SOYBEAN
(Glycine max)

Proposed denomination: **'S10-B7'**
Application number: 08-6188
Application date: 2008/02/22
Applicant: Syngenta Seeds Canada, Inc., Arva, Ontario
Breeder: Don McClure, Syngenta Seeds Canada, Inc., Arva, Ontario

Variety used for comparison: 'S08-80'

Summary: *'S10-B7' has smaller seeds than 'S08-80'. The pubescence on the middle third of the stem of 'S10-B7' is light tawny whereas it is tawny in 'S08-80'.*

Description:
HYPOCOTYL: medium anthocyanin colouration

PLANT: oilseed type, indeterminate growth type, erect growth habit, light tawny pubescence on middle third of stem

LEAF: medium green, pointed ovate lateral leaflet

FLOWER: purple

POD: tan colour
SEED: spherical rounded, medium size, dull lustre, yellow ground colour of testa, imperfect yellow hilum colour, yellow colour of hilum funicle, medium sized hilum, normal abscission layer

MATURITY: group I, 2750 heat unit rating

DISEASE RESISTANCE: resistant to phytophthora rot (*Phytophthora megasperma* f.sp. *glycinea*) races 1-3 & 6-9, susceptible to soybean cyst nematode (*Heterodera glycines*)

AGRONOMY: good resistance to shattering and lodging

QUALITY: 42.8 % protein, 19.3% oil

Origin and Breeding: 'S10-B7' (experimental designation XC1070, S183443 and 04DL183443) was developed from the cross 87463 / 57133 made in Arva, Ontario in 2001. Generations F1-F2 were grown in a winter nursery in Kekaha, Hawaii. The F3 was grown in Arva, Ontario in 2002. Generations F4-F5 were grown in Hawaii. The F6 generation was grown in Arva, Ontario in the summer of 2003 where single plants were selected that fall. The progeny of these plants were grown in a single replicate trial in 2004. One of these lines was identified as 04DL183443 and was selected based on superior agronomic attributes and retained for further testing. 04DL183443 was subsequently tested in multiple environments in Ontario and Chili until 2005-2006. 'S10-B7' carries the Rps 1c gene for protection from phytophthora root rot (*Phytophthora megasperma* f.sp. *glycinea*).

Tests and Trials: Tests and trials were conducted in Arva, Ontario during the years 2008-2009. Plots consisted of 2 rows with a row length of 4 m and row spacing of 75 cm. There were two replicates.

Soybean: 'S10-B7' (right) with reference variety 'S08-80' (left)

Proposed denomination: **'S23-T5'**
Application number: 08-6189
Application date: 2008/02/22
Applicant: Syngenta Seeds Canada, Inc., Arva, Ontario
Breeder: Don McClure, Syngenta Seeds Canada, Inc., Arva, Ontario

Variety used for comparison: 'S26-F9'

Summary: *The hypocotyl of 'S23-T5' has anthocyanin colouration present while 'S26-F9' does not. 'S23-T5' flowers earlier than 'S26-F9'. The flower of 'S23-T5' is purple while it is white in 'S26-F9'. 'S23-T5' has light tawney pubescence on the middle third of the stem while it is grey in 'S26-F9'. The pod colour of 'S23-T5' is tan while it is brown in 'S26-F9'. 'S23-T5' has a duller seed coat lustre than 'S26-F9'.*

Description:
HYPOCOTYL: very weak anthocyanin colouration

PLANT: oilseed type, indeterminate growth type, erect growth habit, light tawney pubescence on middle third of stem

LEAF: medium green, pointed ovate lateral leaflet

FLOWER: purple

POD: tan colour
SEED: spherical rounded, medium size, dull lustre, yellow ground colour of testa, imperfect yellow hilum colour, yellow colour of hilum funicle, medium sized hilum, normal abscission layer

MATURITY: group II, 3100 heat unit rating

DISEASE RESISTANCE: resistant to cyst nematode (*Heterodera glycines*) races 3 & 14

AGRONOMY: good resistance to shattering and lodging

QUALITY: 41.3 % protein, 20.5% oil

Origin and Breeding: 'S23-T5' was developed from the cross 74222 / 38154 made in Owatonna, Minnesota in the summer of 2000. Generations F1-F2 were grown in a winter nursery in Kekaha, Hawaii in the fall of 2000-2001. The F3 was grown in Owatonna, Minnesota in the summer of 2001. The F4-F5 generation were grown in a winter nursery in Kekaha, Hawaii in the fall of 2001-2002. The F6 generation was grown in Owatonna, Minnesota in the summer of 2002 where single plants were selected. The progeny of these plants were grown in a single replicate trial in Owatonna, Minnesota in the summer of 2003. One of these lines was identified as 03KL015303 and was selected based on superior agronomic attributes and retained for further testing. 03KL015303 was subsequently tested in multiple environments in Canada and the USA until 2006 and was known in the final testing stages as XC2370.

Tests and Trials: Tests and trials were conducted in Arva, Ontario during the years 2007-2009. Plots consisted of 2 rows with a row length of 4 m and row spacing of 75 cm. There were two replicates.

Comparison table for 'S23-T5'

	'S23-T5'	**'S26-F9'***
Days to flowering (planting to 50% of plants showing one or more flowers)		
mean	54	56
Seeds weight (grams per 100 seed)		
mean	17.2	19.8
Days to maturity		
mean	116	118

*reference variety

Soybean: 'S23-T5' (right) with reference variety 'S26-F9' (left)

Proposed denomination: **'S26-F9'**
Application number: 07-5742
Application date: 2007/02/20
Applicant: Syngenta Seeds Inc., Minneapolis, Minnesota, United States of America
Agent in Canada: Don McClure, Syngenta Seeds Canada, Inc., Arva, Ontario
Breeder: Don McClure, Syngenta Seeds Canada, Inc., Arva, Ontario

Variety used for comparison: 'S25-D3'

Summary: *'S26-F9' has no anthocyanin colouration of the hypocotyl while 'S25-D3' does. The leaf of 'S26-F9' is a lighter green than 'S25-D3'. 'S26-F9' has a white flower colour while it is purple in 'S25-D3'. 'S26-F9' flowers earlier than 'S25-D3'. The pod colour of 'S26-F9' is brown while it is tan in 'S25-D3'. 'S26-F9' has duller and smaller sized seed than 'S25-D3'. 'S26-F9' is resistant to cyst nematode races 3 & 14 while 'S25-D3' is susceptible.*

Description:
HYPOCOTYL: no anthocyanin colouration

PLANT: oilseed type, indeterminate growth type, erect growth habit, grey pubescence on middle third of stem

LEAF: medium green, pointed ovate lateral leaflet

FLOWER: white

POD: brown colour
SEED: spherical rounded, medium size, shiny lustre, yellow ground colour of testa, yellow hilum colour, yellow colour of hilum funicle, medium sized hilum, normal abscission layer

MATURITY: group II, 3150 heat unit rating

DISEASE RESISTANCE: resistant to cyst nematode (*Heterodera glycines*) races 3 & 14

AGRONOMY: good resistance to shattering and lodging

QUALITY: 41.3 % protein, 21.7% oil

Origin and Breeding: 'S26-F9' was developed from the cross 29988 / 37635 made in Arva, Ontario in the summer of 2001. Generations F1-F2 were grown in a winter nursery in Kekaha, Hawaii in the fall of 2001-2002. The F3 was grown in Arva, Ontario in the summer of 2002. The F4 generation were grown in a winter nursery in 2002-2003. The F5 generation was grown in Arva, Ontario in the summer of 2003 where single plants were selected that fall. The progeny of these plants were grown in a single replicate trial in Arva, Ontario in the summer of 2004. One of these lines was identified as 04DL186179 and was selected based on superior agronomic traits and seed with yellow hila and retained for further testing. 04DL186179 was subsequently tested in multiple environments in Ontario and the USA until 2005-2006.

Tests and Trials: Tests and trials were conducted in Arva, Ontario during the years 2007-2009. Plots consisted of 2 rows with a row length of 4 m and row spacing of 75 cm. There were two replicates.

Comparison table for 'S26-F9'

	'S26-F9'	**'S25-D3'***
Days to flowering (planting to 50% of plants showing one or more flowers)		
mean	56	59
Seeds weight (grams per 100 seed)		
mean	19.8	21.3
Days to maturity		
mean	118	119

*reference variety

Soybean: ‘S26-F9’ (left) with reference variety ‘S25-D3’ (right)