



APPLICATIONS UNDER EXAMINATION

SOYBEAN

SOYBEAN (*Glycine max*)

Proposed denomination: 'Ajico'
Application number: 16-9059
Application date: 2016/12/22
Applicant: La Coop fédérée, Saint-Hyacinthe, Quebec
Breeder: Jérôme Auclair, La Coop fédérée, Saint-Hyacinthe, Quebec

Varieties used for comparison: 'Dares', 'Etna' and 'OAC Wallace'

Summary: *When 50% of the pods are ripe, the plants of 'Ajico' are shorter than those of 'Dares'. 'Ajico' has a rounded ovate lateral leaflet whereas 'Dares' and 'OAC Wallace' have a pointed ovate lateral leaflet. 'Ajico' has medium sized lateral leaflet whereas 'Etna' and 'OAC Wallace' have small lateral leaflet. When 95% of the pods are ripe, the intensity of the brown colour on the pod is light for 'Ajico' whereas it is of medium intensity for 'Dares' and medium to dark for 'Etna'. The seed of 'Ajico' is large whereas the seed of 'OAC Wallace' is medium sized. The colour of the hilum of 'Ajico' is imperfect yellow whereas it is dark brown in 'OAC Wallace'. The hilum is lacking the abscission layer on 'Ajico' whereas 'Etna' retains the abscission layer on the hilum. 'Ajico' matures later than 'Etna'.*

Description:

HYPOCOTYL: strong intensity of anthocyanin colouration

PLANT: oilseed type, indeterminate growth type, semi-erect to horizontal growth habit, begins flowering mid-season and matures medium-late to late in season

STEM: tawny pubescence on middle third

LEAF: dark green, medium blistering

LATERAL LEAFLET: rounded ovate, medium size

FLOWER: violet

POD: light brown

SEED: large, spherical flattened shape, yellow ground colour of testa

HILUM: imperfect yellow

FUNICLE: same colour as the testa

Origin and Breeding: 'Ajico' (experimental designations CFS13.5.01 and C4M15027) is the result of a cross between propriety selections conducted in 2005 by La Coop fédérée, Saint-Hyacinthe, Quebec, Canada. The modified single seed descent method was used to develop the variety. From 2005 to 2007, F1-F4 generations were grown in Santa Isabel, Puerto Rico, and advanced by modified single-seed descent. In 2007, filial generation F5, grown in Saint-Hyacinthe, was selected based on visual assessment of yield and seed size. In 2008, progeny rows from 2007 selection were evaluated and the line that became 'Ajico' was selected based on maturity and on a visual assessment of lodging resistance and yield potential. From 2009 to 2018, 'Ajico' was tested in replicated private trials in multiple locations. It was also tested as CFS13.5.01 or 'Ajico' in the Réseau Grandes Cultures du Québec and Ontario Oil and Protein Seed Crop Committee trials from 2013 to 2018.

Tests and Trials: The comparative trials for 'Ajico' were conducted at the crop production research farm of La Coop fédérée in Saint-Hyacinthe, Quebec. The trials were planted in a RCB design with 3 replicates per variety during the 2017 growing season and 4 replicates per variety during the 2018 growing season. Each 7.5 square metre plot consisted of 4 rows, each 5 metres long with a row spacing of 0.38 metres. The seeding density was such that it resulted in a total of over 30 plants per variety per square metre. For each variety, the plant height was based on 30 measurements. Mean differences were significant at the 5% probability level based on LSD values.

Comparison table for 'Ajico'

	'Ajico'	'Dares'*	'Etna'*	'OAC Wallace'*
<i>Plant height (cm)</i>				
mean (2017) (LSD=2.60)	88.7	90.7	92.9	80.5
std. deviation (2017)	2.5	3.5	2.1	2.5
mean (2018) (LSD=2.59)	76.4	82.6	74.7	83.5
std. deviation (2018)	5.4	6.0	5.6	6.3
<i>Days to maturity</i>				
mean (2017)	135	132	130	131
mean (2018)	124	127	121	123

*reference varieties



Soybean: 'Ajico' (left) with reference varieties 'Dares' (centre left), 'Etna' (centre right) and 'OAC Wallace' (right)



Soybean: 'Ajico' (top left) with reference varieties 'Dares' (bottom left), 'Etna' (top right) and 'OAC Wallace' (bottom right)



Soybean: 'Ajico' (top) with reference varieties 'Dares' (top centre), 'Etna' (bottom centre) and 'OAC Wallace' (bottom)

Proposed denomination: 'Nocoma R2'
Application number: 17-9178
Application date: 2017/04/19
Applicant: La Coop fédérée, Saint-Hyacinthe, Quebec
Breeder: Jérôme Auclair, La Coop fédérée, Saint-Hyacinthe, Quebec

Varieties used for comparison: 'Akras R2', 'Lono R2' and 'Samps R2'

Summary: *The hypocotyl of 'Nocoma R2' has a medium to strong intensity of anthocyanin colouration whereas that of 'Samps R2' has no anthocyanin colouration. The pubescence on the middle third of the stem of 'Nocoma R2' is light tawny whereas it is tawny on 'Lono R2' and grey on 'Samps R2'. When 50 % of the pods are ripe, the plants of 'Nocoma R2' are shorter than the plants of 'Lono R2' and taller than the plants of 'Samps R2'. When 95% of the pods are ripe, the intensity of the brown colour on the pod is light to medium for 'Nocoma R2', while it is dark for 'Lono R2'. The seed of 'Nocoma R2' is medium sized, whereas the seed of 'Samps R2' is large. The colour of the hilum of 'Nocoma R2' is imperfect black whereas it is yellow on 'Lono R2'. 'Nocoma R2' matures earlier than the reference varieties.*

Description:

HYPOCOTYL: medium to strong intensity of anthocyanin colouration

PLANT: oilseed type, indeterminate growth type, semi-erect growth habit, begins flowering and matures very early to early in season

STEM: light tawny pubescence on middle third

LEAF: medium to dark green, medium to strong blistering

LATERAL LEAFLET: rounded to pointed ovate, small

FLOWER: violet

POD: light to medium brown

SEED: medium size, spherical flattened shape, yellow ground colour of testa

HILUM: imperfect black

FUNICLE: same colour as the testa

Origin and Breeding: 'Nocoma R2' (experimental designations CFS17.1.03 and C4M15028 R2) is the result of the cross between propriety selections conducted in 2011 by La Coop fédérée, Saint-Hyacinthe, Quebec, Canada. A modified single seed descent method was used to develop the variety. From 2011 to 2013, F1-F4 generations were grown in Santa Isabel, Puerto Rico, and advanced by modified single-seed descent. In 2013, filial generation F5, grown in Saint-Hyacinthe, was selected based on maturity and visual assessment of yield. In 2014, progeny rows from 2013 selection were evaluated in Saint-Hyacinthe, Quebec. The line that became 'Nocoma R2' was selected based on maturity and on visual assessment of lodging resistance and yield potential. From 2014 to 2018, 'Nocoma R2' was tested in replicated private trials in multiple locations. It was also tested as CFS17.1.03 or 'Nocoma R2' in public trials in the Maritime provinces, Quebec, Ontario, Manitoba, Saskatchewan and Alberta from 2017 to 2018.

Tests and Trials: The comparative trials for 'Nocoma R2' were conducted at the crop production research farm of La Coop fédérée in Saint-Hyacinthe, Quebec. The trials were planted in a RCB design with 3 replicates per variety during the 2017 growing season and 4 replicates per variety during the 2018 growing season. Each 7.5 square metre plot consisted of 4 rows, each 5 metres long with a row spacing of 0.38 metre. The seeding density was such that it resulted in a total of over 43 plants per variety per square metre. For each variety, the plant height was based on 30 measurements. Mean differences were significant at the 5% probability level based on LSD values.

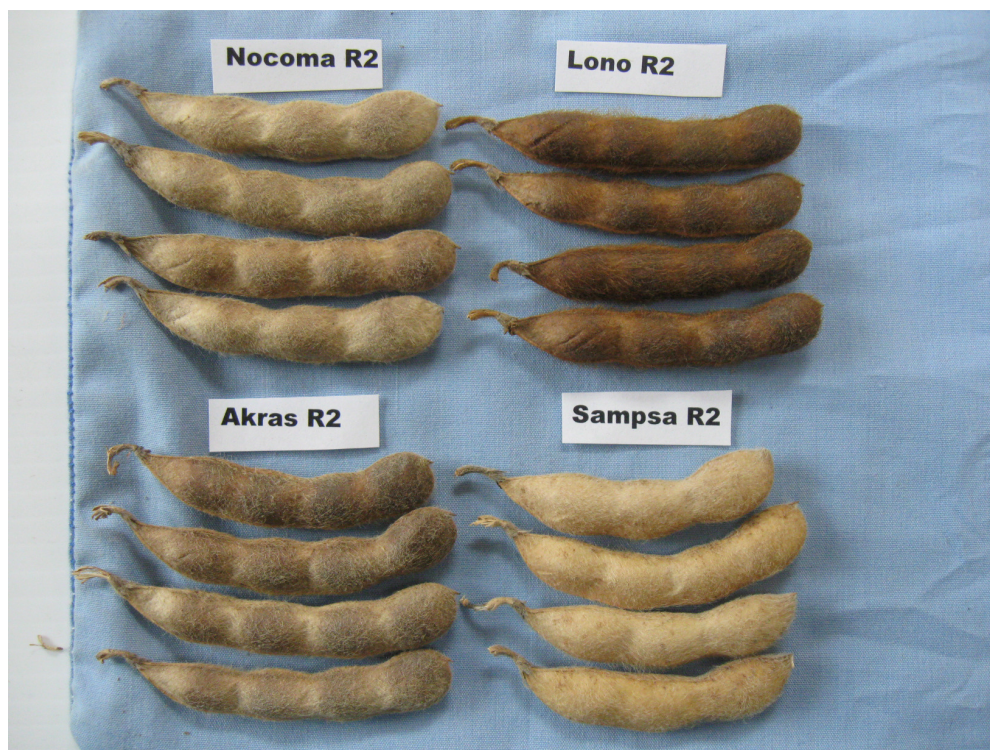
Comparison table for 'Nocoma R2'

	'Nocoma R2'	'Akra R2'*	'Lono R2'*	'Samps R2'*
<i>Plant height (cm)</i>				
mean (2017) (LSD=2.17)	74.7	71.3	78.4	70.6
std. deviation (2017)	2.81	2.89	3.11	2.57
mean (2018) (LSD=2.07)	67.9	68.1	71.2	65.7
std. deviation (2018)	3.93	2.77	3.62	2.88
<i>Days to maturity</i>				
mean (2017)	114	120	118	125
mean (2018)	94	99	98	101

*reference varieties



Soybean: 'Nocoma R2' (right) with reference varieties 'Akra R2' (centre left), 'Lono R2' (left) and 'Samps R2' (centre right)



Soybean: 'Nocoma R2' (top left) with reference varieties 'Akra R2' (bottom left), 'Lono R2' (top right) and 'Samps R2' (bottom right)



Soybean: 'Nocoma R2' (top) with reference varieties 'Akras' (top centre), 'Lono R2' (bottom centre) and 'Sampsa R2' (bottom)

Proposed denomination: 'P0007A43R'
Application number: 17-9243
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krashenninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America

Varieties used for comparison: 'P002T04R' and 'P001T34R'

Summary: *The hypocotyl of 'P0007A43R' has anthocyanin colouration whereas that of 'P001T34R' has no anthocyanin colouration. The flower colour of 'P0007A43R' is violet whereas it is white for 'P001T34R'. When 95% of pods are ripe, the plants of 'P0007A43R' are shorter than the plants of 'P002T04R'. The colour of the hilum on 'P0007A43R' is medium brown whereas it is light brown on 'P002T04R'.*

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures very early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: medium brown

SEED: yellow ground colour of testa

HILUM: medium brown

Origin and Breeding: 'P0007A43R' is the result of the cross between propriety selections conducted in 2010 in Salinas, Puerto Rico. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown in Salinas, Puerto Rico in 2011. In 2012, single F3 plant selections were made near Moorhead, Minnesota, USA followed by a progeny row yield test near Viluco, Chile in 2012. In 2013, preliminary and regional yield tests were conducted near Moorhead, Minnesota. Single plant purification, with individual plant rows harvested and advanced, took place in 2013 in Viluco, Chile. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to *Phytophthora* rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P0007A43R' conducted in Dauphin, Manitoba during the 2017 growing season, was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 125 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700258, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

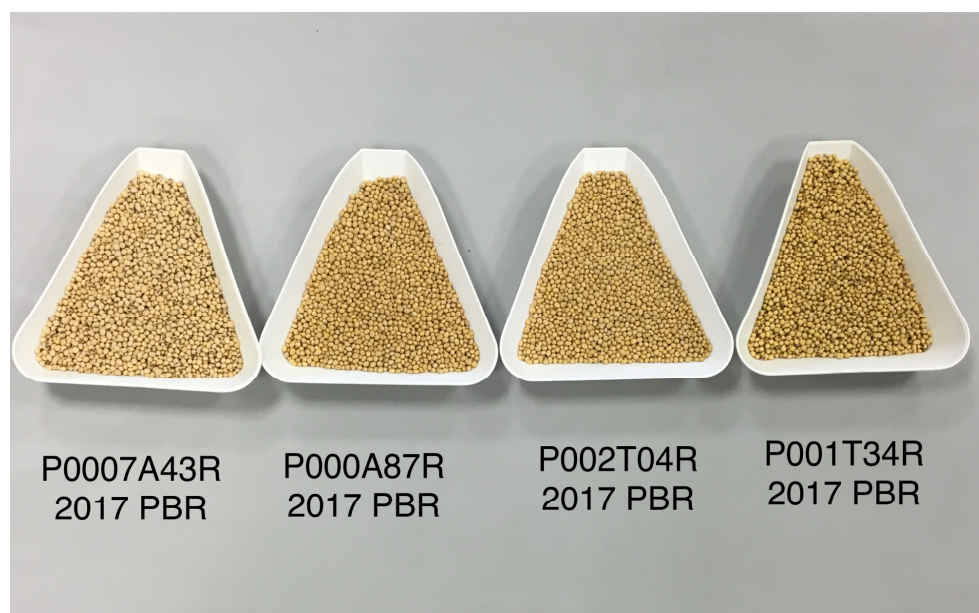
Comparison table for 'P0007A43R'

	'P0007A43R'	'P002T04R'*	'P001T34R'*
<i>Plant height (cm)</i>			
mean (LSD=5.4)	87.9	101.7	86.3
std. deviation	1.2	4.5	0.5

*reference varieties



Soybean: 'P0007A43R' (left) with reference varieties 'P002T04R' (centre right) and 'P001T34R' (right)



Soybean: 'P0007A43R' (left) with reference varieties 'P002T04R' (centre right) and 'P001T34R' (right)

Proposed denomination: 'P000A87R'
Application number: 17-9244
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krashenninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America

Varieties used for comparison: 'P002T04R' and 'P001T34R'

Summary: *The hypocotyl of 'P000A87R' has anthocyanin colouration whereas that of 'P001T34R' has no anthocyanin colouration. The flower colour of 'P000A87R' is violet whereas it is white for 'P001T34R'. When 95% of the pods are ripe, the plants of 'P000A87R' are taller than the plants of 'P001T34R'. The colour of the hilum on 'P000A87R' is light brown whereas it is medium brown on 'P001T34R'. The seed of 'P000A87R' has an elongated flattened shape whereas it is elongated for 'P002T04R' and spherical for 'P001T34R'.*

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures very early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: medium brown

SEED: elongated flattened shape, yellow ground colour of testa

HILUM: light brown

Origin and Breeding: 'P000A87R' is the result of the cross between propriety selections conducted in 2010 in Salinas, Puerto Rico. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown Salinas, Puerto Rico in 2011. In 2012, single F3 plant selections were made near Moorhead, Minnesota, USA followed by a progeny row yield test near Viluco, Chile in 2012. In 2013, regional yield tests were done near Carman, Manitoba, Canada. Single plant purification took place in 2013 in Viluco, Chile with individual plant rows harvested and advanced. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to Phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P000A87R' conducted in Dauphin, Manitoba during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 125 to 150 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700257, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

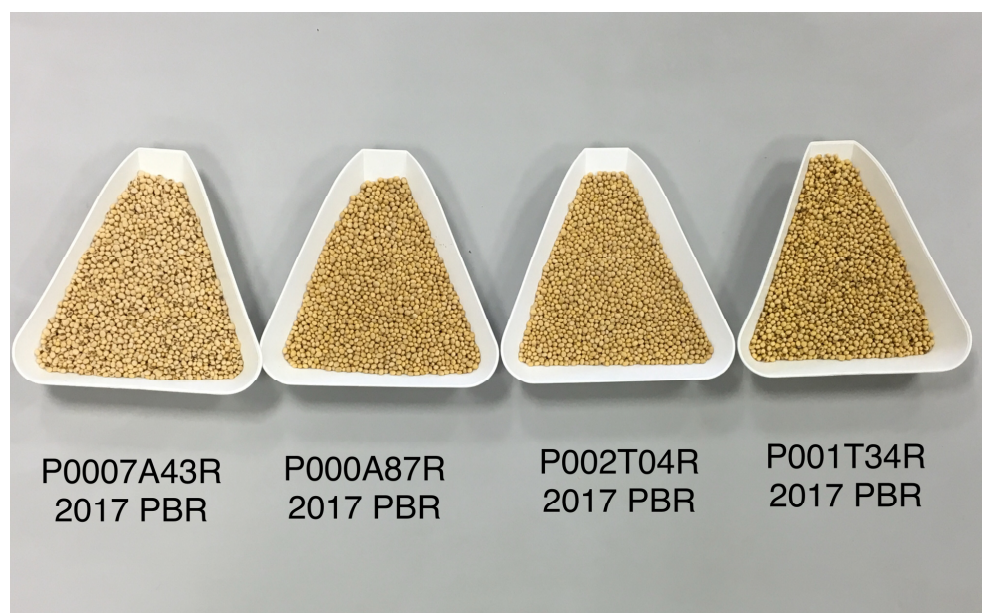
Comparison table for 'P000A87R'

	'P000A87R'	'P002T04R'*	'P001T34R'*
<i>Plant height (cm)</i>			
mean (LSD=5.8)	97.0	101.7	86.3
std. deviation	2.2	4.5	0.5

*reference varieties



Soybean: 'P000A87R' (centre left) with reference varieties 'P002T04R' (centre right) and 'P001T34R' (right)



Soybean: 'P000A87R' (centre left) with reference varieties 'P002T04R' (centre right) and 'P001T34R' (right)

Proposed denomination: 'P002A63R'
Application number: 17-9245
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krashenninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America

Varieties used for comparison: 'P002T04R' and 'P006T46R'

Summary: When 95% of the pods are ripe, the plants of 'P002A63R' are taller than the plants of 'P002T04R'. The pod colour for 'P002A63R' is light brown whereas it is medium brown for the reference varieties. The colour of the hilum on 'P002A63R' is light brown whereas it is medium brown on 'P006T46R'. 'P002A63R' matures later than 'P002T04R'.

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures very early to early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: light brown

SEED: yellow ground colour of testa

HILUM: light brown

Origin and Breeding: 'P002A63R' is the result of the cross between propriety selections conducted in 2008 in Viluco, Chile. The modified single seed descent method and pedigree method of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 and F3 generations were grown near Salinas, Puerto Rico and Moorhead, Minnesota, USA, respectively, in 2009 and 2010. In 2010, single F4 plant selections were made near Viluco, Chile followed by a progeny row yield test near Moorhead, Minnesota in 2011. In 2012 and 2013, regional yield tests were done in Carman, Manitoba, Canada. Single plant purification took place in 2013 in Moorhead, Minnesota with individual plant rows harvested and advanced near Viluco, Chile. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to Phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*).

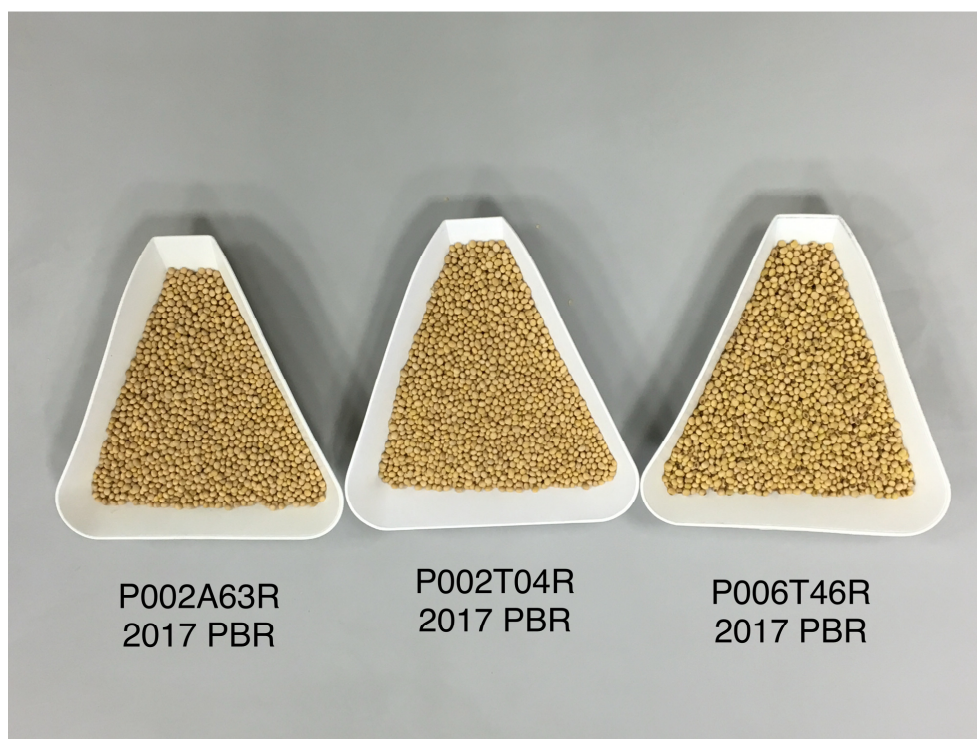
Tests and Trials: The comparative trial for 'P002A63R' conducted in Dauphin, Manitoba during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 125 to 150 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700255, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

Comparison table for 'P002A63R'

	'P002A63R'	'P002T04R'*	'P006T46R'*
<i>Plant height (cm)</i>			
mean (LSD=4.8)	106.1	100.9	108.0
std. deviation	2.5	1.4	3.1
<i>Days to maturity</i>			
mean	114	111	114
*reference varieties			



Soybean: 'P002A63R' (left) with reference varieties 'P002T04R' (centre) and 'P006T46R' (right)



Soybean: 'P002A63R' (left) with reference varieties 'P002T04R' (centre) and 'P006T46R' (right)

Proposed denomination: 'P007A90R'
Application number: 17-9246
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krasheninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America

Varieties used for comparison: 'P002T04R' and 'P006T04R'

Summary: *The colour of the hilum on 'P007A90R' is black whereas it is light brown on 'P002T04R' and medium brown on 'P006T46R'. The 100 seed weight of 'P007A90R' is greater than that of 'P002T04R'.*

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures very early to early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: medium brown

SEED: yellow ground colour of testa

HILUM: black

Origin and Breeding: 'P007A90R' is the result of the cross between propriety selections conducted in 2009 in Salinas, Puerto Rico. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The

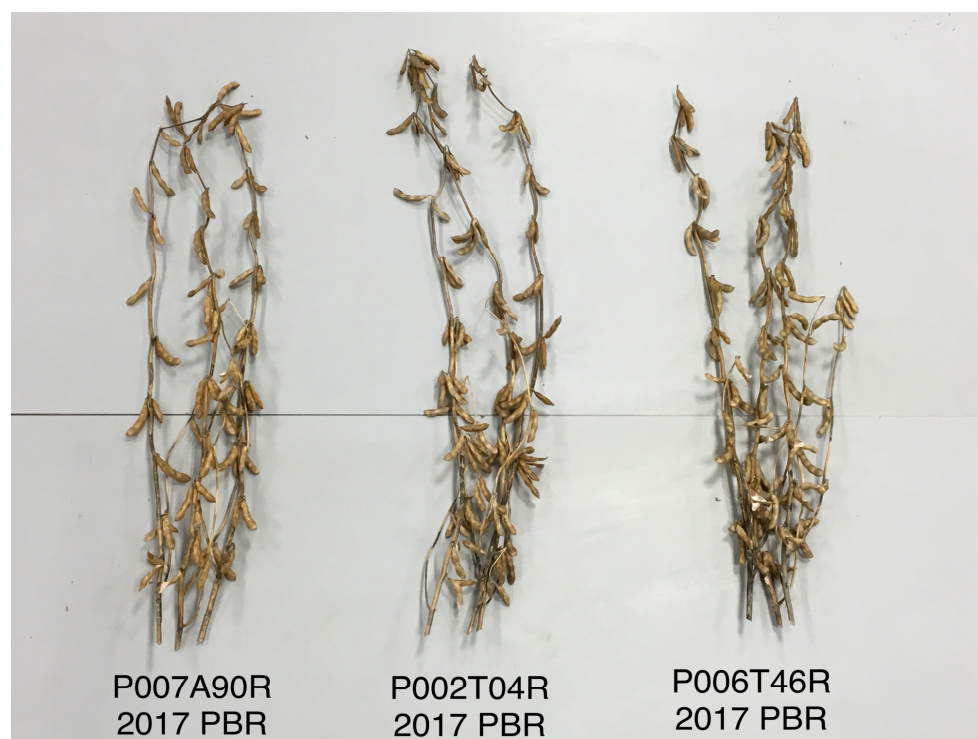
F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown near Salinas, Puerto Rico in 2010. In 2011, single F3 plant selections were made near Moorhead, Minnesota, USA followed by a progeny row yield test near Viluco, Chile in 2011. In 2012 and 2013, regional yield tests were done in Carman, Manitoba, Canada. Single plant purification took place in 2013 in Moorhead, Minnesota with individual plant rows harvested and advanced near Viluco, Chile. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to *Phytophthora* rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P007A90R' conducted in Winkler, Manitoba during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 125 to 150 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700256, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

Comparison table for 'P007A90R'

	'P007A90R'	'P002T04R'*	'P006T04R'*
<i>Seed weight (grams per 100 seeds)</i>			
mean (LSD= 2.7)	16.3	13.6	17.1
std. deviation	1.3	1.7	0.8

*reference varieties



Soybean: 'P007A90R' (left) with reference varieties 'P002T04R' (centre) and 'P006T46R' (right)



Soybean: 'P007A90R' (left) with reference varieties 'P002T04R' (centre) and 'P006T46R' (right)

Proposed denomination: 'P04A60R'
Application number: 17-9247
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krashenninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America
 John Van Herk, Pioneer Hi-Bred Production LP, Woodstock, Ontario
 Joel Hemingway, Pioneer Hi-Bred Production LP, Woodstock, Ontario

Varieties used for comparison: 'P01T23R' and 'P02T54R'

Summary: *The pubescence on the middle third of the stem of 'P04A60R' is tawny whereas it is light tawny in 'P02T54R'. When 95% of the pods are ripe, the plants of 'P04A60R' are taller than the plants of 'P01T23R'. 'P04A60R' matures later than the reference varieties.*

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: medium brown

SEED: yellow ground colour of testa

HILUM: medium brown

Origin and Breeding: 'P04A60R' is the result of the cross between propriety selections conducted in 2010 in Salinas, Puerto Rico. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown near Moorhead, Minnesota, USA in 2011. In 2011, single F3 plant selections were made near Viluco, Chile followed by a progeny row yield test near Chatham, Ontario, Canada in 2012. In 2013, regional yield tests were done near Moorhead, Minnesota. Single plant purification took place in 2013, in Moorhead, Minnesota with individual plant rows harvested and advanced near Viluco, Chile. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to *Phytophthora* rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P04A60R' conducted in Alma, Ontario during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 280 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700253, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

Comparison table for 'P04A60R'

	'P04A60R'	'P01T23R'*	'P02T54R'*
<i>Plant height (cm)</i>			
mean (LSD=6.3)	67.7	61.3	73.3
std. deviation	3.1	2.2	3.6
<i>Days to maturity</i>			
mean	121	116	119

*reference varieties



Soybean: 'P04A60R' (centre) with reference varieties 'P01T23R' (left) and 'P02T54R' (right)



Soybean: 'P04A60R' (centre) with reference varieties 'P01T23R' (left) and 'P02T54R' (right)

Proposed denomination: 'P06A13R'
Application number: 17-9248
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Nadia Krashenninnik, Pioneer Hi-Bred International, Inc., Moorhead, Minnesota, United States of America

Varieties used for comparison: 'P08T96R' and 'Mundo R2'

Summary: *When 95% of the pods are ripe, the plants of 'P06A13R' are shorter than the plants of 'P08T96R'. The colour of the hilum on 'P06A13R' is light brown whereas it is medium brown on 'Mundo R2'. 'P06A13R' matures earlier than 'P08T96R'.*

Description:

PLANT: oilseed type, indeterminate growth type, grey pubescence on middle third of main stem, begins flowering and matures early

HYPOCOTYL: anthocyanin colouration present

LEAF: pointed ovate lateral leaflet

FLOWER: violet

POD: medium brown

SEED: yellow ground colour of testa

HILUM: light brown

Origin and Breeding: 'P06A13R' is the result of the cross between propriety selections conducted in 2009 in Salinas, Puerto Rico. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown near Salinas, Puerto Rico in 2010. In 2010, single F3 plant selections were made near Viluco Chile. In 2012, regional yield tests were done in Moorhead, Minnesota, USA. Single plant purification took place in 2012 in Moorhead, Minnesota with individual plant rows

harvested and advanced near Viluco, Chile. Wide area testing continued from 2013 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to *Phytophthora* rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P06A13R' conducted in Alma, Ontario during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 280 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700254, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

Comparison table for 'P06A13R'

	'P06A13R'	'P08T96R'*	'Mundo R2'*
<i>Plant height (cm)</i>			
mean (LSD=5.5)	57.5	66.2	61.0
std. deviation	3.0	0.8	3.7
<i>Days to maturity</i>			
mean	123	125	122
*reference varieties			



Soybean: 'P06A13R' (centre) with reference varieties 'P08T96R' (left) and 'Mundo R2' (right)



Soybean: 'P06A13R' (centre) with reference varieties 'P08T96R' (left) and 'Mundo R2' (right)

Proposed denomination: 'P25A65R'
Application number: 17-9249
Application date: 2017/06/16
Applicant: Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America
Agent in Canada: Pioneer Hi-Bred Production Co., Lethbridge County, Alberta
Breeder: Jordan Spear, Pioneer Hi-Bred International, Inc., Algona, Iowa, United States of America

Varieties used for comparison: '92Y55' and 'P25T51R'

Summary: When 95% of the pods are ripe, the plants of 'P25A65R' are shorter than the plants of '92Y55'. The pod colour for 'P25A65R' is medium brown whereas it is light brown for 'P25T51R'. The colour of the hilum on 'P25A65R' is medium brown whereas it is black on '92Y55'. 'P25A65R' matures earlier than '92Y55'.

Description:

PLANT: oilseed type, indeterminate growth type, tawny pubescence on middle third of main stem, begins flowering and matures mid-season

HYPOCOTYL: anthocyanin colouration absent

LEAF: pointed ovate lateral leaflet

FLOWER: white

POD: medium brown

SEED: yellow ground colour of testa

HILUM: medium brown

Origin and Breeding: 'P25A65R' is the result of the cross between propriety selections conducted in 2011 in North Platte, Nebraska, USA. The modified single seed descent and pedigree methods of plant breeding were used to develop the variety. The F1 generation, grown near Salinas, Puerto Rico, was harvested in bulk and the F2 generation was grown near Salinas, Puerto Rico in 2012. In 2012, single F3 plant selections were made near Cedar Falls, Iowa, USA followed by a progeny row yield test near Viluco, Chile in 2012. In 2013, regional yield tests were done in Cedar Falls, Iowa. Single plant purification

took place in 2013 in Viluco, Chile with individual plant rows harvested and advanced. Wide area testing continued from 2014 to 2016 in the USA and Canada. Selection criteria included yield, maturity and resistance to glyphosate herbicides and to *Phytophthora* rot (*Phytophthora megasperma* f. sp. *glycinea*).

Tests and Trials: The comparative trial for 'P25A65R' conducted in Chatham, Ontario during the 2017 growing season was planted in a RCB design and consisted of 3 replicates for each variety. Plots consisted of 2 rows, each 4.5 metres in length with a row spacing of 76 cm. Each plot was sown with approximately 280 seeds per replication. For each variety, the plant height was based on 30 measurements whereas the seed weight was based on 3 measurements. Mean differences were significant at the 5% probability level based on LSD values. Results were supported by the official technical examination report 201700259, purchased from the Plant Variety Protection Office in Beltsville, Maryland, USA.

Comparison table for 'P25A65R'

	'P25A65R'	'92Y55'*	'P25T51R'*
<i>Plant height (cm)</i>			
mean (LSD=3.7)	94.8	101.2	97.3
std. deviation	1.8	1.5	2.3
<i>Days to maturity</i>			
mean	123	125	122

*reference varieties



Soybean: 'P25A65R' (centre) with reference varieties '92Y55' (left) and 'P25T51R' (right)



Soybean: 'P25A65R' (centre) with reference varieties '92Y55' (left) and 'P25T51R' (right)
