



APPLICATIONS UNDER EXAMINATION

CANOLA QUALITY ORIENTAL MUSTARD

**CANOLA QUALITY ORIENTAL MUSTARD**  
*(Brassica juncea)*

**Proposed denomination:** '8571'  
**Application number:** 08-6300  
**Application date:** 2008/04/21  
**Applicant:** Viterra Inc., Saskatoon, Saskatchewan  
**Breeder:** Derek Potts, Viterra Inc., Saskatoon, Saskatchewan

Note: The applicant has requested an exemption from compulsory licensing to allow time to multiply and distribute propagating material of the variety. If the exemption is granted, it may be allowed for two years from the date rights are granted for the variety.

**Varieties used for comparison:** 'Arid', 'Dahinda' and 'Davin'

**Summary:** '8571' is resistant to imidazolinone herbicides whereas the reference varieties are not. The leaves of '8571' have medium to strong rugosity whereas the leaves of 'Arid' have weak to medium rugosity. The leaves of '8571' are longer than those of 'Arid' and 'Dahinda'. '8571' flowers earlier than 'Davin' and later than 'Arid' and 'Dahinda'. '8571' matures later than 'Dahinda' and earlier than 'Davin'. Plant height at maturity of '8571' is taller than that of 'Arid'.

**Description:**

**PLANT:** open pollinated, spring seasonal type, tall at maturity

**LEAF:** medium green, medium number of lobes, sharp margin, medium depth dentations, medium to strong rugosity

**FLOWERS:** yellow, all anthers shedding

**SILIQUE:** semi-erect attitude, medium length, medium length beak, medium length pedicel

**SEED:** yellow

**AGRONOMIC CHARACTERISTICS:** good resistance to lodging

**QUALITY CHARACTERISTICS:** erucic acid 0.2% of total fatty acids, oil content 43.3% of whole dried seed, protein 48.5% of dried oil free meal, low glucosinolates 13.2 umol/gm of whole seed, allyl 0.4 umol/gm of whole seed

**REACTION TO CHEMICALS:** resistant to imidazolinone

**DISEASE RESISTANCE:** resistant to moderately resistant to Blackleg (*Leptosphaeria maculans* asexual stage: *Phoma lingam*), moderately resistant to moderately susceptible to White Rust (*Albugo candida*, race 2A) and moderately susceptible to susceptible to White Rust (*Albugo candida*, race 2V)

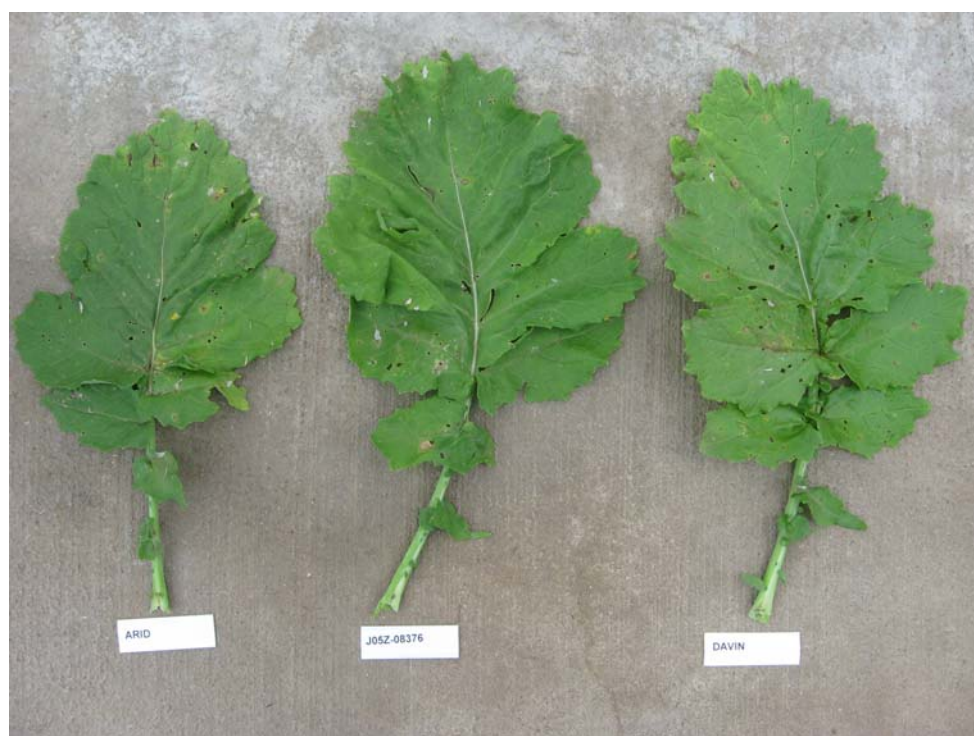
**Origin and Breeding:** '8571' is a microspore derived doubled haploid line produced from the cross 'Davin'//J04E-0044/J03Z-16440, made in 2004 by Viterra Research and Development staff in Saskatoon, Saskatchewan. Following chromosome doubling, the original DH plant was grown in a greenhouse and self-pollinated. The line was selected and designated J05Z-08376. Nursery rows were grown near Temuco, Chile in 2005-2006. Selection was based on agronomic performance, canola-quality traits and resistance to imidazolinone herbicide. '8571' was entered into a first year (private data) Co-op trial in 2006. Based on good agronomic performance and quality characteristics, it was entered a second year of registration trials in 2007.

**Tests and Trials:** Trials were grown during the summers of 2007 and 2008 in Watrous, Saskatchewan. Plots consisted of 5 rows with a row spacing of 22 centimeters and a row length of 1.3 meters. There were 2 replicates arranged in a RCB design.

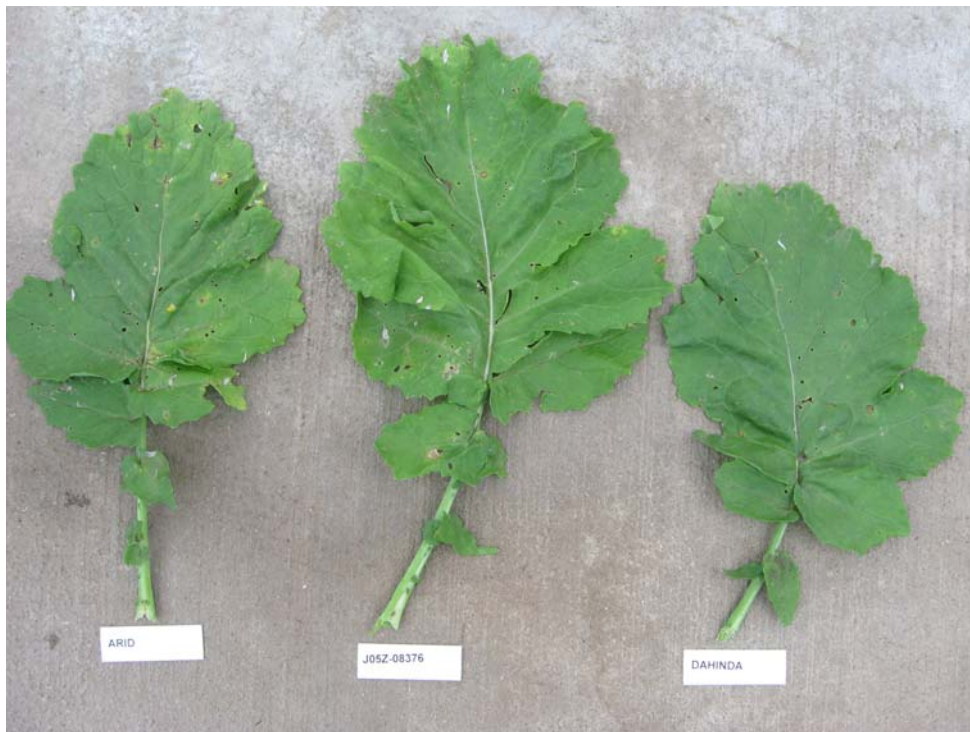
## Comparison table for '8571'

	'8571'	'Arid'*	'Dahinda**	'Davin**
<i>Leaf length (cm)</i>				
mean (LSD=2.2)	25.8	21.5	21.8	25.9
std. deviation	3.99	3.33	3.61	2.73
<i>Days to flowering (days from planting to when 50% of plants show one or more open flowers)</i>				
mean	49.4	47.8	47.0	51.9
<i>Maturity (days from planting to maturity)</i>				
mean	92.4	91.6	89.3	94.7
<i>Plant height at maturity (cm)</i>				
mean (LSD=13.0)	130.0	113.3	119.1	130.1
std. deviation	5.01	3.85	5.66	4.66

\*reference varieties



Canola Quality Oriental Mustard: '8571' (centre) with reference varieties 'Arid' (left) and 'Davin' (right)



Canola Quality Oriental Mustard: '8571' (centre) with reference varieties 'Arid' (left) and 'Dahinda' (right)