

Technical Bulletin

Genes that fit *your* farm.

SeCan

Canada's Seed Partner

AC[®] Unity VB



Canada Western Red Spring Wheat

Description:

AC[®] Unity VB is an awned CWRS variety and it is one of the first CWRS varieties to provide tolerance to the orange wheat blossom midge. AC[®] Unity VB has shown very high grain yield, improved leaf rust resistance and maturity equal to AC Barrie, along with very good sprouting resistance. AC[®] Unity VB is well-adapted across the western Canadian Prairies.

Certified seed of AC[®] Unity VB will be sold as a varietal blend made up of 90% AC[®] Unity VB and 10% AC[®] Waskada. Blending with the midge susceptible variety AC[®] Waskada provides a refuge area for non-virulent midge to survive at low levels, thereby extending the useful life of the *Sm1* midge tolerance gene.

Parentage:

McKenzie*3//BW174*2/Clark (Clark is a Soft Red Winter Wheat and is the source of midge tolerance)

Strengths:

- Reduced wheat midge damage due to the *Sm1* midge tolerance gene
- Reduced sawfly damage due to partially solid-stem, similar to McKenzie
- Grain yield 116% of AC Barrie, 106% of Superb over all sites in 2004 to 2006 Coop Registration trials

- Maturity equal to AC Barrie, 2 to 3 days earlier than Superb
- Very good sprouting resistance (high falling number and low sprouting score)
- Very good leaf and stem rust resistance
- Very good resistance to common bunt

Neutral Traits:

- Grain protein potential similar to AC Barrie and McKenzie, higher than Superb
- Height 1 cm taller than AC Barrie, 9 cm taller than Superb
- Very high test weight and medium kernel weight, similar to McKenzie

Weaknesses:

- Straw strength similar to McKenzie, weaker straw than AC Barrie and Superb
- Poor loose smut resistance, similar to McKenzie
- Poor rating for FHB resistance

Breeder:

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Cereal Research Centre
Agriculture and Agri-Food Canada
Winnipeg, MB

2004-2006 Central Bread Wheat Cooperative Trials - Registration Data

Variety	Yield (% AC Barrie)	Maturity (days)	Lodging 1 = erect 9 = flat	Height (cm)	Test Weight (kg/hl)	Kernel Weight (mg/kernel)	Grain Protein (%)	Sprout Score 1 = best	FHB Resistance Rating
AC Barrie	100	100	2.0	96	78	33.4	13.8	4.2	F
Katepwa	98	98	2.8	99	77	32.1	13.6	5.6	F
McKenzie	110	99	2.9	97	78	31.8	13.8	3.0	F
CDC Teal	104	99	2.2	94	77	33.0	14.2	5.9	VP
Superb	109	103	1.8	88	78	36.0	12.9	3.2	P
AC[®] Unity VB*	116	100	2.8	97	79	32.8	13.8	2.5	P

* Varietal Blend F=Fair; P=Poor; VP=Very Poor

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For more information, call 1-800-665-7333 or visit www.secan.com

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2013 Seed Manitoba- Wheat Comparison

Variety	Site Years Tested	Yield bu/ac	Protein %	Relative Maturity (days)	Height	Spike Awned	Resistance to:							
							Lodging	Sprouting	Loose Smut	Common Bunt	Leaf Spot	Stem Rust	Leaf Rust	FHB
AC Barrie	164	55	14.5	99	37"	N	G	G	MR	I	MS	MR	MS	I
5602HR	90	60	14.9	1	0	Y	F	F	R	MR	I	R	R	MR
AC® Fieldstar VB*	43	60	14.6	0	+1	Y	F	VG	I	I	I	MR	R	I
AC® KANE	78	58	14.6	+1	-2	Y	G	VG	MS	I	I	R	R	I
Harvest	61	58	14.3	-1	-2	N	VG	VG	MR	S	MS	R	MR	S
AC® Shaw VB*	40	60	14.3	0	2	N	G	G	S	MR	MS	R	MR	MS
AC® Vesper VB*	27	61	14.5	0	-1	Y	G	F	I	S	I	MR	R	I
AC® Unity VB*	53	62	14.2	0	0	Y	F	G	MS	R	I	MR	R	I

*Varietal Blend F=Fair; G=Good; VG=Very Good R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

2013 Varieties of Grain Crops for Saskatchewan - Wheat Comparison

Variety	Years Tested	Yield as % of AC Barrie				Protein	Resistance to:								Relative Maturity (days)	Head Awnedness	Seed Weight (mg)	Test Weight (kg/hl)	Height (cm)
		Area 1 & 2	Area 3 & 4	Irrigation			Lodging	Sprouting	Stem Rust	Leaf Rust	Stripe Rust	Loose Smut	Bunt	Leaf Spot					
AC Barrie	11	100	100	100	14.9	G	G	G	P	VP	G	F	P	F	100	N	36.0	79.9	93
AC® Fieldstar VB*	9	111	110	---	-0.3	F	VG	G	VG	P	F	F	F	F	0	Y	-2.1	+0.7	+3
Harvest	6	101	104	---	-0.4	VG	VG	VG	G	G	G	F	P	VP	-1	N	-0.4	+0.1	-6
AC® Lillian	7	102	99	---	+0.3	F	G	G	VG	VG	F	G	G	VP	0	N	-0.3	-1.1	-1
McKenzie	6	107	103	109	-0.4	F	G	VG	VG	P	VP	VG	P	F	-1	Y	-1.5	+0.1	+1
AC® Shaw VB*	4	124	118	---	-0.7	G	G	VG	G	F	VP	G	P	P	+1	N	-0.4	-1.6	+5
AC® Vesper VB*	3	120	116	---	-0.9	F	F	G	VG	VP	F	VP	F	F	0	Y	0.9	-1.2	-1
AC® Unity VB*	9	117	119	---	-0.7	F	VG	G	VG	P	P	VG	F	F	0	Y	-0.6	+1.0	+1

*Varietal Blend G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor

2013 Alberta Seed Guide - CWRS Wheat Comparison

Variety	Overall Yield (1)		Test Yield Category (2)			Comp. Maturity days	Protein %	Test Weight (lb/bu)	Kernel Weight g/1000	Height (cm)	Resistance to:		Disease Resistance					
	All Sites	Station years of testing	Low < 45 bu/ac	Med 45 - 70 bu/ac	High >70 bu/ac						Lodging	Sprouting	Loose Smut	Bunt	Stripe Rust	Leaf Spot	FHB	
			Yield as % of AC Barrie															
AC Barrie bu/ac	58		36	55	79													
AC Barrie	100	369	100	100	100	M	14.1	62	37	88	G	G	G	F	VP	P	F	
Harvest	102	117	98	103	104	M	-0.1	62	37	84	VG	VG	G	F	G	P	VP	
AC® Lillian	104+	85	111+	100	104	M	0.2	61	37	87	G	G	F	G	VG	F	VP	
McKenzie	103+	104	101	104	105+	M	-0.4	62	34	90	F	VG	P	VG	P	F	F	
AC® Shaw VB*	112+	51	116+	109+	113+	M	-0.9	63	37	91	G	G	P	G	F	P	P	
AC® Unity VB*	110+	69	111+	110+	111+	M	-0.7	64	36	89	G	G	P	VG	P	P	P	
AC® Vesper VB*	106+	45	106	108+	104	M	-1.5	63	37	90	VG	F	F	P	VP	F	F	
AC® Unity VB*	110+	69	111+	110+	111+	M	-0.7	64	36	89	G	G	P	VG	P	P	P	

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