# What's New in Wheat Varieties

Spring 2016







# AAC Brandon CWRS 2015

- Parentage: Superb/CDC Osler//ND744
   (AC Carberry Parentage: Alsen /Superb)
- Replacement for AC® Carberry
- Awned, Semi-dwarf
- Yield: 5% > AC® Carberry
- MR (Good) rating for FHB
- 1 cm shorter than AC® Carberry
- Maturity: ½ day < AC® Carberry</li>
- Resistant to leaf, stem stripe rust





### AAC Elie CWRS (2015)



- Short Stature
- Semi Dwarf
- Awned
- Strong I for FHB
- High TWT
- Sprouting = Fair
- High Yield
- Mid Protein
- Improved Leaf Spotting
- Sister to AAC Brandon





# AAC Redwater CWRS 2016

- Parentage: AC Intrepid//Harvest/Mckenzie
- A better "Harvest"
- Early 2 days earlier than AC Barrie
- Short, strong straw
- Yield: 102 to 105% > AC Barrie
- FHB: Intermediate (Fair)
- Very Good sprouting tolerance





# AAC Jatharia VB midge tolerant CWRS (2017)

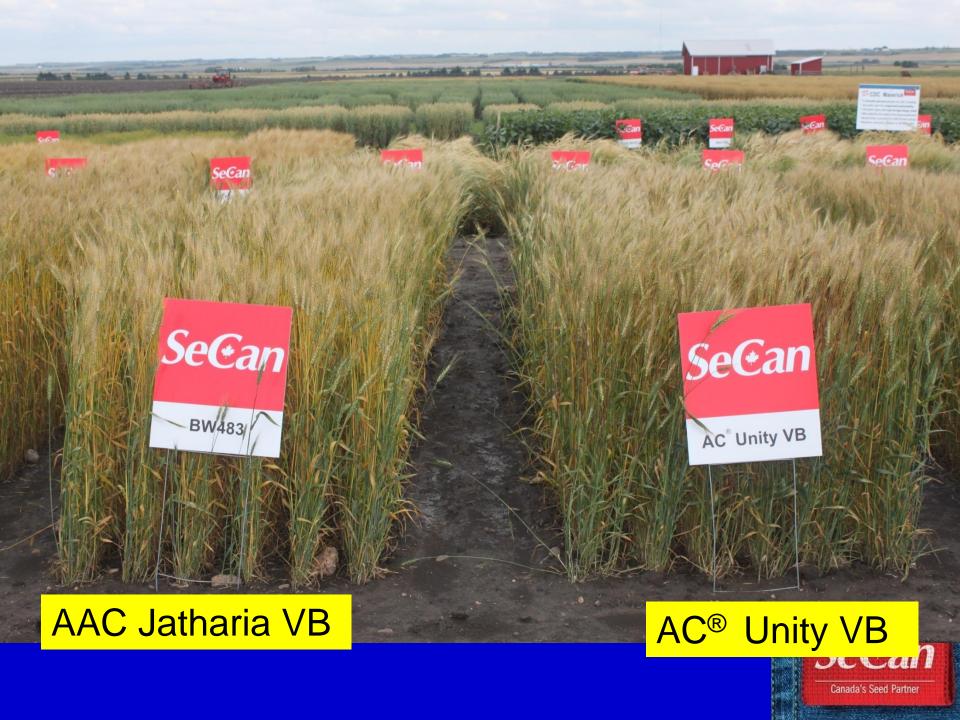
- Parentage: includes AC Kane, McKenzie, Grandin, Caldwell
- AC Unity VB replacement stronger straw
- Awned
- Yield: 4% > AC® Unity VB
- One day later than AC® Unity VB
- FHB = Intermediate (Fair)
- High falling #



#### 2011 – 2013 Central Bread Wheat Coop

	Yield % Unity	Mat days	Height cm	Ldg 9=flat	Kernel Wt (mg)	2011-13 Grain Protein %	2011-13 Falling #
AC Unity VB	100	95	97	3.6	33.0	14.5	450
5603HR	94	97	97	2.4	31.7	14.3	440
AAC Jatharia VB	104	96	98	2.3	34.0	14.4	430





#### AAC Prevail VB CWRS (Launching 2017)





- Midge Tolerant Awnless
- 112 to 108% of Carberry
- High grade retention similar to Unity
- Good standability
- Good Sprout resistance
- Excellent protein retention
- Resistance to all rusts
- I for FHB
- Ht 20 cm > Carberry



#### **AAC Prevail VB CWRS**







## CDC Bradwell CWRS (2017)

- Parentage includes: 5602HR & AC Elsa
- strong straw
- Egg laying deterrence against Midge??
- FHB = Intermediate (Fair)
- 3 cm taller than AC® Carberry
- 8 cm shorter than AC® Unity
- Awned, hollow stem
- 102% yield > AC® Carberry
- One day earlier than AC® Carberry



#### 2011 – 2013 Central Bread Wheat Coop

	Yield % Unity	Mat days	Height cm	Ldg 9=flat	Kernel Wt (mg)	2011-13 Grain Protein %	2011-13 Falling #
AC Unity VB	100	95	97	3.7	33.0	14.5	450
5603HR	94	97	97	2.6	31.7	14.3	440
Carberry 2013	93	100	86	1.5	34.8	13.9	420
CDC Bradwell	95	98	<u>89</u>	<u>1.6</u>	32.4	<u>14.7</u>	<u>450</u>

CDC Bradwell = 103% of Cardale 2011+12 Coop CDC Bradwell = 102% of Carberry 2013 Coop Superb = 37.2 mg seed size







# CWRS wheat - Thorsby

University of Alberta (Edmonton)

- 2016
- Early maturity with high yield
- R to stripe rust
- Awnless
- Yield 101% of Carberry
- FHB = Intermed
- Height 10 cm > Carberry





### CWRS - AAC W1876

#### AAFC (Swift Current)

- 2016
- Great milling quality
- Higher protein
- Short, strong straw
- Height 1 cm > Carberry
- Yield 98% of Carberry
- FHB = Intermed
- I.P. contracts available under Warburton program





### CWRS wheat - AAC Cameron VB

# AAFC (Cereal Research Centre)

- 2017
- Midge-tolerant (Sm1 gene)
- Significantly better lodging
- Taller than AC Unity VB
- Yield 108 to 117% of Carberry
- FHB = Intermed









## CWRS wheat - AAC Connery

#### AAFC (Swift Current)

- 2017
- Awnless semi-dwarf
- Height 2 cm > Carberry
- Early maturity
- 4 days < Carberry
- Large, heavy seed
- FHB = MR
- Yield 93 to 101% of Carberry







### Other New CWRS Lines

- CDC Titanium VB (Crop Prod Services)
  - -2016
  - Midge Tolerant (awned) Yld 106 to 111% of Carberry
  - Shorter than AC Unity
  - MR for FHB
  - Fair for sprouting
  - (Bearded CDC Utmost with better FHB)





## AAC Tradition (BW487)

- Classification: CNHR (not CWRS)
- Selected under "organic trials"
- FHB = Intermediate (Fair)
- 101% Yld > AC® Unity
- 8 cm shorter than AC® Unity
- Stronger straw than AC® Unity
- 4 days later than AC® Unity
- Top yield in 2013 Coop trials





### Elgin ND

#### Interim Class (moving to CNHR)

- Available 2016 FPGenetics
- Breeder: NDSU
- Yield 115 to 128% of Carberry
- 2 days earlier than Carberry
- Height 6 cm taller than Carberry
- FHB = Intermed
- Protein 0.9% < Carberry</li>
- Lodging rated as "Good"
- CNHR: Canada Northern Hard Red





# AAC Penhold CPS Red Wheat 2016

- AAFC Swift Current
- Shortest, strongest strawed CPS Red Wheat
- 108 to 114% of AC Carberry
- FHB = MR (Good)
- 2 days earlier than AC Carberry
- 0.5% to 1% higher protein than other CPS
- Very good resistance to sprouting, lodging



## Record yields with AAC Penhold

#### Building a 137 bushel CPS crop

It's the whole agronomic program that will allow farmers to push yields to new limits





Published: November 25, 2015 Cereals, Crops 1 Comment

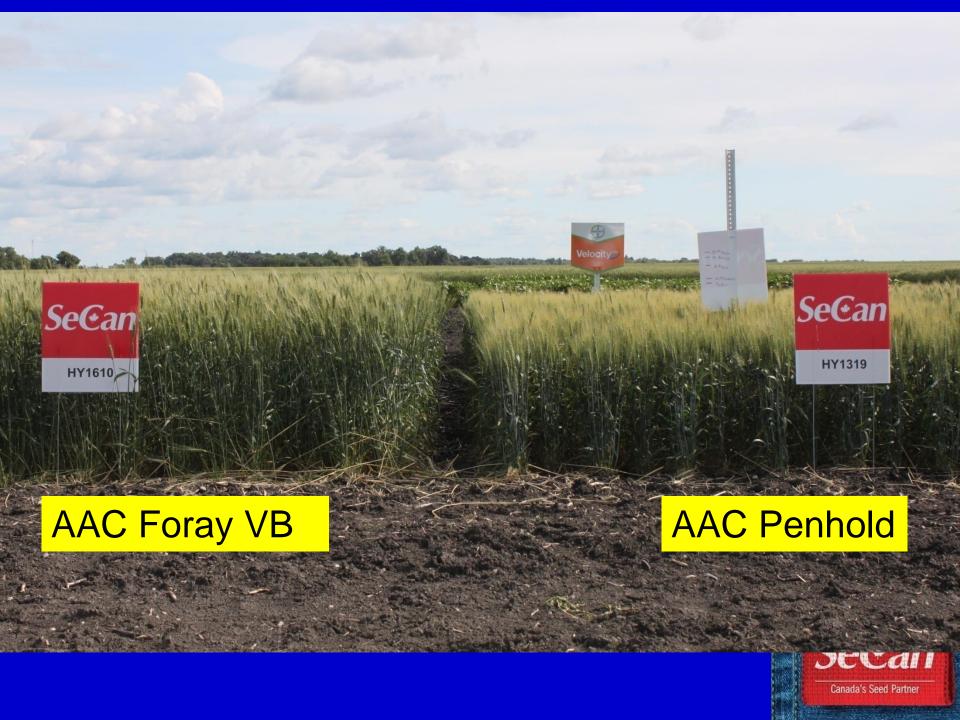


Photo: Fred Wood

Achieving a 137 bushel per acre yield on CPS wheat in a relatively dry year is certainly noteworthy, but Fred Wood, an Alberta consulting agronomist says the real story is about the benefits of having a complete agronomy program.

Varieties are important to some extent, says Wood who owns Meridian Ag Consulting, but the real key is a whole package of inputs and management, which makes it







## AAC Foray VB CPS Red Wheat 2016

- AAFC Winnipeg Doug Brown
- Top Yield, Midge tolerant
- Refuge: AAC Penhold
- Yield 117 to 123% of Carberry
- FHB = Intermed
- 1 day < Carberry</li>
- Height 8 cm > Carberry



#### CPSR wheat - AAC Crusader

#### AAFC (Lethbridge)

- 2017
- Yield 106% to 117% of Carberry
- 3 days earlier than Carberry
- 2 cm taller than Carberry
- Improved lodging
- R-rating to stem rust and leaf rust
- I-rating to FHB
- Developed under P4
   agreement with AAFC and
   Alberta Wheat Commission









#### AAC Tenacious VB (2017)

- R rated for FHB
- R rated for Leaf Rust
- R rated for Stripe Rust
- R rated for Loose Smut
- MR rated for Stem Rust
- MR rated for Bunt







#### AAC Tenacious VB (Launch 2017)

- Wheat Midge tolerance (sm1)
- 2 days earlier maturing than Carberry
- 25cm > Carberry
- Yield 99 to 109% of Carberry





#### AAC Current CWAD (2015)



- 102 to 96% of Strongfield
- Good standability
- Protein = Strongfield
- Resists root rot infection
- R to Stem and Leaf Rust
- Improved stripe rust resistance
- Very high test weight
- Good color retention
- FHB = MS



#### **AAC Marchwell VB Durum**

- 2016
- Midge tolerant (refuge = AAC Raymore)
- Yield 99 to 103% > AC® Strongfield
- Parentage: Strongfield, Kyle, Napoleon, Navigator, Caldwell
- Maturity, Ht, = AC<sup>®</sup> Strongfield
- Slightly weaker straw than AC® Strongfield
- FHB = MS (Poor)



# AAC Spitfire (DT844)

- 2017
- Hollow stem AC Strongfield replacement
- Yield; 110 to 114% yld > AC® Strongfield
- Stronger Straw than AC Strongfield
- Maturity, Height = AC<sup>®</sup> Strongfield
- 0.6% < protein than AC® Strongfield</li>
- FHB = Susceptible (Very Poor)





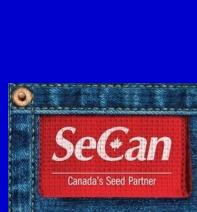






# AC® Strongfield





# AAC Raymore CWAD

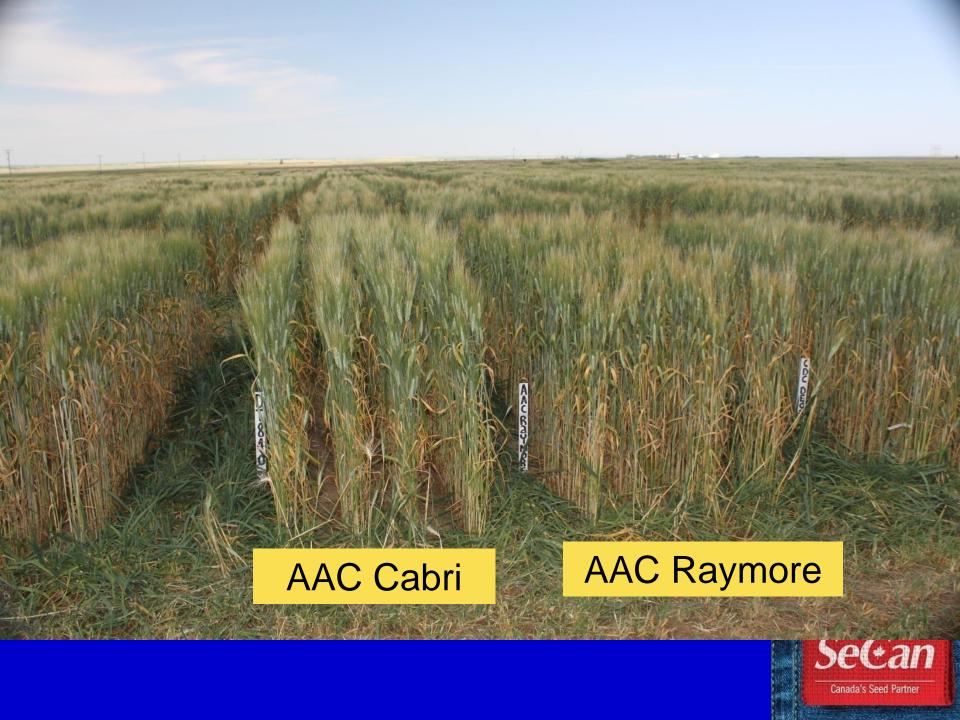




### AAC Cabri (DT840)

- 2018
- Solid Stem (Sawfly Tolerant)
- Yield 107 to 103% > AC<sup>®</sup> Strongfield
- 1 day later than AC® Strongfield
- Lodging = AC<sup>®</sup> Strongfield
- 3 cm taller than AC® Strongfield
- 0.4% < Protein than AC® Strongfield</li>
- FHB = Moderately Susceptible (Poor)





### CWAD - AAC Congress

#### AAFC (Swift Current)

- 2018
- Yld 109 105% > Stgfld
- 1 day later than Strongfield
- 3 cm taller than Strongfield
- Lodging similar to Strongfield
- Test weight similar to checks
- Reduced DON accumulation
- FHB = Mod Susceptible



Canada





#### Other New Durum Lines

- CDC Fortitude (Crop Prod Services)
  - -2016
  - Yield 105% of Strongfield
  - Good lodging resistance
  - FHB = MS
- CDC Carbide VB (Crop Prod Services)
  - 2017
  - Midge Tolerant
  - Yield 108 to 110% of Strongfield
  - Maturity, Height = Strongfield



#### CDC Precision CWAD (Launch 2018)





### NEW PLATEAU IN DURUM YIELD

- 112% of Strongfield,
- 125% Navigator,
- 105% Spitfire
- Maturity = Strongfield



# CDC Precision CWAD





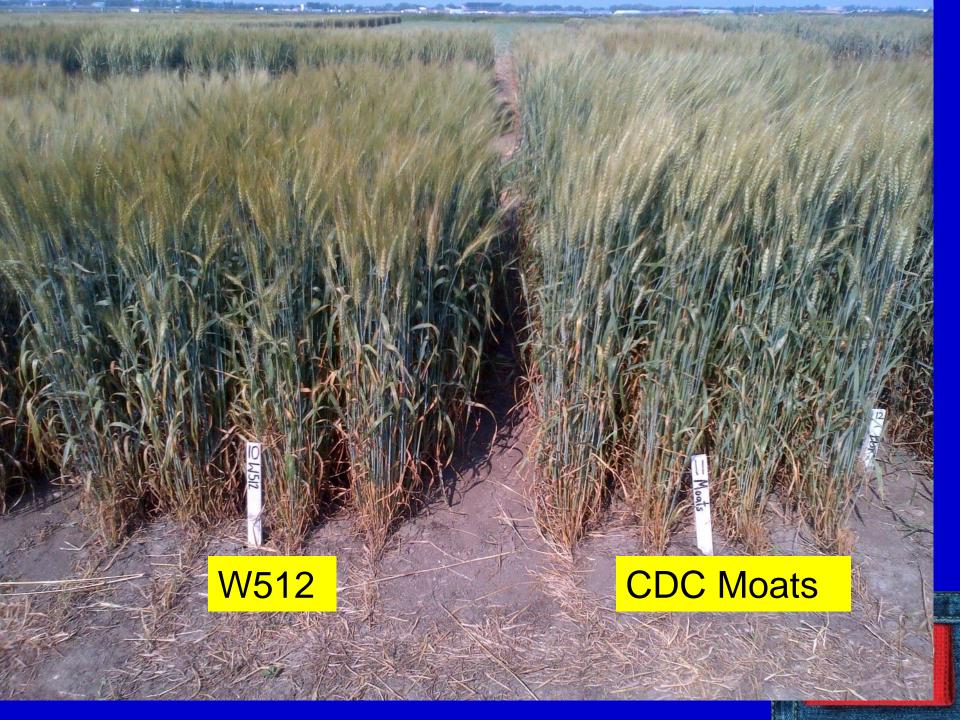
- Standability better than Strongfield (2.0 vs 2.9), Brigade (2.1), Navigator (1.9)
- Height 2.5 inches shorter than Brigade
- FHB = MS



#### Other New Durum Lines

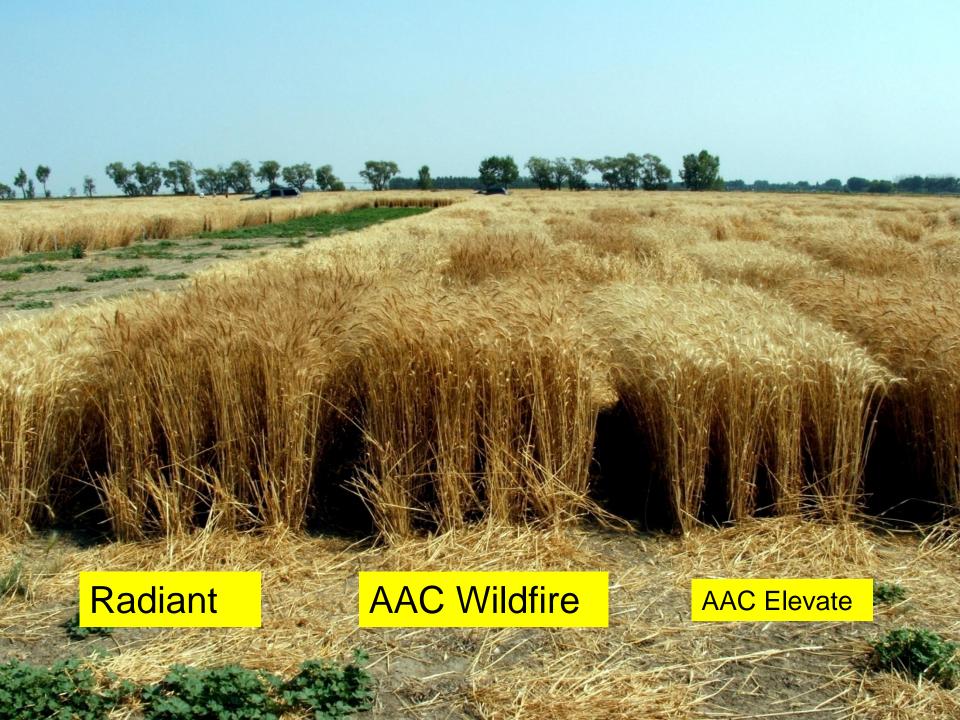
- CDC Alloy (FP Genetics)
  - 2018
  - Yield 111 to 113% of Strongfield
  - Good lodging resistance
  - FHB = MS, lower protein than Strongfield
- CDC Dynamic (Crop Prod Services)
  - 2018
  - Yield 111 to 107% of Strongfield
  - Maturity, Height = Strongfield
  - FHB = MS, Higher protein than Strongfield
- CDC Precision (Alliance Seed Corp)
  - 2018
  - Yield 113 to 118% of Strongfield
  - Maturity = Strongfield, 4 cm taller than Strongfield
  - FHB = MS, lower protein than Strongfield











# AAC Wildfire (W512) Hard Red Winter

- Available fall 2018
- Parentage: L99-1236 X AC Bellatrix
- SK and AB adaptation (AC Radiant adaptation)
- Grain yield Coop: 109%>Radiant, 109%>Moats
- SK YId = 116% of CDC Buteo
- Short, strong straw (5 cm < Radiant)</li>
- FHB = MR (Good)
- Russian Wheat Aphid resistant
- Susceptible to stem and leaf rust, inferior to Moats



# AAC Wildfire (W512) Hard Red Winter

- Stripe rust resistant
- Bronze Chaff
- Good winter survival
- Later maturity
- Medium height
- Excellent lodging resistance



#### 2012-2014 Western Winter Wheat Coop

	Yield % Moats	Winter Survival (%)	Mat days	Height cm	Ldg 9=flat	Kernel Wt (mg)	Grain Protein %
Moats	100	84	218	98	3.0	31.9	12.4
Radiant	100	84	220	96	2.1	33.4	11.6
Flourish	102	85	215	86	2.3	34.4	12.2
AAC Elevate	104	83	218	90	2.4	36.6	11.8
W512	<u>109</u>	<u>85</u>	221	<u>92</u>	<u>2.3</u>	34.9	11.9



#### AAC Innova CWGP





- High yields, 131% of CWRS check
- Good Straw Strength
- Improved Threshing efficiency
- -3 days maturity vs
   Pasteur



# AAC Indus Soft White Wheat (SWS 427)

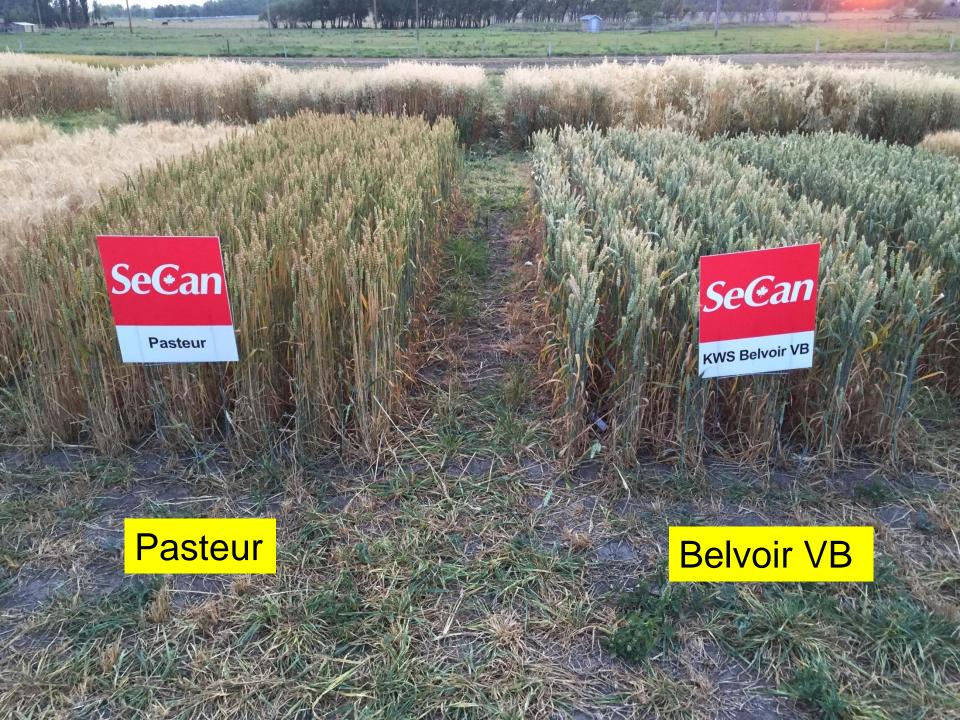
- Available spring 2018
- Parentage: Sadash/SWS340
- 109% yield > AC Andrew
- Height, Maturity > AC Andrew
- Lodging = AC Andrew
- Susceptible: stem rust, bunt, loose smut
- FHB = Mod Suscept (Poor)
- Stripe rust = Resistant



#### 2011- 2013 Soft White Wheat Coop

	Yield % AC Andrew	Yield % AC Andrew (dryland)	Mat days	Height cm	Ldg 9=flat	Kernel Wt (mg)	2011-12 Grain Protein %
AC Reed	89	85	104	85	2.6	35.4	11.5
AC Andrew	100	100	106	89	2.4	37.1	11.7
Sadash	105	102	106	92	2.4	37.9	11.6
AAC Indus	<u>109</u>	106	<u>108</u>	<u>95</u>	2.4	39.5	11.8





#### 2013 – 2014 General Purpose Wheat Coop

	Yield % Andre w	Mat days	Height cm	Ldg 9=flat	Test Wt (kg/hl)	Kernel Wt (mg)	2014 Grain Protein %
AC Andrew	100	98	90	1.4	71.1	34.0	11.2
Pasteur	96	102	93	1.3	74.5	37.1	11.8
KWS Belvoir	98	104	86	1.2	64.9	35.8	11.3

