

AC[®] Prairie Blue

Flax



Strengths:

- 8 to 10% higher yield than Flanders in the black soils of Manitoba
- Better lodging resistance than Flanders
- Resistance to flax rust and fusarium wilt similar to Flanders

Weaknesses:

- One day later maturing than Flanders

Breeder:

Dr. Scott Duguid
AAFC Morden, Manitoba

Neutral Traits:

- Seed size similar to Flanders
- High oil content and high oil quality (high iodine number)

1999 to 2001 Western Cooperative Flax Registration Trials

| Entry | Yield (%) of Norlin | Maturity (days) | Lodging 1 = erect 9 = flat | Height (cm) | 1000 Seed Wt (gm) | Oil Content (%) | Iodine Number | Protein Content (%) |
|---------------------|---------------------|-----------------|----------------------------|-------------|-------------------|-----------------|---------------|---------------------|
| Flanders | 100 | 101.7 | 2.7 | 61.2 | 5.3 | 45.0 | 190.7 | 42.5 |
| Vimy | 92 | 99.1 | 4.6 | 63.2 | 6.1 | 44.4 | 191.1 | 43.6 |
| Prairie Blue | 108 | 102.5 | 1.6 | 62.9 | 5.2 | 45.9 | 191.0 | 43.0 |

Hanley

Flax



Strengths:

- Consistently higher yield than Norlin and Flanders in all soil zones
- Average of 6% higher yield than Flanders in 1998 to 2000 Coop trials
- 3 days earlier than Flanders, and two days earlier than Bethune
- Better lodging resistance than Norlin and Flanders
- Resistant to flax rust and fusarium wilt

- Height similar to Norlin
- Very high oil quality (high iodine number)

Weaknesses:

- Matures one day later than Norlin under late seeding, (but 3 days earlier than Flanders under late seeding)

Breeder:

Dr. Scott Duguid
AAFC Morden, Manitoba

Neutral Traits:

- Seed size similar to Norlin but larger than Flanders

1998 to 2000 Western Cooperative Flax Registration Trials

| Entry | Yield (%) of Norlin | Maturity (days) | Lodging 1 = erect 9 = flat | Height (cm) | 1000 Seed Wt (gm) | Oil Content (%) | Iodine Number | Protein Content (%) |
|---------------|---------------------|-----------------|----------------------------|-------------|-------------------|-----------------|---------------|---------------------|
| Flanders | 100 | 100.8 | 3.0 | 64.9 | 5.1 | 44.4 | 189.6 | 41.6 |
| Norlin | 99 | 98.9 | 2.5 | 65.7 | 5.5 | 42.4 | 187.4 | 41.7 |
| Hanley | 106 | 97.8 | 2.1 | 64.5 | 5.5 | 43.7 | 195.4 | 41.4 |



Strengths:

- **Consistently high yield**
- 110% higher yield than Norlin in Cooperative Registration Trials (1995 to 1997 Coop Trials)
- Very strong straw, similar to McDuff in lodging resistance
- 2 days earlier than McDuff,
- More resistant to fusarium wilt than Norlin or Flanders

Neutral Traits:

- 3 cm taller than Norlin and Flanders
- Medium seed size, slightly larger than Norlin, McDuff and Flanders

- 1 day earlier than Flanders, 1 ½ days later than Norlin

Weaknesses:

- Yield similar to Norlin, McDuff and Flanders under late seeding
- Matures 4 to 5 days later than Norlin under late seeding (but 2 days earlier maturing than McDuff under late seeding)

Breeder:

Dr. Gordon Rowland
Crop Development Centre
University of Saskatchewan

1995 to 1997 Western Cooperative Flax Registration Trials

| Entry | Yield (%) of Norlin | Maturity (days) | Lodging 1 = erect 9 = flat | Height (cm) | 1000 Seed Wt (gm) | Oil Content (%) | Iodine Number | Protein Content (%) |
|--------------------|---------------------|-----------------|----------------------------|-------------|-------------------|-----------------|---------------|---------------------|
| Flanders | 100 | 102.1 | 4.0 | 61.8 | 5.4 | 45.4 | 191.3 | 35.3 |
| McDuff | 101 | 103.4 | 2.3 | 64.7 | 5.7 | 47.7 | 188.7 | 35.7 |
| Norlin | 96 | 99.8 | 3.8 | 62.4 | 5.8 | 43.4 | 188.9 | 35.2 |
| CDC Normandy | 102 | 99.4 | 3.8 | 61.8 | 5.7 | 43.4 | 189.5 | 35.1 |
| CDC Bethune | 106 | 101.3 | 2.5 | 65.1 | 5.9 | 45.6 | 187.6 | 35.7 |

2006 Saskatchewan Varieties of Grain Flax Comparison

| Variety | Years Tested | Yield as % of CDC Bethune | | | Maturity | Seed Size | Resistance to Lodging |
|---------------------|--------------|---------------------------|------------|------------|----------|-----------|-----------------------|
| | | Areas 1&2 | Areas 3&4 | Irrigation | | | |
| Vimy | 10 | 94 | 90 | 85 | M | L | P |
| Flanders | 10 | 90 | 87 | 91 | L | S | G |
| CDC Normandy | 6 | 91 | 93 | 89 | M | M | F |
| CDC Bethune | 10 | 100 | 100 | 100 | L | M | G |
| Hanley | 4 | 90 | 90 | 93 | M | M | G |
| Prairie Blue | 4 | 99 | 92 | 97 | L | S | VG |

Maturity: M=Medium; L=Late; VL=Very Late
Lodging: VG=Very Good; G=Good; F=Fair; P=Poor;

Seed Size: S=Small; M=Medium; L=Large

Seed Manitoba 2006 Flax Comparison

| Variety | Site Years | Long Term Average Yield (% of Bethune) | Maturity | Height | Lodging Resistance | Seed Size | Oil Content | Oil Quality | Resistance to: | |
|---------------------|------------|----------------------------------------|-----------|-----------|--------------------|-----------|-------------|-------------|----------------|----------------|
| | | | | | | | | | Fusarium Wilt | Powdery Mildew |
| NorLin | 76 | 91 | M | M | G | M | M | M | MR | S |
| AC Carnduff | 27 | 91 | ML | MT | G | L | H | H | MR | MR |
| AC Emerson | 53 | 92 | M | M | F | ML | M | VH | R | MR |
| CDC Normandy | 18 | 86 | M | M | FG | M | M | M | MR | S |
| Flanders | 14 | 91 | ML | M | FG | S | H | MH | MR | MR |
| CDC Bethune | | 100 | ML | MT | VG | M | H | L | MR | MR |
| Hanley | 44 | 98 | ME | M | VG | M | M | VH | R | MR |
| Prairie Blue | 40 | 101 | ML | MT | VG | S | H | H | MR | MR |

Maturity: ME=Medium Early; M=Medium; ML=Medium Late

Height: M=Medium; MT=Medium Tall

Lodging Resistance: VG=Very Good; G=Good; FG=Fair to Good; F=Fair

Seed Size: S=Small; M=Medium; ML=Medium Large; L=Large

Oil Content & Quality: L=Low; M=Medium; MH=Medium High; H=High; VH=Very High

Fusarium & Mildew: R=Resistant; MR=Moderately Resistant; S=Susceptible