

Technical Bulletin

Genes that fit *your* farm.

SeCan

Canada's Seed Partner

AAC Penhold Canada Prairie Spring Red Wheat



Description:

AAC Penhold is a very short strong strawed CPS wheat that has high yield potential, improved protein content and good disease resistance. AAC Penhold is moderately resistant to FHB and has one of the best disease packages in a CPS wheat so it should be well adapted to all growing regions of western Canada especially those areas concerned with lodging and straw management.

Parentage: 5700PR/HY644-BW//HY469

Strengths:

- Grain yield 106% of 5700PR and 97% of 5701PR (average of all sites in 2010 to 2012 High Yield Wheat Registration trials)
- Improved lodging tolerance compared to 5700PR and 5701PR
- Significantly shorter than 5700PR and 5701PR
- Early maturing, 2 days earlier than 5700PR
- Very large seed size and heavy test weight
- Improved protein over 5700PR and 5701PR
- Moderately Resistant (good) to FHB
- Resistant to common bunt and leaf rust
- Moderately resistant to stripe rust and stem rust Ug99 and variants

Neutral Traits:

- Intermediate resistance to leaf spot and loose smut

Weaknesses:

- Response to yellow rust has not been consistent

Breeder:

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Agriculture and Agri-Food Canada
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Agronomic Tip: AAC Penhold responds favorably to a heavier seeding rate especially in higher moisture areas. For CPS wheat, the optimum seeding rates ranged from 26 to 32 seeds/ft² in the Dark Brown soil zone to 33 to 42 seeds/ft² in the Black soil zone (this can be in the 180lb/ac range.)

The exceptionally strong straw of AAC Penhold can handle higher fertility – follow fertility recommendations for the target yield of your fields.

PBR 91 Protected

2010-2012 High Yield Wheat Cooperative Trials - Registration Data

Variety	Yield (% of Mean of Checks)	Maturity (days)	Lodging 1 = erect 9 = flat	Height (cm)	Test Weight (kg/kl)	Kernel Weight (mg/kernel)	Grain Protein (%)	Falling Number	FHB Resistance Rating
5700 PR	95	107.3	1.5	79.8	77.2	36.8	11.9	357	MS
5701 PR	105	105.7	1.8	81.4	75.6	37.5	12.3	413	MS
AAC Penhold	101	105.3	1.3	72.3	78.4	42.9	12.9	445	MR

2021 Seed Manitoba – CPSR Wheat Comparison

Variety	Site Years Tested	Yield bu/ac	Protein %	Maturity +/- 99 days	Height +/- 81cm	Spike Awned	Resistance to:								
							Lodging	Sprouting	Loose Smut	Bunt	Leaf Spot	Stem Rust	Leaf Rust	Stripe Rust	FHB
AC® Carberry	137	68	14.5	2	0	Y	VG	F	MR	R	MS	MR	R	MR	MR
AAC Foray VB	31	78	13.1	1	+5	Y	VG	P	MS	I	MS	MR	R	I	I
AAC Goodwin	33	76	14.1	2	0	Y	VG	G	MS	I	I	I	R	R	I
AAC Ryley	30	72	13.1	1	+3	Y	G	G	I	R	MS	R	R	S	MS
AAC Penhold	44	76	13.9	1	-10	Y	VG	VG	I	R	I	MR	R	MR	MR

Lodging Ratings: F=Fair; G=Good; VG=Very Good

Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

2021 Varieties of Grain Crops for Saskatchewan – Wheat Comparison

Variety	Years Tested	Yield as % of Carberry			Protein	Resistance to:									Relative Maturity (days)	Head Awedness	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® Carberry	6	100	100	100	14.5	VG	F	MR	R	MR	MR	R	MS	MR	102	Y	35.8	80.3	83
AAC Foray VB	5	116	120	122	-1.6	F	P	MR	R	I	MS	I	MS	I	+1	Y	+7.8	-1.4	+5
AAC Goodwin	4	116	114	---	-0.6	G	G	I	R	R	MS	I	I	I	-1	Y	+1.1	+0.2	+2
AAC Penhold	5	108	111	108	-0.9	VG	VG	MR	R	MR	I	R	I	MR	-2	Y	+5.0	-0.2	-9

G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor

2021 Alberta Seed Guide - CPSR Wheat Comparison

Variety	Overall Station years of testing	Overall Yield	Yield as % of AC® Carberry			Maturity Rating (Days +/- Carberry)	Protein %	Test Weight (lb/bu)	Kernel Weight g/1000	Height (cm)	Awns Y/N	Resistance to:		Disease Resistance:		
			Low < 55 bu/ac	Med 55-80 bu/ac	High >80 bu/ac							Lodging	Sprouting	Bunt	Stripe Rust	FHB
AC® Carberry bu/ac		73	40	62	90											
AC® Carberry	100		100	100	100	104	14.0	63	40	85	Y	VG	F	R	MR	MR
AAC Foray VB	41	121	117	123	123	0	-1.6	63	51	90	Y	G	G	I	MR	I
AAC Goodwin	48	115	112	116	117	-1	-0.6	63	41	87	Y	VG	G	MS	R	I
AAC Ryley	37	111	108	112	110	-1	-1.2	60	48	87	Y	G	G	R	S	MS
AAC Penhold	70	113	107	113	115	-2	-0.7	63	44	79	Y	VG	VG	R	I	MR

VG = Very Good; G = Good; F = Fair; P = Poor; VP = Very Poor

Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible