

Technical Bulletin

Genes that fit *your* farm.

SeCan

Canada's Seed Partner

AC[®] Sadash Soft White Spring Wheat



Description:

AC[®] Sadash is a high yielding and high quality, awned, soft white spring wheat. It was selected for grain yield similar to AC Andrew but in addition, has lower protein than AC Andrew. AC[®] Sadash is a semi-dwarf with short, strong straw. It was especially selected for production under irrigation in southern Alberta and Saskatchewan to produce high quality, low protein wheat for the SWS milling market. The lower protein of AC[®] Sadash, along with its high grain yields, should make it very suitable for ethanol production.

Strengths:

- Very high grain yield, similar to AC Andrew
- 0.5% lower grain protein than AC Andrew in Coop Registration trials
- Maturity similar to AC Andrew
- Excellent lodging resistance, stronger straw than AC Andrew
- Resistant to prevalent races of stripe rust and powdery mildew
- Moderately resistant to stem rust and loose smut

Weaknesses:

- 2% lower grain yield than AC Andrew in 2003 soft white spring wheat Coop Registration trial
- 3 cm taller than AC Andrew
- Moderately susceptible to leaf rust
- Susceptible to common bunt and black point – seed should be treated for bunt and smut control
- Moderately susceptible to pre-harvest sprouting

Observations on Soft White Spring Wheat:

- Varieties like AC[®] Sadash are thought to yield 20% to 35% more than AC Barrie over the long term
- Soft White Spring wheat is the lowest protein wheat class (usually 2 to 3% lower grain protein than CWRS)
- 2006 was the first year that a significant acreage of soft white spring wheat was grown on dryland. Because all the soft white varieties are semi-dwarf in stature and have been developed for irrigated conditions, we are not certain how they will perform under the drought-stressed conditions often experienced on dryland production.

Major risks for dryland production of soft white spring wheat in western Canada:

- Delayed maturity under cool growing conditions
- Late maturity combined with early fall frost
- Moderately susceptible to reduced yield and increased grain protein under drought stress conditions
- Pre-harvest sprouting under wet harvest conditions

Breeder:

AAFC Lethbridge Research Centre
Lethbridge, AB

2003-2005 Soft White Spring Wheat Cooperative Registration Trials

| Entry | Yield (% Reed) | Maturity (days) | 2003 Lodging 1=erect 9=flat | 2003 Height (cm) | Grain Protein (%) | 1000 Kernel Weight (mg) |
|------------------------|----------------|-----------------|-----------------------------------|------------------|-------------------|-------------------------|
| AC Reed | 100 | 108 | 3.6 | 75 | 10.7 | 32 |
| AC Phil | 100 | 108 | 4.2 | 75 | +0.1 | 32 |
| AC Nanda | 100 | --- | 3.0 | 83 | --- | 33 |
| AC Andrew | 120 | 110 | 3.0 | 79 | +0.5 | 34 |
| AC [®] Sadash | 118 | 110 | 2.9 | 82 | +0.1 | 36 |

*Protein of AC Andrew relative to AC Reed in the 1997-99 Coop registration trial

'AC' is an official mark used under license from Agriculture & Agri-Food Canada

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

2013 Seed Manitoba - Wheat Comparison

| Variety | Site Years Tested | Yield bu/ac | Protein (+/- AC Barrie) | Relative Maturity (days) | Height | Spike Awned | Resistance to: | | | | | | | |
|-------------------|-------------------|-------------|-------------------------|--------------------------|-----------|-------------|----------------|-----------|------------|----------|------------|-----------|-----------|----------|
| | | | | | | | Lodging | Sprouting | Loose Smut | Bunt | Leaf Spot | Stem Rust | Leaf Rust | FHB |
| AC Barrie | 164 | 55 | 14.5 | 99 | 37" | N | G | G | MR | I | MS | MR | MS | I |
| Harvest | 61 | 58 | 14.3 | -1 | -2 | N | VG | VG | MR | S | MS | R | MR | S |
| AC® KANE | 78 | 58 | 14.6 | +1 | -2 | Y | G | VG | MS | I | I | R | R | I |
| AC® Unity VB* | 53 | 62 | 14.2 | 0 | 0 | Y | F | G | MS | R | I | MR | R | I |
| Pasteur | 24 | 67 | 12.9 | 7 | -3 | N | VG | F | MS | S | I | MR | R | I |
| AC Andrew | 30 | 68 | 11.0 | 4 | -4 | Y | VG | P | S | S | --- | MR | MS | I |
| AC® Sadash | 34 | 68 | 10.8 | 4 | -2 | Y | VG | P | I | S | --- | MR | I | S |

F=Fair; G=Good; VG=Very Good; R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

2013 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 | 14.9 | G | G | G | P | VP | G | F | P | F | 100 | N | 36.0 | 79.9 | 93 |
| Harvest | 6 | 101 | 104 | --- | -0.4 | VG | VG | VG | G | G | G | F | P | VP | -1 | N | -0.4 | +0.1 | -6 |
| AC® Unity VB* | 9 | 117 | 119 | --- | -0.7 | F | VG | G | VG | P | P | VG | F | F | 0 | Y | -0.6 | +1.0 | +1 |
| Pasteur | 2 | 146 | 135 | --- | -2.7 | VG | G | G | VG | G | P | VP | F | F | +8 | N | +2.9 | +0.9 | -7 |
| AC Crystal | 11 | 118 | 115 | 110 | -1.3 | VG | P | VG | P | VP | P | VG | F | VP | +3 | Y | +4.9 | -0.1 | -11 |
| AC Andrew | 5 | 138 | 135 | --- | -3.6 | G | P | G | P | F | VP | VP | F | F | +5 | Y | +0.7 | -1.8 | -9 |
| AC® Sadash | 4 | 148 | 131 | --- | -4.3 | VG | P | G | F | G | F | VP | F | VP | +5 | Y | +0.7 | +0.6 | -6 |

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

2013 Alberta Seed Guide – SWS Wheat Comparison

| Variety | Overall Yield (1) | | Test Yield Category (2) | | | Comp. Maturity days | Test Weight (lb/bu) | Kernel Weight g/1000 | Height (cm) | Lodging | Resistance to: | | Disease Tolerance | | | | | | |
|-------------------|-------------------|--------------------------|-------------------------|-------------------|----------------|---------------------|---------------------|----------------------|-------------|-----------|----------------|----------|-------------------|-----------|-------------|-----------|----------|--|--|
| | All Sites | Station years of testing | Low <55 bu/ac | Med 55 - 85 bu/ac | High >85 bu/ac | | | | | | Shattering | Sprout | Loose Smut | Bunt | Stripe Rust | Leaf Spot | FHB | | |
| | | | Yield as % of AC Andrew | | | | | | | | | | | | | | | | |
| AC Andrew bu/ac | 82 | | 45 | 75 | 115 | | | | | | | | | | | | | | |
| AC Andrew | 100 | (126) | 100 | 100 | 100 | L | 62 | 38 | 79 | VG | VG | P | VP | P | F | G | VP | | |
| AC Meena | 97- | (51) | 101 | -97 | 95 | L | 61 | 37 | 80 | G | G | F | VP | VP | G | F | P | | |
| AC® Sadash | 110+ | (51) | 113+ | 109+ | 109+ | L | 63 | 39 | 82 | VG | VG | P | VP | VP | VG | F | P | | |

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

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