

Technical Bulletin

Genes that fit your farm.

SeCan

Canada's Seed Partner

AAC Penhold Canada Prairie Spring Red Wheat



Progress Through Research
Le progrès grâce à la recherche

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:

Dr. Richard Cuthbert

Swift Current Research and Development Centre
Agriculture and Agri-Food Canada
Swift Current, SK

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
PVP Granted**

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

2026 Seed Manitoba - Wheat Comparison

Variety	Site Years Tested	Yield bu/ac	Protein %	Maturity +/- 99 days	Height +/- 81cm	Spike Awned	Resistance to:									
							Lodging	Sprouting	Loose Smut	Common Bunt	Leaf Spot	Stem Rust	Leaf Rust	Stripe Rust	FHB	
AAC Brandon	136	75	14.5	+2	0	Y	VG	P	MR	S	I	R	R	MR	MR	
AAC Rimbey VB	29	81	12.5	+1	0	Y	G	VG	--	I	--	R	R	R	I	
AAC Westlock	32	76	13.2	+1	-1	Y	VG	F	--	R	--	R	R	R	MR	
CDC Warburg	21	83	13.1	+3	+2	Y	VG	--	--	R	--	R	MR	R	I	
AAC Penhold	44	77	14.0	+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

2026 Varieties of Grain Crops for Saskatchewan – Wheat Comparison

Variety	Years Tested	Yield as % AAC Brandon		Protein	Resistance to:										Awns	Stem Solidness	Relative Maturity (days)	Seed Weight (mg)	Test Weight (kg/hl)	Height (cm)
		Area 1 & 2	Area 3 & 4		Lodging	Sprouting	Stem Rust	Leaf Rust	Stripe Rust	Loose Smut	Bunt	Leaf Spot	FHB							
AAC Brandon	7	100	100	14.3	F	P	R	R	MR	MR	S	I	MR	Y	H	101	36.2	80.9	81	
AAC Foray VB	5	101	107	-1.4	P	P	MR	R	I	MS	I	MS	I	Y	H	+1	+7.3	-1.5	+6	
AAC Rimbey VB	5	106	107	-1.9	G	VG	R	R	R	--	I	--	I	Y	H	-1	+5.1	-1.8	-1	
AAC Westlock	4	107	103	-1.3	G	F	R	R	R	--	R	--	MR	Y	H	0	+4.6	-1.3	0	
CDC Warburg	1	107	112	-1.5	F	P	R	MR	R	--	R	--	I	Y	H	+1	+3.6	-1.3	+2	
AAC Penhold	5	98	98	-0.6	VG	VG	MR	R	MR	I	R	I	MR	Y	H	-2	+4.5	-0.4	-9	

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

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

Stem Solidness: H = Hollow, SS = semi-solid, S = solid

2026 Alberta Seed Guide - CPSR Wheat Comparison

Variety	Most Recent Year of Testing	Station years of testing	Overall yield	Yield Category (% AAC Brandon)		Maturity Rating (Days +/- AAC Brandon)	Protein %	Test Weight (lb/bu)	Kernel Weight g/1000	Height (cm)	Awns (Y/N)	Resistance to:		Disease Tolerance:		
				Low <77 bu/ac	High >77 bu/ac							Lodging	Sprouting	Bunt	Stripe Rust	FHB
AAC Brandon (bu/ac)			79	57	95											
AAC Brandon - check	2025	296	100	100	100	104	14.0	63	39	84	Y	F	P	S	MR	MR
AAC Goodwin	2025	52	104	103	104	0	-0.6	65	40	86	Y	G	VG	MS	R	I
AAC Rimbey VB	2023	36	106	99	110	0	-2.1	63	44	85	Y	G	VG	I	R	I
AAC Westlock	2023	36	106	101	108	+1	-1.3	64	44	86	Y	G	G	R	R	MR
CDC Warburg	2025	48	108	102	113	+1	-1.4	64	43	87	Y	VG	P	R	R	I
AAC Penhold	2025	138	100	96	102	0	-0.7	64	43	77	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