

Technical Bulletin

Genes that fit *your* farm.



CDC Kernen Flax



Description:

CDC Kernen is a large seeded, high yielding brown seeded flax variety with good lodging resistance and late maturity.

Adaptation:

- All flax growing areas of western Canada.

Pedigree:

- CDC Sorrel/F03279//CDC Sorrel/F03074

Strengths:

- 106% grain yield of CDC Glas and 108% of CDC Bethune across all zones in the registration trials
- Larger seed size – 6.09g for CDC Kernen vs 5.38g for CDC Glas and 5.93g for CDC Bethune in registration trials
- Resistant to flax rust and moderately resistant to fusarium wilt and powdery mildew
- Significantly higher linolenic acid content compared to CDC Glas and CDC Bethune in registration trials

Neutral Traits:

- +2cm taller than CDC Glas and +3 taller than CDC Bethune
- Good lodging resistance but slightly weaker straw than CDC Glas and CDC Bethune
- Oil content similar to the checks

Weaknesses:

- 2 day later maturing than CDC Bethune

Breeder:

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University of Saskatchewan
Saskatoon, SK

PBR 91 Pending

2018 and 2019 Linseed Co-op Trials

| Variety | Yield as % CDC Glas | Maturity (days) | Lodging 1 = erect 9 = flat | Height (cm) | 1000 Seed Weight (g) | Oil Content (%) | Iodine Number | Linolenic Acid Content (%) | Seed Protein Content (%) | Meal Protein Content (%) |
|-------------------|---------------------|-----------------|----------------------------|-------------|----------------------|-----------------|---------------|----------------------------|--------------------------|--------------------------|
| CDC Bethune | 98 | 105 | 1.2 | 59.8 | 5.93 | 44.7 | 186 | 53.2 | 22.2 | 40.1 |
| CDC Glas | 100 | 106 | 1.2 | 60.5 | 5.38 | 45.3 | 189 | 54.5 | 21.7 | 39.6 |
| CDC Rowland | 103 | 110 | 1.3 | 59.8 | 6.76 | 45.0 | 194 | 58.2 | 21.7 | 39.3 |
| CDC Kernen | 106 | 108 | 1.6 | 62.5 | 6.09 | 45.1 | 192 | 57.1 | 21.4 | 38.9 |

2024 Seed Manitoba Flax Comparison

| Variety | Site Years | Yield bu/ac | Maturity +/- 102 days | Height +/- 68 cm | Seed Colour | Seed Size TKW | Oil Content (%) | Oil Quality | | Resistance to: | |
|-------------------|------------|-------------|-----------------------|------------------|--------------|---------------|-----------------|---------------|-------------|----------------|---------------|
| | | | | | | | | Iodine Number | ALA Content | Lodging | Fusarium Wilt |
| AAC Bright | 15 | 36 | +2 | 0 | Yellow | 5.6 | 48.8 | 192.1 | 56.2 | G | MR |
| CDC Bethune | 84 | 34 | 0 | 0 | Brown | 5.8 | 45.6 | 188.6 | 54.7 | G | MR |
| CDC Esme | 10 | 37 | +2 | -2 | Brown | 6.3 | 44.5 | 192.0 | 57.1 | G | MR |
| CDC Glas | 42 | 36 | +1 | +3 | Brown | 5.2 | 45.8 | 192.0 | 56.6 | G | MR |
| CDC Plava | 21 | 35 | -2 | -3 | Brown | 5.7 | 46.5 | 195.5 | 57.2 | G | MR |
| CDC Rowland | 28 | 38 | +4 | 0 | Brown | 6.8 | 45.2 | 195.1 | 59.2 | G | MR |
| CDC Sorrel | 56 | 34 | +1 | +3 | Brown | 6.4 | 45.1 | 192.7 | 57.8 | F | MR |
| CDC Kernen | 18 | 37 | +1 | 0 | Brown | 6.5 | 45.4 | 191.6 | 57.3 | VG | MR |

M=Medium; ME=Medium Early; ML=Medium Late; MR=Moderately Resistant; VG=Very Good; FG=Fair to Good; P=Poor

2024 Saskatchewan Varieties of Grain Flax Comparison

| Variety | Years Tested | Yield as % of CDC Glas | | | | Relative Maturity +/- 101 days | Seed Size | Resistance to: | | |
|--------------------------|--------------|------------------------|--------------|------------------|------------|--------------------------------|-----------|----------------|----------------|---------------|
| | | Area 1 & 2 | Area 3 South | Area 3 North & 4 | Irrigation | | | Lodging | Powdery Mildew | Fusarium Wilt |
| CDC Glas | 11 | 100 | 100 | 100 | 100 | 0 | M | VG | MR | MR |
| AAC Bright (yellow seed) | 6 | 93 | 95 | 95 | 96 | +1 | M | G | MR | MR |
| CDC Bethune | 15 | 95 | 95 | 99 | 103 | -1 | M | G | MR | MR |
| CDC Esme | 5 | 102 | 103 | 99 | --- | +3 | L | G | --- | MR |
| CDC Plava | 5 | 93 | 97 | 96 | 94 | -3 | M | G | --- | MR |
| CDC Rowland | 7 | 101 | 107 | 102 | 103 | +3 | L | G | MR | MR |
| CDC Sorrel | 4 | 91 | 87 | 94 | 99 | 0 | L | G | MR | MR |
| CDC Kernen | 6 | 100 | 103 | 102 | 102 | +1 | L | G | MR | MR |

M=Medium; L=Late S=Small; M=Medium; L=Large G=Good; VG=Very Good; F=Fair; P=Poor

R=Resistant; MR=Moderately resistant, I=Intermediate; MS=Moderately susceptible; S=Susceptible

2024 Alberta Seed Guide Flax Comparison

| Variety | Most Recent Year of Testing | Overall Station Years of Testing | Overall Yield | Yield Category (% CDC Glas) | | Agronomic Characteristics | | | | | Disease Tolerance | | Quality | | |
|-------------------------|-----------------------------|----------------------------------|---------------|-----------------------------|------------------|-------------------------------------|--------------|-----------|-------------|-----------------------|-------------------|----------------|-----------------|-----------------|--------------|
| | | | | Low <37 (bu/ac) | High >37 (bu/ac) | Maturity Rating (Days +/- CDC Glas) | Seed Colour | Seed Size | Height (cm) | Resistance to Lodging | Fusarium Wilt | Powdery Mildew | Oil Content (%) | ALA Content (%) | Iodine Value |
| CDC Glas (bu/ac) | | | 4136 | 25 | 53 | | | | | | | | | | |
| CDC Glas | 2023 | 68 | 100 | 100 | 100 | 108 | Brown | M | 62 | G | MR | MR | 46 | 57 | 192 |
| CDC Bethune | 2022 | 47 | 96 | 95 | 96 | -1 | Brown | M | 61 | G | MR | MR | 46 | 55 | 189 |
| CDC Esme | 2023 | 25 | 105 | 109 | 101 | +4 | Brown | L | 61 | G | MR | NT | 46 | 59 | 195 |
| CDC Plava | 2016 | 26 | 96 | 101 | 87 | -3 | Brown | M | 51 | G | MR | NT | 47 | 57 | 196 |
| CDC Rowland | 2023 | 24 | 104 | 104 | 104 | +4 | Brown | L | 61 | G | MR | MR | 45 | 59 | 195 |
| CDC Sorrel | 2008 | 14 | 104 | 110 | 99 | 0 | Brown | L | 61 | F | MR | MR | 45 | 58 | 193 |
| CDC Kernen | 2023 | 34 | 102 | 107 | 99 | 0 | Brown | M | 64 | G | MR | MR | 45 | 57 | 191 |

S=Small, M=Medium, L=Large; VG=Very Good; G=Good; F=Fair; P=Poor; VP=Very; R=Resistant; MR=Moderately resistant, I=Intermediate; MS=Moderately susceptible; S=Susceptible; NT = Not tested

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