



APPLICATIONS UNDER EXAMINATION

CANOLA

CANOLA
(Brassica napus)

Proposed denomination: 'MSL SW 872C RR'
Application number: 10-6940
Application date: 2010/04/22
Applicant: Lantmännen SW Seed AB & Norddeutsche Pflanzenzucht, Hohenlieth, Germany
Agent in Canada: Lantmännen SW Seed Ltd., Saskatoon, Saskatchewan
Breeder: Lantmännen SW Seed AB & Norddeutsche Pflanzenzucht, Hohenlieth, Germany

Varieties used for comparison: 'MSL 527C' and '9551'

Summary: 'MSL SW 872C RR' has more leaf lobes than 'MSL 527C'. The leaf width of 'MSL SW 872C RR' is wider than 'MSL 527C'. 'MSL SW 872C RR' has a shorter silique than 'MSL 527C'. The beak of 'MSL SW 872C RR' is shorter than '9551'. 'MSL SW 872C RR' has a shorter pedicel than the reference varieties. The plant height of 'MSL SW 872C RR' at maturity is taller than '9551'.

Description:

PLANT: male sterile inbred line, spring seasonal type, tall height at maturity

LEAF: medium green, medium number of lobes, rounded margin, low density of very shallow to shallow dentations, long, wide

FLOWER PETALS: yellow

SILIQUE: medium length, short to medium length beak, short to medium length pedicel

QUALITY CHARACTERISTICS: erucic acid is less than 0.1% of total fatty acids, low glucosinolates (10-15 umol/gm)

Origin and Breeding: 'MSL SW 872C RR' is a male sterile inbred line used in F1 hybrid production, that contains the RT73 gene construct conveying tolerance to glyphosate. The final cross took place in 2003. It was selected on the basis of male sterility, earliness, straw stiffness, high oil content, high protein content, low glucosinolate content, low erucic acid content, blackleg resistance and tolerance to glyphosate herbicide.

Tests and Trials: Trials were conducted in Prince Albert, Saskatchewan during the summers of 2009 and 2010. Plots consisted of 2 rows with a row length of 6.15 metres and a row spacing of 0.46 metres. There were 2 replicates arranged in an RCB design. Means are based on a two year average with 30 measurements/year for leaf characteristics and height and 60 measurements/year for silique, beak and pedicel characteristics.

Comparison table for 'MSL SW 872C RR'

	'MSL SW 872C RR'	'MSL 527C'*	'9551'*
<i>Leaf width (cm)</i>			
mean (LSD=0.743)	12.40	10.99	11.17
std. deviation	1.59	1.76	1.30
<i>Silique length (mm)</i>			
mean (LSD=2.824)	65.35	79.42	67.02
std. deviation	6.31	7.84	6.08
<i>Beak length (mm)</i>			
mean (LSD=0.722)	9.84	10.06	13.58
std. deviation	1.60	2.16	1.78
<i>Pedicel length (mm)</i>			
mean (LSD=1.807)	15.32	17.44	25.36
std. deviation	4.38	4.25	4.34

Plant height at maturity (cm)

mean (LSD=5.344)	131.3	137.1	110.8
std. deviation	14.13	17.30	13.44

*reference varieties



Canola: 'MSL SW 872C RR' (left) with reference variety '9551' (right)



Canola: 'MSL SW 872C RR' (left) with reference variety 'MSL 527C' (right)

Proposed denomination: 'MSL SW 880C RR'
Application number: 10-6981
Application date: 2010/05/04
Applicant: Lantmännern SW Seed AB & Norddeutsche Pflanzenzucht, Hohenlieth, Germany
Agent in Canada: Lantmännern SW Seed Ltd., Saskatoon, Saskatchewan
Breeder: Lantmännern SW Seed AB & Norddeutsche Pflanzenzucht, Hohenlieth, Germany

Varieties used for comparison: 'MSL 527C' and '9551'

Summary: 'MSL SW 880C RR' has more leaf lobes than 'MSL 527C'. The leaf width of 'MSL SW 880C RR' is wider than '9551'. 'MSL SW 880C RR' has a shorter silique than the reference varieties. The beak of 'MSL SW 880C RR' is shorter than '9551'. 'MSL SW 880C RR' has a shorter pedicel than '9551'. The plant height of 'MSL SW 880C RR' at maturity is taller than '9551'.

Description:

PLANT: male sterile inbred line, spring seasonal type, tall height at maturity

LEAF: medium green, medium number of lobes, rounded margin, low density of shallow dentations, medium to long length, medium to wide width

FLOWER PETALS: yellow

SILIQUE: medium length, medium length beak, medium length pedicel

QUALITY CHARACTERISTICS: erucic acid is less than 0.1% of total fatty acids, low glucosinolates (10-15 umol/gm)

Origin and Breeding: 'MSL SW 880C RR' is a male sterile inbred line used in F1 hybrid production, that contains the RT73 gene construct conveying tolerance to glyphosate. The final cross took place in 2003. It was selected on the basis of male sterility, earliness, straw stiffness, high oil content, high protein content, low glucosinolate content, low erucic acid content, blackleg resistance and tolerance to glyphosate herbicide.

Tests and Trials: Trials were conducted in Prince Albert, Saskatchewan during the summers of 2009 and 2010. Plots consisted of 2 rows with a row length of 6.15 metres and a row spacing of 0.46 metres. There were 2 replicates arranged in an RCB design. Means are based on a two year average with 30 measurements/year for leaf characteristics and height and 60 measurements/year for silique, beak and pedicel characteristics.

Comparison table for 'MSL SW 880C RR'

	'MSL SW 880C RR'	'MSL 527C'*	'9551'*
<i>Leaf width (cm)</i>			
mean (LSD=0.743)	12.19	10.99	11.17
std. deviation	1.70	1.76	1.30
<i>Silique length (mm)</i>			
mean (LSD=2.824)	61.93	79.42	67.02
std. deviation	5.68	7.84	6.08
<i>Beak length (mm)</i>			
mean (LSD=0.722)	10.50	10.06	13.58
std. deviation	1.75	2.16	1.78
<i>Pedicel length (mm)</i>			
mean (LSD=1.807)	15.28	17.44	25.36
std. deviation	4.08	4.25	4.34
<i>Plant height at maturity (cm)</i>			
mean (LSD=5.344)	130.1	137.1	110.8
std. deviation	12.88	17.30	13.44

*reference varieties



Canola: 'MSL SW 880C RR' (left) with reference variety '9551' (right)



Canola: 'MSL SW 880C RR' (left) with reference variety 'MSL 527C' (right)

Proposed denomination: 'PA9CN101'
Application number: 10-7028
Application date: 2010/07/08
Applicant: Bayer CropScience Inc., Saskatoon, Saskatchewan
Breeder: Stewart Brandt, Bayer CropScience 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: 'PPS02-144 A-Line', 'PPS01-140 A-Line' and '5020'

Summary: 'PA9CN101' flowers later than the reference varieties. The flower petal of 'PA9CN101' is shorter and narrower than 'PPS02-144 A-Line' and '5020'. 'PA9CN101' has a longer silique and pedicel than 'PPS01-140 A-Line'. The beak of 'PA9CN101' is shorter than 'PPS02-144 A-Line'. 'PA9CN101' has a taller plant height at maturity than 'PPS02-144 A-Line' and '5020'.

Description:

PLANT: male sterile inbred line, glufosinate ammonium tolerant, spring seasonal type, tall at maturity

COTYLEDON: medium width, medium length

LEAF: medium green, medium to many lobes, rounded to sharp margin, low density of shallow to medium depth dentations, short, narrow to medium width, short to medium petiole

FLOWER PETALS: yellow, short, narrow

SILIQUE: horizontal attitude, long, short to medium length beak, short to medium length pedicel

SEED: black

AGRONOMIC CHARACTERISTICS: fair to good resistance to lodging

QUALITY CHARACTERISTICS: erucic acid is 0.03% of total fatty acids, oil content is 47.22% of whole dried seed, protein is 25.5% of dried oil free meal, high glucosinolates (21.22 umol/gm)

DISEASE RESISTANCE: resistant to Blackleg (*Leptosphaeria maculans* asexual stage: *Phoma lingam*) and resistant to White Rust (*Albugo candida*, races 7a & 2v)

Origin and Breeding: 'PA9CN101' is a male sterile inbred line used in F1 hybrid production, that contains the Ms8 gene construct in heterozygous state. 'PA9CN101' is a doubled haploid line that was produced in Canada in 2003. It was selected in 2006 and 2007 on the basis of male sterility stability, expression of tolerance to glufosinate ammonium herbicide and good combining ability with numerous restorer lines. Other selection criteria included height, vigour, maturity, blackleg resistance, oil content, fatty acid profile and glucosinolate content.

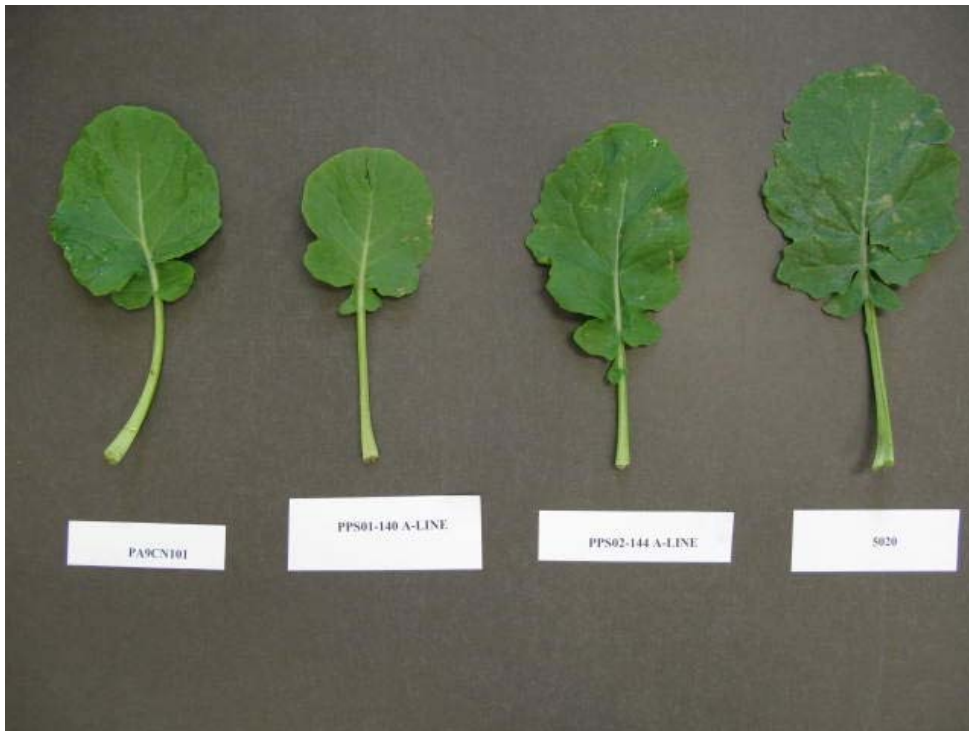
Tests and Trials: Trials were conducted in Saskatoon, Saskatchewan during the summers of 2009 and 2010. In 2009, the trial was set up with 3 replicates arranged in a RCB design. In 2010, the trial setup was 3 replicates arranged in Lattice design. Each year the plots consisted of 3 rows with a row length of 6 metres and a row spacing of 50 cm.

Comparison table for 'PA9CN101'

	'PA9CN101'	'PPS02-144 A-Line'*	'PPS01-140 A-Line'*	'5020'*
<i>Days to flowering</i>				
mean (LSD=3.3)	49.0	40.5	44.5	39.0
<i>Flower petal length (mm)</i>				
mean (LSD=1.3)	11.0	13.3	10.9	17.0
std. deviation	0.78	0.95	0.79	0.79
<i>Flower petal width (mm)</i>				
mean (LSD=0.99)	5.7	7.0	6.0	7.9
std. deviation	0.6	0.78	0.8	0.6
<i>Silique length (mm)</i>				
mean (LSD=5.4)	64.2	63.7	55.2	64.4
std. deviation	6.5	7.2	4.8	4.3
<i>Beak length (mm)</i>				
mean (LSD=3.7)	10.1	14.7	7.1	13.8
std. deviation	1.3	1.7	1.3	1.8
<i>Pedicel length (mm)</i>				

mean (LSD=2.61)	18.2	17.7	14.7	17.7
std. deviation	2.8	2.8	2.3	2.0
<i>Plant height at maturity (cm)</i>				
mean (LSD=19)	147	120.5	137.5	119.5
std. deviation	8.6	5.8	8.8	8.5
<i>Days to maturity</i>				
mean (LSD=9)	109.5	106.5	107.5	98.5

*reference varieties



Canola: 'PA9CN101' (left) with reference varieties 'PPS01-140 A-Line' (centre left), 'PPS02-144 A-Line' (centre right) and '5020' (right)

Proposed denomination: 'PB9CN201'
Application number: 10-7029
Application date: 2010/07/08
Applicant: Bayer CropScience Inc., Saskatoon, Saskatchewan
Breeder: Stewart Brandt, Bayer CropScience 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: 'PPS02-144 B-Line', 'PPS01-140 B-Line' and '5020'

Summary: 'PB9CN201' flowers later than 'PPS02-144 B-Line' and '5020'. The flower petal of 'PB9CN201' is shorter than 'PPS02-144 B-Line' and '5020' and narrower than 'PPS01-140 B-Line'. The silique of 'PB9CN201' is longer than 'PPS01-140 B-Line'. 'PB9CN201' has a shorter beak than 'PPS02-144 B-Line' and '5020'. The plant height of 'PB9CN201' at maturity is taller than 'PPS02-144 B-Line'.

Description:

PLANT: male fertile inbred maintainer line of 'PA9CN101', spring seasonal type, tall at maturity

COTYLEDON: wide, long

LEAF: medium green, medium number of lobes, undulating to rounded margin, very low to low density of shallow dentations, long, wide, long petiole

FLOWER PETALS: yellow, short to medium length, medium to wide width

SILIQUE: horizontal attitude, long, short beak, short to medium length pedicel

SEED: black

AGRONOMIC CHARACTERISTICS: fair to good resistance to lodging

QUALITY CHARACTERISTICS: erucic acid is 0.03% of total fatty acids, oil content is 47.99% of whole dried seed, protein is 24.6% of dried oil free meal, medium glucosinolates (19.3 $\mu\text{mol/gm}$)

DISEASE RESISTANCE: resistant to Blackleg (*Leptosphaeria maculans* asexual stage: *Phoma lingam*) and resistant to White Rust (*Albugo candida*, races 7a & 2v)

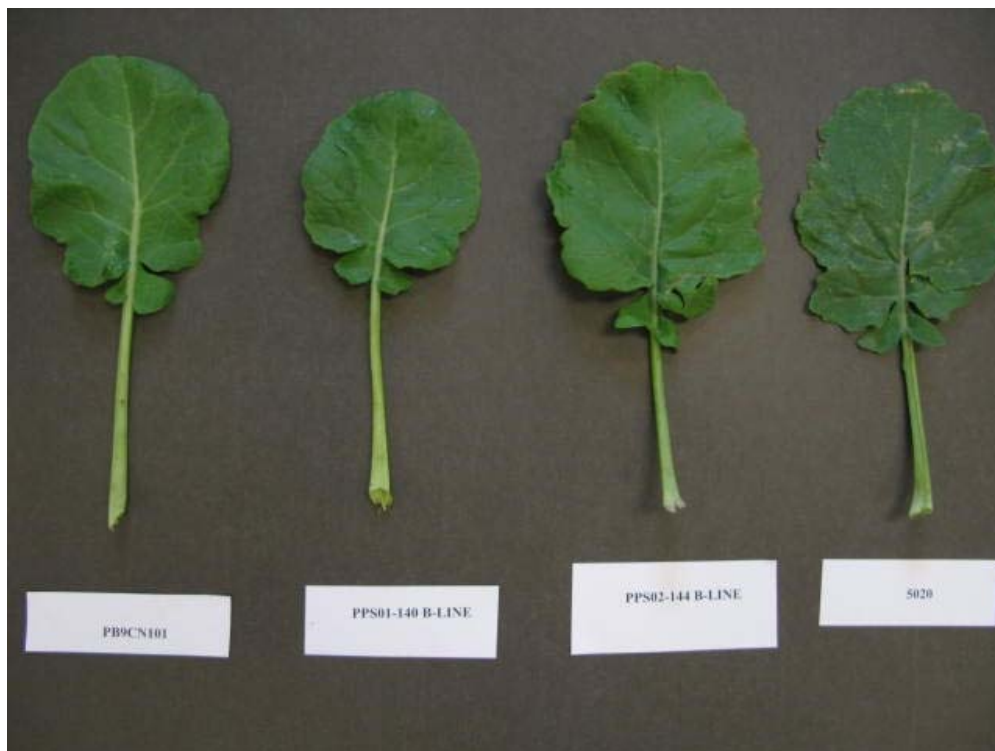
Origin and Breeding: 'PB9CN201' is a male fertile maintainer line of 'PA9CN101'. 'PB9CN201' is a doubled haploid line that was produced in Canada in 2003. It was selected in 2006 and 2007 on the basis of height, vigour, maturity, blackleg resistance, oil content, fatty acid profile and glucosinolate content.

Tests and Trials: Trials were conducted in Saskatoon, Saskatchewan during the summers of 2009 and 2010. In 2009, the trial was set up with 3 replicates arranged in a RCB design. In 2010, the trial setup was 3 replicates arranged in Lattice design. Each year the plots consisted of 3 rows with a row length of 6 metres and a row spacing of 50 cm.

Comparison table for 'PB9CN201'

	'PB9CN201'	'PPS02-144 B-Line'*	'PPS01-140 B-Line'*	'5020'*
<i>Days to flowering</i>				
mean (LSD=3.3)	46.0	38.9	42.4	39.2
<i>Flower petal length (mm)</i>				
mean (LSD=1.3)	14.3	17.3	14.8	17.0
std. deviation	0.9	2.1	0.7	0.8
<i>Silique length (mm)</i>				
mean (LSD=5.4)	66.0	62.5	58.3	61.9
std. deviation	6.0	5.5	3.5	4.3
<i>Beak length (mm)</i>				
mean (LSD=3.7)	9.6	14.9	7.6	13.8
std. deviation	1.5	1.8	1.3	1.8
<i>Plant height at maturity (cm)</i>				
mean (LSD=19)	138	109	132	120
std. deviation	8.3	6.5	7.6	8.5

*reference varieties



Canola: 'PB9CN201' (left) with reference varieties 'PPS01-140 B-Line' (centre left), 'PPS02-144 B-Line' (centre right) and '5020' (right)