

# 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:

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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/ft<sup>2</sup> in the Dark Brown soil zone to 33 to 42 seeds/ft<sup>2</sup> 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
<b>AAC Penhold</b>	<b>101</b>	<b>105.3</b>	<b>1.3</b>	<b>72.3</b>	<b>78.4</b>	<b>42.9</b>	<b>12.9</b>	<b>445</b>	<b>MR</b>

For more information, call 1-800-665-7333 or visit [www.secan.com](http://www.secan.com)

## 2024 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	109	74	14.4	2	0	Y	VG	P	MR	S	I	R	R	MR	MR
AAC Goodwin	33	79	14.2	2	0	Y	VG	G	MS	I	I	I	R	R	I
AAC Rimbey VB	29	81	12.5	1	0	Y	G	VG	---	I	---	R	R	R	I
AAC Westlock	5	81	13.5	1	-1	Y	VG	---	---	R	---	R	R	R	MR
<b>AAC Penhold</b>	<b>44</b>	<b>78</b>	<b>14.0</b>	<b>1</b>	<b>-10</b>	<b>Y</b>	<b>VG</b>	<b>VG</b>	<b>I</b>	<b>R</b>	<b>I</b>	<b>MR</b>	<b>R</b>	<b>MR</b>	<b>MR</b>

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

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

## 2024 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	6	100	100	14.3	G	P	R	R	MR	MR	S	I	MR	Y	H	101	35.9	80.7	81
AAC Foray VB	5	104	107	-1.5	F	P	MR	R	I	MS	I	MS	I	Y	H	0	+7.1	-1.6	+6
AAC Rimbey VB	3	108	108	-1.9	F	VG	R	R	R	---	I	---	I	Y	H	0	+5.4	-1.9	-1
AAC Westlock	2	109	105	-1.3	G	G	R	R	R	---	R	---	MR	Y	H	+1	+4.8	-1.1	0
<b>AAC Penhold</b>	<b>5</b>	<b>100</b>	<b>99</b>	<b>-0.7</b>	<b>VG</b>	<b>VG</b>	<b>MR</b>	<b>R</b>	<b>MR</b>	<b>I</b>	<b>R</b>	<b>I</b>	<b>MR</b>	<b>Y</b>	<b>H</b>	<b>-2</b>	<b>+4.3</b>	<b>-0.4</b>	<b>-9</b>

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

## 2024 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
<b>AAC Brandon (bu/ac)</b>			<b>80</b>	<b>58</b>	<b>95</b>											
AAC Brandon - check	2023	204	100	100	100	104	14.0	63	39	84	Y	G	P	S	MR	MR
AAC Goodwin	2023	23	105	107	105	-1	-0.7	65	39	85	Y	VG	VG	MS	R	I
AAC Rimbey VB	2023	34	106	97	109	0	-2.1	63	44	85	Y	G	VG	I	R	I
AAC Westlock	2023	34	106	100	108	+1	-1.3	64	44	86	Y	G	G	R	R	MR
<b>AAC Penhold</b>	<b>2023</b>	<b>91</b>	<b>102</b>	<b>98</b>	<b>103</b>	<b>0</b>	<b>-0.7</b>	<b>64</b>	<b>43</b>	<b>77</b>	<b>Y</b>	<b>VG</b>	<b>VG</b>	<b>R</b>	<b>I</b>	<b>MR</b>

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

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