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 Co-op 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

Weakness:
- 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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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 Resitance 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

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

2010 Seed Manitoba- Wheat Comparison

Variety	Long Term Average Yield (% AC Barrie)	Site Years Tested	Protein (+/- AC Barrie)	Relative Maturity (days)	Height	Seed Size	Resistance to:							
							Lodging	Loose Smut	Bunt	Leaf Spot	Stem Rust	Leaf Rust	Stripe Rust	FHB
AC Barrie	100		0	0	M	L	G	G	F	P	G	P	P	F
5602HR	112	77	0.3	1	M	M	F	VG	VG	F	VG	VG	n/a	G
AC® Fieldstar VB*	104	30	-0.3	0	M	M	F	F	F	F	G	VG	G	F
AC® KANE	107	43	0.1	1	M	M	G	P	P	F	G	VG	n/a	F
Harvest	108	55	-0.1	-1	M	M	VG	G	F	P	VG	G	n/a	VP
McKenzie	110	37	---	-1	M	M	F	P	VG	F	VG	VG	P	F
Superb	106	89	-0.1	2	M	L	VG	F	VG	P	VG	VP	P	P
AC® Unity VB*	**108**	**29**	**-0.5**	**0**	**M**	**M**	**F**	**P**	**VG**	**F**	**VG**	**VG**	**n/a**	**P**

*varietal blend M=Medium; L=Large; G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor; n/a=Not Available

2010 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	FHB					
AC Barrie	11	100	100	100	14.8	G	G	G	P	P	G	F	P	F	100	N	36.0	79.9	93
AC® Fieldstar VB*	6	109	109	---	-0.3	F	G	G	VG	---	F	G	---	F	0	Y	-2.1	+0.7	+3
AC® Goodeve VB*	6	109	111	---	-0.1	VG	G	G	G	F	G	P	F	VP	-2	N	+0.8	-0.9	-2
Harvest	6	101	104	---	-0.4	VG	VG	G	G	---	G	F	P	VP	-1	N	-0.4	+0.1	-6
AC®Lillian	6	103	100	---	+0.2	F	G	G	VG	G	F	G	P	VP	0	N	-0.3	-1.1	-1
McKenzie	6	107	103	109	-0.4	F	G	G	VG	P	VP	VG	P	F	-1	Y	-1.5	+0.1	+1
Superb	6	109	109	---	-0.4	G	G	G	P	P	F	G	VP	P	+3	Y	+2.6	-0.5	-7
AC® Unity VB*	**6**	**114**	**120**	**---**	**-0.7**	**F**	**G**	**G**	**VG**	**---**	**P**	**VG**	**P**	**P**	**0**	**Y**	**-0.6**	**+1.0**	**+1**

*varietal blend G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor

2010 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:				Tolerance to:		
	All Sites	Station years of testing	Low < 45 bu/ac	Med 45 - 70 bu/ac	High >70 bu/ac						Lodging	Loose Smut	Bunt	Stripe Rust	Leaf Spot	Sprout	FHB
			Yield as % of AC Barrie														
AC Barrie bu/ac	59		36	57	81												
AC Barrie	100	(356)	100	100	100	106	14.4	63	37	89	G	G	F	P	P	G	F
AC® Fieldstar VB*	102	(34)	101	102	102	-1	-0.2	64	34	87	F	F	G	G	F	XX	F
AC® Goodeve VB*	103	(51)	106+	102	100	0	0.1	62	36	88	G	G	P	F	P	XX	VP
Harvest	101	(94)	99	103+	101	-1	0.2	62	36	83	VG	G	F	XX	P	VG	VP
AC® Lillian	103	(80)	107	102	100	0	-0.1	61	38	86	G	F	G	G	P	G	VP
McKenzie	103+	(104)	107+	103	101	-1	-0.9	62	34	90	F	P	VG	P	F	VG	F
Superb	112+	(155)	112+	113+	111+	2	-0.4	62	42	85	G	F	G	P	P	G	P
AC® Unity VB*	**107+**	**(34)**	**108**	**108+**	**105**	**1**	**-0.3**	**64**	**36**	**88**	**G**	**P**	**VG**	**F**	**F**	**G**	**P**

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