

FORAGE PEA: CDC JASPER

Breeder: Dr. Tom Warkentin
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Year released to Select Seed Growers: 2016

Sub-licensed outside of SK: SeCan

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Plant Breeders Rights: PBR'91

CDC Jasper is a forage field pea variety with high biomass production. In four years of testing in the pea forage elite trials (2012–2015), CDC Jasper had the highest biomass versus other forage pea varieties commonly grown in Western Canada. Dry matter was 105% of the forage pea check variety 40-10 (Table 1). Relative to other forage pea varieties, CDC Jasper had high grain yield, good lodging resistance, and larger seed size (Tables 1 & 2). In the co-op and regional trials in Saskatchewan, CDC Jasper had high protein relative to the check variety CDC Amarillo. CDC Jasper has PBR'91 protection.

Strengths:

- High biomass
- High grain yield versus other forage pea varieties
- High protein versus CDC Amarillo
- Resistant to powdery mildew
- Very good resistance to seed coat breakage

Neutral:

- Medium maturity
- Good lodging resistance
- Fair resistance to Mycosphaerella Blight



Table 1: Agronomic Performance for CDC Jasper from 2012 to 2015 Pea Silage Elite Trials (10 site years)

| Variety | Year Released | Yield % of 40-10 | | Height | Lodging | Maturity (1-3) | Seed Weight (g/1000) | Description |
|---------------|---------------|------------------|------------|--------|---------|----------------|----------------------|---|
| | | Grain Yield | Dry Matter | | | | | |
| 40-10 (check) | n/a | 100 | 100 | 133 | 7.8 | 3 | 128 | Small seed size and tall. Fully leaved variety with speckled seed coat. Poor lodging. |
| CDC Tucker | 2006 | 140 | 98 | 92 | 4 | 2.5 | 158 | High biomass, improved protein, and relative feed value compared to Trapper and 40-10 |
| CDC Leroy | 2008 | 124 | 89 | 84 | 5.2 | 1.8 | 132 | High biomass, improved protein, and relative feed value compared to Trapper and 40-10 |
| CDC Horizon | 2010 | 130 | 100 | 97 | 3.8 | 2.3 | 142 | High biomass with similar feed value to Trapper and 40-10 |
| CDC Jasper | 2016 | 133 | 105 | 98 | 3.9 | 2.5 | 175 | Highest biomass combined with high grain yield and high relative feed value |

Source: CDC Pulse breeding group, Crop Development Centre, U of S
Lodging score: 1=Upright; 9=Completely lodged

Table 2: Agronomic Performance for CDC Jasper from Co-op and Regional Trials in Saskatchewan – Adapted from Varieties of Grain Crops 2019

| Variety | Year Registered | Years Tested | Yield % Amarillo | | Maturity | Lodging (1-9) | Vine Length | Resistance to: | | | | Seed Weight (g/1000) | Protein vs. CDC Amarillo |
|----------------------|-----------------|--------------|------------------|--------------|----------|---------------|-------------|-----------------------|----------------|--------------------|--------------------|----------------------|--------------------------|
| | | | 1, 2 & South 3* | North 3 & 4* | | | | Mycosphaerella Blight | Powdery Mildew | Seed Coat Breakage | Seed Coat Dimpling | | |
| CDC Amarillo (check) | 2012 | 10 | 100 | 100 | Medium | 3.5 | 85 | 4.5 | R | Fair | Fair | 230 | 23.0 |
| 40-10 | n/a | 3 | 68 | 65 | Medium | 8.5 | 130 | 4.5 | S | Good | Good | 140 | +3.2 |
| CDC Jasper | 2016 | 3 | 81 | 82 | Medium | 4.5 | 105 | 4.5 | R | Good | Good | 180 | +2.0 |
| CDC Horizon | 2010 | 4 | 88 | 78 | Medium | 4.5 | 100 | 4.5 | R | Good | Good | 170 | +2.2 |

Source: Varieties of Grain Crops 2019 (2019 SaskSeed Guide)

*Area 1: Brown soil zone; Area 2: Dark Brown; Area 3: Black; Area 4: Dark Gray

Lodging score: 1=Upright; 9=Completely lodged

Mycosphaerella blight score (1-9) 1=No disease, 9=Completely blighted

Seed coat dimpling: VG = 0-5%; G = 6-20%; F = 21-50%