

Technical Bulletin

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SeCan

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ORe3542M White Hulled Milling Oat



Progress Through Research
Le progrès grâce à la recherche

ORe3542M is a short strong strawed white hulled milling oat with good grain yield potential and very plump seed. ORe3542M is the 2nd of 2 new oat varieties from Oat Advantage, a new private breeding program near Saskatoon, SK. ORe3542M is well-suited for production across all of western Canada.

Strengths:

- High percent plump seed greater than all the checks and slightly plumper than ORe3541M
- Very low percent thins, lower than all the checks
- Grain yield greater than the average of the checks
- Very good lodging resistance, better than the checks
- Short strong straw, shorter than all the checks and slightly shorter than ORe3541M
- Resistant to crown rust and smut
- White hull

Neutral Traits:

- Similar maturity to the checks, earlier maturing in Manitoba
- Similar test weight and kernel weight to the checks
- Average groat percentage, slightly lower than the average of the checks

Weaknesses:

- Susceptible to stem rust and BYVD

Breeder:

Jim Dyck
Oat Advantage
Saskatoon, SK

PBR 91 Applied For

Currently undergoing milling evaluations

2013-14 Western Cooperative Oat Test

| Entry | Yield as % Average of Checks | Maturity (days) | Lodging 1=best 9=flat | Height (cm) | Test Weight (kg/hl) | % Plump Kernels | % Thin Kernels | % Groat | Resistance to: | | | |
|-----------------|------------------------------------|--------------------|-----------------------------|----------------|---------------------------|-----------------------|----------------------|-------------|----------------|---------------|----------|----------|
| | | | | | | | | | Stem Rust | Crown Rust | Smut | BYVD |
| CDC Dancer | 97.7 | 94.8 | 3.2 | 113.8 | 52.4 | 87.5 | 3.8 | 68.8 | I | R | R | MS |
| AC Morgan | 102.6 | 97.5 | 2.5 | 111.2 | 50.2 | 82.6 | 4.6 | 63.4 | S | S | I | MS |
| Leggett | 99.3 | 97.8 | 3.3 | 107.0 | 52.4 | 83.8 | 4.0 | 67.2 | I | R | R | MS |
| ORe3541M | 100.6 | 96.2 | 2.7 | 103.1 | 53.2 | 92.1 | 2.8 | 66.2 | S | R | R | MS |
| ORe3542M | 102.3 | 97.1 | 2.2 | 102.5 | 51.1 | 94.9 | 1.9 | 64.5 | S | R | R | S |

MR=Moderately Resistant; MS=Moderately Susceptible; S=Susceptible; R=Resistant

2019 Seed Manitoba - Oat Comparison

| Variety | Site Years Tested | Yield bu/ac | Maturity +/- 96 days | Height +/- 84cm | Test Wt. +/- 39.3lb/bu | % Hull | Hull Colour | Resistance to: | | | | |
|-----------------|-------------------|-------------|----------------------|-----------------|------------------------|-------------|--------------|----------------|----------|------------|-----------|----------|
| | | | | | | | | Lodging | Smut | Crown Rust | Stem Rust | BYDV |
| Leggett | 144 | 142 | 0 | 0 | 0 | 23.0 | White | G | R | R | I | MS |
| CDC Dancer | 40 | 138 | -3 | +13 | 0.5 | 19.6 | White | G | R | I | I | MS |
| CDC Norseman | 31 | 149 | -3 | +5 | -1.0 | 20.5 | White | G | MS | MR | S | I |
| ORe3541M | 15 | 142 | -2 | -2 | 0.6 | 23.3 | White | VG | R | R | S | MS |
| Souris | 60 | 141 | -4 | 0 | 0.5 | 20.9 | White | G | R | MS | MR | MS |
| Summit | 52 | 148 | 0 | -3 | 0.5 | 20.8 | White | G | R | I | I | I |
| ORe3542M | 15 | 145 | -1 | -2 | -1.1 | 24.4 | White | VG | R | R | S | S |

M=Medium; L=Late; VL=Very Late G=Good; VG=Very Good; P=Poor; VP = Very Poor; F=Fair; R=Resistant; MR=Moderately resistant, I=Intermediate; MS=Moderately susceptible; S=Susceptible

2019 Saskatchewan Varieties of Grain - Oat Comparison

| Variety | Yield % of CDC Dancer | | Test Weight (g/0.5L) | % Hull | % Plump | Maturity Rating | Height (cm) | Resistance to: | | | |
|-----------------|-----------------------|------------|----------------------|-------------|-----------|-----------------|-------------|----------------|-----------|------------|----------|
| | Area 1 & 2 | Area 3 & 4 | | | | | | Lodging | Stem Rust | Crown Rust | Smut |
| CDC Dancer | 100 | 100 | 253 | 19.8 | 86 | M | 103 | G | I | I | R |
| AC Morgan | 104 | 108 | 236 | 25.1 | 82 | L | 101 | VG | S | S | I |
| CDC Norseman | 109 | 107 | 241 | 20.0 | 81 | M | 102 | G | S | MR | MS |
| ORe3541M | 104 | 98 | 257 | 21.5 | 90 | L | 93 | VG | S | R | R |
| ORe3542M | 106 | 99 | 247 | 22.5 | 95 | L | 93 | VG | S | R | R |

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2019 Alberta Seed Guide - Oat Comparison

| Variety | Overall Station Years of Testing | Overall Yield | Yield as % of CDC Dancer | | | | Comp Mat (Days) | Test Weight (lb/bu) | Kernel Weight (g/1000) | Height (cm) | Resistance to: | |
|---------------------------|----------------------------------|---------------|--------------------------|---------------------|-----------------------|----------------------|-----------------|---------------------|------------------------|-------------|----------------|----------|
| | | | Low <70 bu/ac | Medium 70-100 bu/ac | High 100 to 130 bu/ac | Very High >130 bu/ac | | | | | Lodging | Smuts |
| CDC Dancer (bu/ac) | | 97 | 48 | 84 | 110 | 146 | | | | | | |
| CDC Dancer | | 100 | 100 | 100 | 100 | 100 | E | 41 | 37 | 96 | G | R |
| AC Morgan | 86 | 113 | 114 | 110 | 117 | 114 | M | 40 | 41 | 93 | VG | I |
| CDC Norseman | 27 | 101 | XX | 100 | 101 | XX | E | 41 | 38 | 94 | G | MS |
| ORe3541M | 24 | 102 | XX | 95 | 107 | 103 | M | 41 | 41 | 90 | VG | R |
| ORe3542M | 24 | 108 | XX | 103 | 113 | 105 | M | 40 | 42 | 89 | VG | R |

VG=Very Good; G=Good; F=Fair; P=Poor; VP=Very Poor; R=Resistant; MR=Moderately resistant, I=Intermediate; MS=Moderately susceptible; S=Susceptible