Most Promising Bean Varieties from AAFC-Lethbridge and Morden

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IRRIGATED Alberta / Saskatchewan

1. **AC Redbond**, ‘small red’ (Red Mexican), registered April 1999

   ‘AC Redbond’ is a high-yielding (2.82 t/ha vs. NW63 2.42), upright, early-maturing (99 d vs 102 for NW63), small red dry bean cultivar with moderate resistance to white mold, well adapted to wide or narrow rows. AC Redbond has the type IIb, indeterminate growth habit with erect stem and branches, in contrast to the type IIIb of NW63, with weak to prostrate stems.


   ‘AC Black Diamond’ is a high-yielding (6% higher than UI906), large-seeded, shiny black dry bean cultivar. It was developed from a series of crosses at CIAT, Colombia, on contract to AAFC, Lethbridge. AC Black Diamond is well adapted to the Canadian prairies, yielding significantly more than the check cultivar, UI906, at 122% in narrow-rows and 106% in wide-rows. AC Black Diamond is moderately susceptible to white mold and resistant to Bean Common Mosaic Virus (BCMV). The seed of AC Black Diamond turns to harvest colour prior to the other two cultivars, the risk of fall frost should be less for AC Black Diamond. AC Black Diamond has the type Ila.

3. **AC Polaris**, great northern, registered March 2000

   ‘AC Polaris’ (PI 613178) is a high yielding (compared to US1140 and CDC Nordic) great northern dry bean. In irrigated trials, AC Polaris has Type IIB growth habit. Pods are higher on plants of AC Polaris and more widely distributed than on US 1140. The seed mass of AC Polaris averaged slightly lower than that of US 1140. AC Polaris is resistant to strains 1 and 15 of BCMV, while both checks, US1140 and CDC Nordic, are susceptible. In contrast to the susceptible check, US1140, and similar to the moderately susceptible check, CDC Nordic, AC Polaris is moderately susceptible to white mold.

MANITOBA


   ‘AC Scarlet’ is a high-yielding small red dry bean cultivar. It was developed from a series of crosses at CIAT, Colombia, on contract to AAFC, Lethbridge. AC Scarlet is well adapted to the eastern Canadian prairies, yielding significantly more than the check cultivar NW 63. AC Scarlet is moderately susceptible to white mold. The seed of AC Scarlet is significantly greater than that of NW 63. AC Scarlet has moderately good lodging resistance. AC Scarlet has the type Ila, indeterminate growth habit.

‘AC Alert’ is a common dry bean with an upright growth habit and high bearing pods. AC Alert, maturing at the same time as US1140, is a high-yielding cultivar suited specially to southern Manitoba, the higher heat-unit eastern prairies in Canada. AC Alert has better lodging resistance than US1140. AC Alert carries the pods in the upper part of the plant. The hydration coefficient and percentage drained wet weight of AC Alert are significantly greater than those of US1140, giving Alert an improved cooking quality over US1140. AC Alert has the type IIa, indeterminate growth habit. The seed mass of AC Alert is greater than that of US1140. AC Alert is resistant to strains 1 and 15 of BCMV. AC Alert is moderately resistant to white mold compared to the susceptible US1140. AC Alert was resistant to the delta race of *Colletotrichum lindemuthianum*.

6. **AC Black Violet**, (opaque) black, registered March 2003

‘AC Black Violet’ is a high yielding (in narrow rows), large-seeded, purple-podded, black dry bean, with moderate resistance to white mold, specially suited to the longer growing season regions of Manitoba, Canada. AC Black Violet has good lodging resistance and a type IIa, indeterminate growth habit. It is resistant to the delta race of anthracnose and moderately resistant to race 1096. AC Black Violet is resistant to race 15 of BCMV, and has variable resistance to race 1, with a necrosis, followed by death resulting in over half the infected plants.

7. **AC Morden003**, ‘navy’, registered March 2003

‘AC Morden003’ is an early-maturing (101 d vs. 106 d for Envoy) navy bean cultivar suited for production specially in narrow-rows in southern Manitoba. AC Morden003 is upright and has the type I, determinate growth habit, with strong erect stem and branches. AC Morden003 is moderately resistant to white mold; and resistant to alpha-Brazil, race 173, and race 1096, moderately resistant to the delta race of anthracnose, Morden003 is resistant to strains 1 (with some plants displaying necrotic symptoms which may lead to death of plant) and 15 of BCMV.

ACROSS PRAIRIES

8. **AC Early Rose**, ‘pink’, registered April 2003

‘AC Early Rose’ is a high-yielding, very early-maturing cultivar suited for production specially in narrow-rows across the Canadian prairies. The seed of Early Rose is greater than that of Viva. AC Early Rose is moderately upright having a type IIa, indeterminate growth habit, with strong erect stem and branches. AC Early Rose is resistant to both the yellow and orange strains of bacterial wilt, while the check, Viva is moderately resistant to the yellow strain and also resistant to the orange strain. AC Early Rose is moderately susceptible to white mold, as is the check, Viva. AC Early Rose is resistant to races 1 and 15 of BCMV. AC Early Rose is moderately susceptible to the delta race of anthracnose.