# Technical Bulletin

Genes that fit your farm.



# AC® Carberry Canada Western Red Spring Wheat



### **Description:**

AC® Carberry is an awned, semi-dwarf CWRS variety that when compared to Superb has similar grain yield, higher grain protein potential, shorter, stronger straw and much fusarium head blight better resistance. AC® Carberry is equal in maturity to Superb and has good sprouting resistance indicated by a high falling number. AC® Carberry also provides resistance to leaf rust, stem rust, common bunt and loose smut. This variety is well-adapted across western Canada, but will be especially attractive to wheat producers in the high vielding areas of the Prairies who desire a short, strong strawed variety with good FHB resistance.

Parentage: Alsen/Superb

#### Strengths:

- Grain yield 111% of AC Barrie, 100% of Superb, over all sites in 2006 to 2008 Coop Registration trials
- Grain protein potential equal to AC Barrie, 0.5% higher than Superb
- Height 12 cm shorter than AC Barrie, 5 cm shorter than Superb

- Lodging resistance better than AC Barrie and Superb
- Good preharvest sprouting resistance (high falling number)
- Good leaf and stem rust resistance
- Good resistance to common bunt
- "Good" rating for fusarium head blight resistance

#### **Neutral Traits:**

- Higher test weight than AC Barrie and Superb
- Fair resistance to loose smut
- Seed is held tightly to stem but glumes fall easily as crop matures

#### Weaknesses:

 Maturity two days later than AC Barrie, equal to Superb

### **Breeder:**

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2006-2008 Western Bread Wheat Cooperative Trials - Registration Data

|                         |                  |          | Lodging   |        | Test    | Kernel      | Grain   |         | FHB        |
|-------------------------|------------------|----------|-----------|--------|---------|-------------|---------|---------|------------|
|                         | Yield            | Maturity | 1 = erect | Height | Weight  | Weight      | Protein | Falling | Resistance |
| Variety                 | (% of AC Barrie) | (days)   | 9 = flat  | (cm)   | (kg/kl) | (mg/kernel) | (%)     | Number  | Rating     |
| AC Barrie               | 100              | 99       | 2.1       | 97     | 79.6    | 33.8        | 15.2    | 398     | F          |
| Katepwa                 | 97               | 98       | 3.1       | 101    | 78.4    | 32.0        | 14.9    | 388     | F          |
| Superb                  | 110              | 101      | 2.1       | 90     | 79.5    | 38.2        | 14.7    | 385     | Р          |
| Laura                   | 101              | 100      | 3.8       | 100    | 79.0    | 31.9        | 15.0    | 375     |            |
| AC <sup>®</sup> Lillian | 96               | 99       | 3.1       | 97     | 78.1    | 35.0        | 16.3    | 398     | VP         |
| AC® Carberry            | 111              | 101      | 1.7       | 85     | 80.8    | 35.0        | 15.2    | 377     | G          |

<sup>&#</sup>x27;AC' is an official mark used under license from Agriculture & Agri-Food Canada

# 2013 Seed Manitoba - Wheat Comparison

|                           |                      |                |                         | Relative |        |                | Resistance to: |           |               |       |      |              |              |     |  |  |  |
|---------------------------|----------------------|----------------|-------------------------|----------|--------|----------------|----------------|-----------|---------------|-------|------|--------------|--------------|-----|--|--|--|
| Variety                   | Site Years<br>Tested | Yield<br>bu/ac | Protein (+/- AC Barrie) | Maturity | Heiaht | Spike<br>Awned | Lodaina        | Sprouting | Loose<br>Smut | Bunt  | Leaf | Stem<br>Rust | Leaf<br>Rust | FHB |  |  |  |
|                           | resteu               | Durac          | (+/- AC Bairle)         | (days)   |        | Awileu         | Lodging        | Sprouting |               | Duiit | Spot |              |              | ГПБ |  |  |  |
| AC Barrie                 | 164                  | 55             | 14.5                    | 99       | 37"    | N              | G              | G         | MR            | I     | MS   | MR           | MS           | I   |  |  |  |
| 5602HR                    | 90                   | 60             | 14.9                    | +1       | 0      | Υ              | F              | F         | R             | MR    | I    | R            | R            | MR  |  |  |  |
| AC® KANE                  | 78                   | 58             | 14.6                    | +1       | -2     | Υ              | G              | VG        | MS            | I     | I    | R            | R            | ı   |  |  |  |
| Harvest                   | 61                   | 58             | 14.3                    | -1       | -2     | N              | VG             | VG        | MR            | S     | MS   | R            | MR           | S   |  |  |  |
| Superb                    | 83                   | 58             | 14.4                    | +2       | -3     | Υ              | VG             | F         | 1             | MR    | MS   | R            | S            | MS  |  |  |  |
| AC <sup>®</sup> Unity VB* | 53                   | 62             | 14.2                    | 0        | 0      | Υ              | F              | G         | MS            | R     | I    | MR           | R            | I   |  |  |  |
| AC® Carberry              | 40                   | 58             | 14.6                    | +2       | -5     | Υ              | VG             | F         | MR            | R     | MS   | MR           | R            | MR  |  |  |  |

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

|                         |        | Yield a | s % of | AC Barrie  |         | Resistance to: |           |      |      |        |       |      |      |     |          |           | Seed   | Test    |      |
|-------------------------|--------|---------|--------|------------|---------|----------------|-----------|------|------|--------|-------|------|------|-----|----------|-----------|--------|---------|------|
|                         | Years  | Area    | Area   |            |         |                |           | Stem | Leaf | Stripe | Loose |      | Leaf |     | Maturity | _         | Weight |         |      |
| Variety                 | Tested | 1 & 2   | 3 & 4  | Irrigation | Protein | Lodging        | Sprouting | Rust | Rust | Rust   | Smut  | Bunt | Spot | FHB | (days)   | Awnedness | (mg)   | (kg/hl) | (cm) |
| AC Barrie               | 11     | 100     | 100    | 100        | 14.9    | G              | G         | G    | Р    | VP     | G     | F    | Р    | F   | 100      | N         | 36.0   | 79.9    | 93   |
| Harvest                 | 6      | 101     | 104    |            | -0.4    | VG             | VG        | VG   | G    | G      | G     | F    | Р    | VP  | -1       | N         | -0.4   | +0.1    | -6   |
| AC <sup>®</sup> Lillian | 7      | 102     | 99     |            | +0.3    | F              | G         | G    | VG   | VG     | F     | G    | G    | VP  | 0        | N         | -0.3   | -1.1    | -1   |
| McKenzie                | 6      | 107     | 103    | 109        | -0.4    | F              | G         | VG   | VG   | Р      | VP    | VG   | Р    | F   | -1       | Y         | -1.5   | +0.1    | +1   |
| AC® Stettler            | 5      | 115     | 110    |            | +0.2    | G              | G         | G    | Р    | G      | VG    | G    | Р    | Р   | +1       | Y         | -0.6   | 0.0     | -6   |
| Superb                  | 7      | 109     | 108    |            | -0.4    | G              | F         | VG   | Р    | VP     | F     | G    | VP   | Р   | +3       | Υ         | +2.6   | -0.5    | -7   |
| AC® Carberry            | 4      | 110     | 104    |            | -0.1    | VG             | F         | G    | VG   | G      | G     | VG   | Р    | G   | +3       | Υ         | +1.2   | +1.2    | -12  |

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

2013 Alberta Seed Guide - CWRS Wheat Comparison

|                         | Overal       | I Yield (1)                    | Test Y               | ield Categ              | jory (2)             |                    |              |                           |                            |             | Resis | tance to: | Disease Resistance: |      |                |              |     |  |  |  |
|-------------------------|--------------|--------------------------------|----------------------|-------------------------|----------------------|--------------------|--------------|---------------------------|----------------------------|-------------|-------|-----------|---------------------|------|----------------|--------------|-----|--|--|--|
| Variety                 | All<br>Sites | Station<br>years of<br>testing | Low<br>< 45<br>bu/ac | Med<br>45 - 70<br>bu/ac | High<br>>70<br>bu/ac | Maturity<br>Rating | Protein<br>% | Test<br>Weight<br>(lb/bu) | Kernel<br>Weight<br>g/1000 | Height (cm) | Ldg.  | Sprout    | Loose<br>Smut       | Bunt | Stripe<br>Rust | Leaf<br>Spot | FHB |  |  |  |
| Yield as % of AC Barrie |              |                                |                      |                         |                      |                    |              |                           |                            |             |       |           |                     |      |                |              |     |  |  |  |
| AC Barrie bu/ac         | 58           |                                | 36                   | 55                      | 79                   |                    |              |                           |                            |             |       |           |                     |      |                |              |     |  |  |  |
| AC Barrie               | 100          | (369)                          | 100                  | 100                     | 100                  | M                  | 14.1         | 62                        | 37                         | 88          | G     | G         |                     | F    | VP             | Р            | F   |  |  |  |
| Harvest                 | 102          | (117)                          | 98                   | 103                     | 104                  | М                  | -0.1         | 62                        | 36                         | 84          | VG    | VG        | G                   | F    | G              | Р            | VP  |  |  |  |
| AC® Lillian             | 104+         | (85)                           | 111+                 | 100                     | 104                  | М                  | +0.2         | 61                        | 37                         | 87          | G     | G         | F                   | G    | VG             | Р            | VP  |  |  |  |
| McKenzie                | 103+         | (104)                          | 101                  | 104                     | 105+                 | М                  | -0.4         | 62                        | 34                         | 90          | F     | VG        | Р                   | VG   | Р              | F            | F   |  |  |  |
| AC® Stettler            | 112+         | (69)                           | 119+                 | 109+                    | 111+                 | М                  | -0.3         | 63                        | 37                         | 84          | G     | G         | G                   | G    | G              | Р            | Р   |  |  |  |
| Superb                  | 112+         | (179)                          | 110+                 | 112+                    | 115+                 | L                  | -0.3         | 62                        | 42                         | 85          | G     | F         | F                   | G    | VP             | VP           | Р   |  |  |  |
| AC® Carberry            | 108+         | (51)                           | 117+                 | 104                     | 105                  | L                  | -0.9         | 64                        | 38                         | 78          | VG    | F         | G                   | G    | G              | Р            | G   |  |  |  |

V =Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor