16	52	26	21	0	102	0	35	19	0	47		
	2015	54	30	107	117	0	130	81	0	0	416	114	211	140	59	28	54	312	28	84	0	455	0	84	189	250			
	2014	45	86	0	91	0	28	45	19	0	28	52	0	0	50	0	0	0	52	47	0	0	0	45	72	109			
PRE-GAPPING ESTABLISHMENT			Mean of (C)																										
Plant population as % mean of (C) Seed sown at 9cm spacing	Mean	197	102.2	99.5	99.5	99.0	99.0	100.0	100.3	97.4	96.3	102.2	100.5	99.7	98.3	101.0	99.0	101.7	99.9	103.3	97.5	100.7	101.1	98.6	99.9	100.7	98.0		
	2016	194	102.3	100.3	101.9	99.0	98.6	100.1	98.2	100.9	98.6	104.0	101.4	99.7	97.4	105.4	97.3	101.3	99.0	102.7	101.0	101.3	101.4	101.1	100.4	99.8	95.6		
	2015	200	103.5	100.4	98.6	97.4	98.0	101.7	102.4	100.4	96.7	100.7	99.6	99.2	98.4	98.9	99.0	102.3	99.4	104.8	96.9	100.9	102.2	96.9	99.4	100.9	100.2		
	2014	198	100.8	97.7	98.0	100.5	100.5	98.4	100.3	91.0	93.7	102.0	100.7	100.2	99.0	98.7	100.8	101.6	101.4	102.5	94.6	99.8	99.6	97.8	99.9	101.3	98.2		
RUST			Mean of (C)																										
% leaf infection Natural & inoculated trials (data after statistical analysis)	Mean	9	9	4	7	9	7	7	12	4	5	3	18	5	4	6	5	6	4	7	8	3	11	15	18	8	9		
	2016	7	8	3	4	8	3	4	12	3	4	3	27	4	2	4	7	3	3	6	6	2	9	15	14	10	12		
	2015	14	13	5	11	14	13	12	18	-	-	-	18	8	7	9	7	12	9	9	6	-	20	25	10	12			
	2014	8	9	7	7	8	8	6	9	-	-	-	-	-	-	-	4	5	-	6	-	3	-	-	-	8	7		
POWDERY MILDEW			Mean of (C)																										
% leaf infection Natural & inoculated trials (data after statistical analysis)	Mean	6	6	18	7	6	7	7	5	1	0	6	2	2	2	3	3	1	2	2	12	2	10	6	3	14	3		
	2016	66	58	83	65	61	75	67	69	11	6	43	20	15	10	12	20	6	19	13	79	9	69	43	22	85	19		
	2015	2	2	9	3	2	2	2	1	-	-	-	0	0	0	1	1	0	-	0	-	0	-	2	0	5	1		
	2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Data in bold from commercial seed.

"-" denotes insufficient or no data

Additional data tables for impurities and vernalisation days experienced by the early sown bolting trials are available in the variety section of the BBRO website (bbro.co.uk)