WHEAT
(Triticum aestivum)

Proposed denomination: **'Accipiter'**
Application number: 08-6411
Application date: 2008/07/29
Applicant: University of Saskatchewan, Saskatoon, Saskatchewan
Agent in Canada: SeCan Association, Kanata, Ontario
Breeder: David Brian Fowler, University of Saskatchewan, Saskatoon, Saskatchewan

Variety used for comparison: 'CDC Raptor'

Summary: *'Accipiter' has medium intensity of anthocyanin colouration of the flag leaf auricle while it is weak in 'CDC Raptor'. The shoulder width of the lower glume of 'Accipiter' is very narrow to narrow while it is narrow to medium in 'CDC Raptor'. 'Accipiter' has a narrow lower glume with no pubescence while it is medium width and pubescent in 'CDC Raptor'. The beak of the lower glume in 'Accipiter' is medium length and moderately curved while it is short and slightly curved in 'CDC Raptor'. 'Accipiter' has medium length brush hairs on the kernel while it is short in 'CDC Raptor'. The powdery mildew resistance in 'Accipiter' is moderately resistant to moderately susceptible while it is moderately susceptible to susceptible in 'CDC Raptor'.*

Description:
PLANT: winter type, common wheat, prostrate growth habit at the 5-9 tiller stage, medium glaucosity of the culm at heading, low frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): weak to medium intensity of anthocyanin colouration of the coleoptile, pubescent sheaths and glabrous blades of the lower leaves

FLAG LEAF: medium intensity of anthocyanin colouration of the auricles, weak to medium glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration
SPIKE: very weak to weak glaucosity at heading, tapering profile, medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, erect to incline attitude, curved neck of the culm, very sparse to sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: very narrow to narrow shoulder, sloping to slightly sloping shoulder, medium length, narrow, glabrous, medium length moderately curved beak

KERNEL: hard red type, medium red colour, small to medium size, medium length, narrow to medium width, broad elliptical to elliptical, angular cheek shape, medium length brush hairs, small sized oval germ, medium crease width, shallow crease depth

AGRONOMY: good resistance to shattering, fair to good drought tolerance, good winter survival, fair to good resistance to pre-harvest sprouting

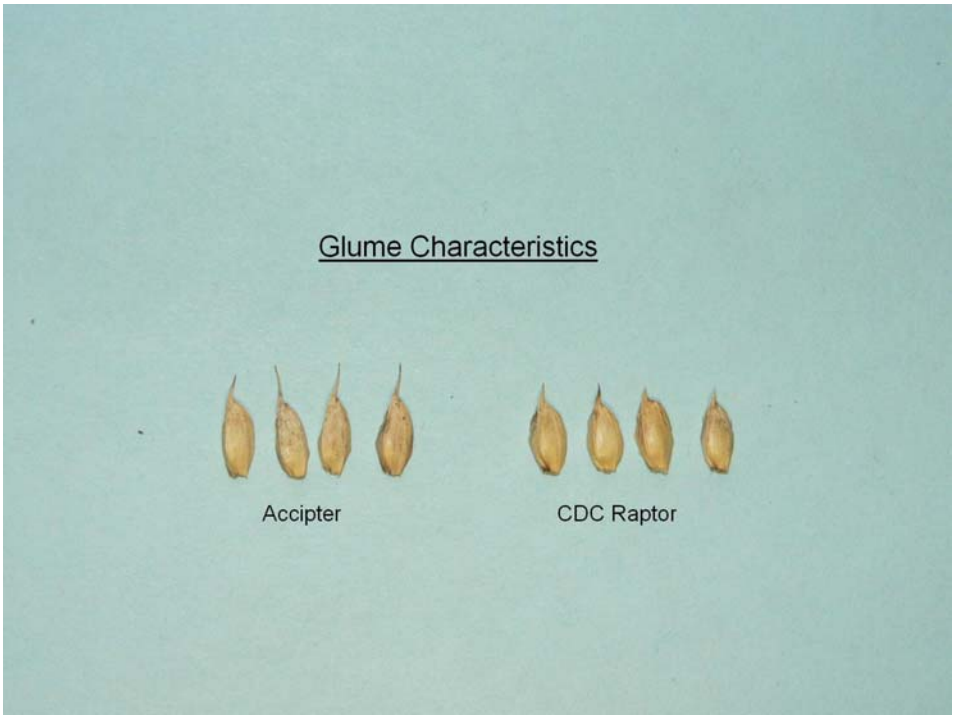
DISEASE REACTION: moderately resistant to moderately susceptible to powdery mildew (*Erysiphe graminis, f. sp. tritici*) and moderately susceptible to Septoria tritici blotch (*Septoria tritici*)

Origin and Breeding: 'Accipiter' (experimental designation DH00-18-196) is a winter wheat variety developed by the Department of Plant Sciences, University of Saskatchewan, Saskatoon, Saskatchewan. 'Accipiter' originates from the cross made in 1999 of CDC Raptor / CDC Falcon using the doubled haploid method. Selection was made in field trials during 2002 to 2004 for agronomic traits and disease resistance.

Tests and Trials: Test and trials were conducted in 2009 and 2010 at C&M Seeds in Palmerston, Ontario. Plots consisted of 8 rows with a row length of 4 meters and a row spacing of 15 cm. Planting density was 400 seeds per meter squared. There were 4 replicates arranged in an RCB design.

Wheat: 'Accipiter' (left) with reference variety 'CDC Raptor' (right)

Wheat: 'Accipiter' (left) with reference variety 'CDC Raptor' (right)



Wheat: 'Accipiter' (left) with reference variety 'CDC Raptor' (right)

Proposed denomination: **'BW410'**
Application number: 11-7170
Application date: 2011/02/03
Applicant: Agriculture & Agri-Food Canada, Winnipeg, Manitoba
Agent in Canada: Agriculture & Agri-Food Canada, Lacombe, Alberta
Breeder: Stephen Fox, Agriculture & Agri-Food Canada, Winnipeg, Manitoba

Varieties used for comparison: 'Vesper', 'Superb', 'Unity' and 'Waskada'

Summary: *The intensity of anthocyanin colouration of the coleoptile of 'BW410' is absent or very weak while it is medium in 'Superb' and 'Waskada' but strong in 'Unity'. 'BW410' has absent or very weak intensity of anthocyanin colouration of the auricles of the flag leaf while it is weak to medium in 'Vesper', Superb' and 'Waskada'. At heading, the spike of 'BW410' has medium to strong glaucosity while it is weak to medium in 'Unity'. The spike of 'BW410' is shorter than 'Vesper'. 'BW410' has a lower glume shoulder shape that is slightly sloping to straight while it is straight to elevated in 'Unity'. The lower glume of 'BW410' is pubescent while it is glabrous for 'Vesper', 'Superb' and 'Waskada'. 'BW410' has a short beak of the lower glume while it is medium length for 'Superb'. 'BW410' matures later than 'Unity'. At maturity, the straw of 'BW410' has no anthocyanin colouration while in 'Unity' it does. 'BW410' has better pre-harvest sprouting resistance than 'Vesper'. 'BW410' is susceptible to wheat midge while 'Vesper' and 'Unity' are resistant and 'Waskada' is moderately resistant.*

Description:
PLANT: spring type, common wheat, semi-erect growth habit at the 5-9 tiller stage, weak to medium glaucosity of the culm at heading, medium to high frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, glabrous sheaths and blades of the lower leaves

FLAG LEAF: absent or very weak intensity of anthocyanin colouration of the auricles, medium glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration

SPIKE: medium to strong glaucosity at heading, parallel to semi-clavate profile, medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, erect attitude, very sparse to sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow to medium width shoulder, slightly sloping to straight shoulder shape, medium length, narrow to medium width, pubescent, short slightly curved beak, very sparse to sparse extent of internal hairs
LOWEST LEMMA: slightly curved beak

KERNEL: hard red type, medium red colour, small to medium size, medium length, medium width, ovate, rounded cheek shape, medium to long brush hairs, medium to large sized round to oval germ, narrow crease width, medium crease depth

AGRONOMY: good resistance to shattering, good resistance to pre-harvest sprouting

QUALITY: good bread making

DISEASE REACTION: resistant to Leaf rust (*Puccinia triticina*), Stem rust (*Puccinia graminis* f. sp. *tritici*) and Loose smut (*Ustilago tritici*), moderately resistant to Fusarium head blight (*Fusarium graminearum*) and Common bunt (*Tilletia caries*, *Tilletia foetida*)

PEST REACTION: susceptible to wheat midge (*Sitodiplosis mosellana*)

Origin and Breeding: 'BW410' (99B51-EZ2B) derives from the cross McKenzie // BW257 / 94B92-Y3B that was made in 1999 at the Cereal Research Centre, AAFC, Winnipeg, Manitoba. McKenzie derives from Columbus / Amidon. 94B92-Y3B derives from 90B01-F3C / AC Domain and 90B01-F3C derives from AC Minto*2 / ND643. Spike selections were made at the F2, F3 and F6 generations following observations of agronomic type and disease resistance. Following 2 years of testing in multi-location yield trials in 2005 and 2006, 99B51-EZ2B was entered as BW410 into the Central Bread Wheat Coop Trials in 2007.

Tests and Trials: Tests and trials were conducted during the summers of 2009 and 2010 in Portage la Prairie, Manitoba. Plots consisted of 5 rows with a row length of 4.3 meters and a row spacing of 23 cm. There were 4 replicates arranged in a RCB design.

Comparison table for 'BW410'

	'BW410'	**'Vesper'***	**'Superb'***	**'Unity'***	**'Waskada'***
Spike length (excluding awns) (cm)					
mean	7.3	7.9	7.5	7.3	7.2
std. deviation	0.6	0.5	0.6	0.6	0.7
Days to maturity					
mean	109	108	110	107	109

Means are based on the average of the two years

*reference varieties

Proposed denomination: **'Branson'**
Application number: 08-6458
Application date: 2008/10/16
Applicant: Syngenta Seeds Inc., Minneapolis, Minnesota, United States of America
Agent in Canada: Hyland Seeds (a Division of Dow AgroSciences, Inc.), Ailsa Craig, Ontario
Breeder: Curtis Beazer, Syngenta Seeds Inc., Brookston, Indiana, United States of America

Varieties used for comparison: 'Emmit' and 'HY116-SRW'

Summary: *At the four leaf stage, the lower leaves of 'Branson' are glabrous while they are pubescent in the reference varieties. 'Branson' has a shorter flag leaf than 'HY116-SRW'. The flag leaf width of 'Branson' is narrower than the reference varieties. 'Branson' has absent or very weak intensity of anthocyanin colouration of the flag leaf auricles while it*

is a medium intensity in 'Emmit'. 'Branson' heads earlier than the reference varieties. The plant height of 'Branson' is shorter than the reference varieties. 'Branson' has medium glaucosity of the neck of the culm while it is strong to very strong in the reference varieties. At heading, the spike of 'Branson' has absent or very weak glaucosity while it is strong in the reference varieties. 'Branson' has a shorter spike than 'Emmit'. The hairiness of the convex surface of the apical rachis segment of the spike in 'Branson' is medium while it is sparse in 'Emmit'. 'Branson' has a narrower lower glume than 'HY116-SRW'. The lower glume length of 'Branson' is long while it is medium length in the reference varieties. 'Branson' has a straight to slightly curved lower glume beak while it is moderately curved in 'HY116-SRW'. The extent of the internal hairs of the lower glume in 'Branson' is sparse while they are medium in 'Emmit'. 'Branson' has a straight lemma beak while it is slightly curved in 'Emmit'. The brush hairs on the kernel of 'Branson' are short to medium in length while they are medium to long in 'HY116-SRW' and long in 'Emmit'. 'Branson' has an oval shaped germ while it is round in the reference varieties. The width of the kernel crease in 'Branson' is narrow while it is medium width in 'HY116-SRW' and medium to wide in 'Emmit'.

Description:
PLANT: winter type, common wheat, semi-erect growth habit at the 5-9 tiller stage, medium glaucosity of the culm at heading, low to medium frequency of plants with recurved flag leaves, matures early

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, glabrous sheaths and blades of the lower leaves

FLAG LEAF: absent or very weak intensity of anthocyanin colouration of the auricles, medium to strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration
SPIKE: absent or very weak glaucosity at heading, parallel sided profile, medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, appressed awn attitude, erect to incline attitude, straight neck of the culm, medium hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow shoulder, slightly sloping shoulder, long, narrow, pubescent, short straight beak, sparse internal hairs
LEMMA: straight beak

KERNEL: soft red type, light red colour, medium to large size, medium length, narrow, broad elliptical, rounded cheek shape, short to medium length brush hairs, small to medium sized oval germ, narrow crease width, shallow crease depth

QUALITY: good pastry and biscuit making

DISEASE REACTION: resistant to Septoria nodorum blotch (*Septoria nodorum*), Powdery mildew (*Erysiphe graminis, f. sp. tritici*) and Leaf rust (*Puccinia triticina*), moderately resistant to Septoria tritici blotch (*Septoria tritici*) and Fusarium head blight (*Fusarium graminearum*), and moderately susceptible to Stem rust (*Puccinia graminis* f. sp. *tritici*)

Origin and Breeding: 'Branson' (experimental designation M00-3701) is a soft red winter wheat developed using the modified bulk breeding method by Agripro Wheat located in Brookston, Indiana, USA. 'Branson' derives from the cross made in 1993 of Pioneer 2737W / 89I-4584A, where 89I-4584A derives from Pike / Florida 302. F1 seed was increased in Jonesboro, Arkansas. The F2 and F3 bulk populations were grown in Brookston, Indiana. In 1997, the F4 bulk was abandoned because of poor stands. In 1998, remnant seed was planted to recreate the F4 bulk. Sixty-one heads were selected and planted as F5 head rows near Lafayette, Indiana in 1998-99. Four selections entered preliminary yield testing in 2000. 'Branson' was selected for advancement and 100 uniform heads were selected and planted in an isolated increase block. Ninety-nine rows were bulk harvested and sent to Colorado for initial Breeders seed increase. Hyland Seeds tested 'Branson' within the 2004-05 and 2005-06 orthogonal Trial across Ontario. Selection criteria used were high yield, quality and other agronomic characteristics.

Tests and Trials: Tests and trials were conducted during 2009 and 2010 in Nairn, Ontario. Plots consisted of 5 rows, with a row length of 4 meters and a row spacing of 20 cm. Plots were seeded at a rate of 400 seeds per meter squared. There were 4 replicates arranged in a RCB design.

Comparison table for 'Branson'

	'Branson'	'Emmit'*	'HY116-SRW'*
Flag leaf length (cm)			
mean	16.25	18.09	19.71
std. deviation	2.084	1.185	2.69
Flag leaf width (mm)			
mean	10.66	12.71	12.01
std. deviation	1.05	0.76	1.25
Days to heading (days from planting to when 50% of heads fully emerged from boot)			
mean	153	155	155
Plant height (including awns) (cm)			
mean	83.6	92.2	96.0
std. deviation	7.68	8.84	9.32
Spike length (excluding awns)(cm)			
mean	6.67	7.71	6.92
std. deviation	1.04	0.65	0.84

Means are based on the average of the two years.

*reference varieties

Wheat: 'Branson' (centre) with reference varieties 'HY116-SRW' (right) and 'Emmit' (left)

Wheat: 'Branson' (middle) with reference varieties 'Emmit' (top) and 'HY116-SRW' (bottom)

Proposed denomination: **'Broadview'**
Application number: 09-6723
Application date: 2009/09/02
Applicant: Agriculture & Agri-Food Canada, Lethbridge, Alberta
Agent in Canada: Agriculture & Agri-Food Canada, Lacombe, Alberta
Breeder: Robert Graf, Agriculture & Agri-Food Canada, Lethbridge, Alberta

Varieties used for comparison: 'CDC Falcon' and 'CDC Raptor'

Summary: *'Broadview' has a high frequency of plants with recurved flag leaves while it is a medium frequency in 'CDC Falcon'. The flag leaf of 'Broadview' is narrower than the reference varieties. 'Broadview' heads and matures earlier than 'CDC Raptor'. The glaucosity of the neck of the culm at heading in 'Broadview' is medium while it is absent or very weak in 'CDC Raptor'. At maturity, the spike attitude in 'Broadview' is inclined while it is erect in 'CDC Raptor'. 'Broadview' is taller than 'CDC Falcon'. 'Broadview' has a slightly sloping to straight shoulder shape of the lower glume while it is sloping to slightly sloping in 'CDC Raptor'. The beak of the lower glume in 'Broadview' is a medium length while it is short in 'CDC Raptor'. 'Broadview' has a slightly darker light tan chaff colour while it is slightly yellowish in 'CDC Falcon' and 'CDC Raptor'. 'Broadview' has absent or very sparse internal hairs of the lower glume while it is sparse to medium in 'CDC Raptor'. 'Broadview' is resistant to leaf rust while 'CDC Falcon' and 'CDC Raptor' are moderately resistant.*

Description:
PLANT: winter type, common wheat, semi-erect growth habit at the 5-9 tiller stage, medium glaucosity of the culm at heading, high frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, very sparse to sparse pubescence on the sheaths of the lower leaves, glabrous blades of the lower leaves

FLAG LEAF: weak intensity of anthocyanin colouration of the auricles, drooping attitude, strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): hollow pith in cross-section, no anthocyanin colouration

SPIKE: very weak to weak glaucosity at heading, tapering profile, lax to medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, yellowish awns, incline attitude, spreading awn attitude, straight neck of the culm, absent or very sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: light tan colour, narrow shoulder, slightly sloping to straight shoulder, medium to long, medium width, glabrous to very sparse pubescence, medium length slightly curved beak, absent or very sparse internal hairs
LEMMA: slightly curved beak

KERNEL: hard red type, medium red colour, medium to large size, short to medium length, medium width, elliptical to ovate, rounded cheek shape, short to medium length brush hairs, small to medium sized oval germ, medium crease width, medium crease depth, brown colour reaction to phenol

AGRONOMY: good resistance to shattering, fair drought tolerance, good winter survival

DISEASE REACTION: resistant to leaf rust (*Puccinia triticina*) and stem rust (*Puccinia graminis* f. sp. *tritici*), moderately resistant to moderately susceptible to powdery mildew (*Erysiphe graminis* f. sp. *tritici*) and stripe rust (*Puccinia striiformis*), susceptible to highly susceptible to fusarium head blight (*Fusarium graminearum*), highly susceptible to common bunt (*Tilletia caries, Tilletia foetida*)

Origin and Breeding: 'Broadview' (experimental designation W425) derives from the cross KS92WGRC15 / CDC Kestrel // CDC Falcon made in 1997 at the AAFC Lethbridge Research Centre, Lethbridge, Alberta. Following multiplication of the F1 seed, F2 seedlings were screened for resistance to stem and leaf rust, with the best plants utilized for double haploid production using the maize hybridization technique. Initial row evaluation of doubled haploid lines took place in 2002, in which selection was based on winter survival, plant vigour, straw strength, plant height, protein content and test weight. Stem and leaf rust resistance was evaluated from 2003 to 2005 in Winnipeg, Manitoba. Based on the resistance to stem and leaf rust in 2003, a line designated LE1911 was grown in an irrigated, single replicate preliminary agronomic trial with repeated checks at Lethbridge in 2004. It was entered into the 2005 AAFC B2 test and was subsequently evaluated as W425 in the Western Wheat Cooperative Registration Trial from 2006 to 2008.

Tests and Trials: Tests and trials were conducted in 2009 and 2010 in Lethbridge, Alberta. Plots consisted of 4 rows with a row length of 3.5 meters and a row spacing of 23 cm. There were 4 replicates in 2009 and 5 replicates in 2010.

Comparison table for 'Broadview'

	'Broadview'	**'CDC Falcon'***	**'CDC Raptor'***
Flag leaf width (mm)			
mean 2009	10.1	12.0	13.4
std. deviation	1.0	0.8	1.0
mean 2010	14.4	15.2	15.4
std. deviation	0.7	1.2	1.0
Plant height (cm)			
mean 2009	86.67	81.00	91.33
std. deviation	2.08	2.65	1.53
mean 2010	97.67	92.00	100.33
std. deviation	2.08	2.00	5.69

*reference varieties

Wheat: 'Broadview' (right) with reference varieties 'CDC Falcon' (centre left) and 'CDC Raptor' (centre right)

Proposed denomination: **'Flourish'**
Application number: 10-6954
Application date: 2010/04/30
Applicant: Agriculture & Agri-Food Canada, Lethbridge, Alberta
Agent in Canada: Agriculture & Agri-Food Canada, Lacombe, Alberta
Breeder: Robert Graf, Agriculture & Agri-Food Canada, Lethbridge, Alberta

Varieties used for comparison: 'CDC Falcon', 'CDC Raptor' and 'Broadview'

Summary: *The flag leaf of 'Flourish' is shorter than the flag leaves of all the reference varieties. 'Flourish' has a low to medium frequency of plants with recurved flag leaves while it is medium to high in 'CDC Raptor' and high in 'Broadview'. 'Flourish' has an erect flag leaf attitude while it is drooping in 'CDC Raptor' and 'Broadview' and drooping to horizontal in 'CDC Falcon'. The flag leaf auricles of 'Flourish' have medium anthocyanin colouration while it is weak in the reference varieties. 'Flourish' heads and matures earlier than 'CDC Raptor'. The glaucosity of the neck of the culm at heading in 'Flourish' is weak to medium while it is absent or very weak in 'CDC Raptor'. 'Flourish' has an erect spike attitude at maturity while it is inclined in 'CDC Falcon' and 'Broadview'. The spike of 'Flourish' is shorter than the reference varieties. 'Flourish' has a spike glaucosity that is weak to medium while it is absent or very weak in 'CDC Falcon' and 'Broadview' and very weak to weak in 'CDC Raptor'. The lower glume shoulder shape in 'Flourish' is slightly sloping to straight while it is sloping to slightly sloping in 'CDC Raptor'. 'Flourish' has a narrow to medium width shoulder of the lower glume while it is very narrow to narrow in 'CDC Falcon'. The lower glume beak of 'Flourish' is short to medium in length while it is medium to long in 'CDC Falcon'. The extent of internal hairs of the lower glume is sparse to medium for 'Flourish' while it is very sparse to sparse for 'CDC Falcon' and absent or very sparse for 'Broadview'. The winter survival for 'Flourish' is fair while it is good in 'CDC Raptor' and 'Broadview'. 'Flourish' is moderately resistant to common bunt while the reference varieties are highly susceptible.*

Description:
PLANT: winter type, common wheat, semi-erect growth habit at the 5-9 tiller stage, weak to medium glaucosity of the culm at heading, low to medium frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): very weak to weak intensity of anthocyanin colouration of the coleoptile, glabrous to sparse pubescence on the sheaths of the lower leaves, glabrous blades of the lower leaves

FLAG LEAF: medium intensity of anthocyanin colouration of the auricles with slightly pubescent margins, erect attitude, medium to strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): hollow pith in cross-section, no anthocyanin colouration
SPIKE: weak to medium glaucosity at heading, tapering profile, lax to medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, yellowish awns, erect attitude, spreading awn attitude, straight neck of the culm, absent or very sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow to medium width shoulder, slightly sloping to straight shoulder, medium to long, medium to broad, glabrous to sparse pubescence, short to medium length beak, slightly to moderately curved beak, sparse to medium internal hairs
LEMMA: slightly curved beak

KERNEL: hard red type, medium red colour, medium size, medium length and width, elliptical to ovate, rounded cheek shape, medium length brush hairs, small to medium sized oval germ, medium crease width, medium crease depth, brown colour reaction to phenol

AGRONOMY: good resistance to shattering, poor to fair drought tolerance, fair winter survival

QUALITY: good milling and baking

DISEASE REACTION: moderately resistant to stripe rust (*Puccinia striiformis*) and common bunt (*Tilletia caries, Tilletia foetida*), moderately resistant to moderately susceptible to leaf rust (*Puccinia triticina*) and stem rust (*Puccinia graminis* f. sp. *tritici*), moderately susceptible to powdery mildew (*Erysiphe graminis* f. sp. *tritici*), and susceptible to highly susceptible to fusarium head blight (*Fusarium graminearum*)

Origin and Breeding: 'Flourish' (experimental designation W434) derives from the cross RL4746 / Blizzard // CDC Kestrel /3/ CDC Falcon made in 1997 at the AAFC Lethbridge Research Centre, Lethbridge, Alberta. Following greenhouse multiplication of the F1 seed, F2 seed was inoculated with common bunt and vernalized for 9 weeks in a dark growth chamber at 1 degree Celsius. At the 3 leaf stage, seedlings were screened for reaction to stem and leaf rust, with resistant plants utilized for double haploid production using the maize hybridization technique. Haploid embryos rescued from donor plants exhibiting bunt susceptibility were discarded. Initial row evaluation of doubled haploid lines took place in 2002, in which selection was based on winter survival, plant type and vigour, straw strength, plant height, protein content and test weight. Stem and leaf rust resistance was evaluated from 2003 to 2006 in Winnipeg, Manitoba. Based on the resistance to stem and leaf rust in 2003, a line designated LE1213 was grown in an irrigated, single replicate preliminary agronomic trials with repeated checks at Lethbridge in 2004. It was entered into A and B level trials in 2005 and 2006 respectively. Following pre-registration testing across western Canada it was evaluated as W434 in the Western Wheat Cooperative Registration Trial from 2007 to 2009.

Tests and Trials: Tests and trials were conducted in 2009 and 2010 in Lethbridge, Alberta. Plots consisted of 4 rows with a row length of 3.5 meters and a row spacing of 23 cm. There were 4 replicates in 2009 and 5 replicates in 2010.

Comparison table for 'Flourish'

	'Flourish'	'CDC Falcon'*	'CDC Raptor'*	'Broadview'*
Flag leaf length (cm)				
mean 2009	14.3	15.9	17.5	17.0
std. deviation	2.1	1.9	2.2	2.2
mean 2010	19.2	23.6	23.9	25.3
std. deviation	2.9	3.0	2.9	2.5

Days to heading (days from planting to when 50% of heads fully emerged from boot)				
mean	170	170	173	170
Days to maturity				
mean	212	212	215	212
Spike length (excluding awns)(mm)				
mean 2009	93	100	101	101
std. deviation	6	7	8	7
mean 2010	81	91	88	101
std. deviation	6	7	6	4

*reference varieties

Wheat: 'Flourish' (left) with reference varieties 'CDC Falcon' (centre left), 'CDC Raptor' (centre right) and 'Broadview' (right)

Proposed denomination: **'HY116-SRW'**
Application number: 09-6660
Application date: 2009/06/09
Applicant: Agrigenetics, Inc. (a Division of Dow AgroSciences Inc.), Indianapolis, Indiana, United States of America
Agent in Canada: Hyland Seeds (a Division of Dow AgroSciences, Inc.), Ailsa Craig, Ontario
Breeder: Mark Etienne, Hyland Seeds (a Division of Dow AgroSciences, Inc.), Ailsa Craig, Ontario

Varieties used for comparison: 'Emmit' and 'Branson'

Summary: *The pubescence of the lower leaves at the 4 leaf stage for 'HY116-SRW' is sparse to medium while it is absent or very sparse for 'Branson'. 'HY116-SRW' has a flag leaf that is longer than the reference varieties and wider than 'Branson'. The anthocyanin colouration of the auricles of the flag leaf in 'HY116-SRW' is absent or very weak while it is medium for 'Emmit'. 'HY116-SRW' heads later than 'Branson'. The plant height of 'HY116-SRW' is taller than 'Branson'. 'HY116-SRW' has a strong to very strong glaucosity of the neck of the culm while it is medium in 'Branson'. 'HY116-SRW' has a strong glaucosity of the spike while it is absent or very weak in 'Branson'. At maturity, the spike attitude of 'HY116-SRW' is*

incline while it is erect in 'Branson'. 'HY116-SRW' has a shorter spike than 'Emmit'. The lower glume of 'HY116-SRW' has a medium width while it is narrow in 'Branson'. 'HY116-SRW' has a moderately curved beak of the lower glume while it is straight in 'Branson' and slightly curved in 'Emmit'. The lower glume of 'HY116-SRW' has sparse internal hairs while it is moderate in 'Emmit'. 'HY116-SRW' has a medium width kernel while it is narrow in 'Branson'. The width of the kernel crease in 'HY116-SRW' is medium while it is narrow in 'Branson'.

Description:
PLANT: winter type, common wheat, erect to semi-erect growth habit at the 5-9 tiller stage, strong to very strong glaucosity of the neck of the culm at heading, medium to high frequency of plants with recurved flag leaves, early to medium maturity

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, absent or very sparse pubescence of the sheaths of the lower leaves, sparse to medium pubescence of the blades of the lower leaves

FLAG LEAF: absent or very weak anthocyanin colouration of the auricles, strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration
SPIKE: strong glaucosity at heading, parallel sided profile, medium to dense, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, appressed awn attitude, incline attitude, straight neck of the culm, sparse to medium hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow shoulder, slightly sloping shoulder, medium length, medium width, very sparse pubescence, short moderately curved beak, sparse internal hairs
LEMMA: straight beak

KERNEL: soft red type, light red colour, medium to large size, short to medium length, medium width, oval to broad elliptical, rounded cheek shape, medium to long brush hairs, medium sized round to oval germ, medium crease width, medium crease depth

QUALITY: good pastry and biscuit making

DISEASE REACTION: resistant to Powdery mildew (*Erysiphe graminis, f. sp. tritici*), Septoria nodorum blotch (*Septoria nodorum*), and Leaf rust (*Puccinia triticina*), moderately resistant to Septoria tritici blotch (*Septoria tritici*) and Fusarium head blight (*Fusarium graminearum*), and moderately susceptible to Stem rust (*Puccinia graminis* f. sp. *tritici*)

Origin and Breeding: 'HY116-SRW' (experimental designation 'TWF116-072') is a winter wheat variety bred and developed by Hyland Seeds Inc. 'HY116-SRW' derives from the cross made in 1996 of WF042 (P2510 // Freedom / FHB148) / Freedom at Ailsa Craig, Ontario. The doubled haploid method with maize hybridization was used to breed this variety at the F1 generation. The Y2 was planted in the fall of 2000, and selected in 2001 on the basis of yield, seed and test weight. 'HY116-SRW' was entered into a 2-replicate trial in the fall of 2001 to 2005 where it was evaluated for yield. It was entered into the Orthogonal Soft Wheat Trial in Ontario in 2005 and 2006.

Tests and Trials: Tests and trials were conducted in 2009 and 2010 at Nairn, Ontario. Plots consisted of 5 rows with a row length of 4 meters and a row spacing 20 cm. Plots were seeded at a rate of 400 seeds per meter squared. There were 4 replicates arranged in a RCB design.

Comparison table for 'HY116-SRW'

	'HY116-SRW'	**'Emmit'***	**'Branson'***
Flag leaf length (cm)			
mean	19.71	18.09	16.25
std. deviation	2.69	1.19	2.08
Flag leaf width (mm)			
mean	12.01	12.71	10.66
std. deviation	1.25	0.76	1.05
Days to heading (from planting to 50% of heads fully emerged from boot)			
mean	155	155	153

Plant height (cm)			
mean	96.0	92.2	83.6
std. deviation	9.32	8.84	7.68
Spike length (cm)			
mean	6.92	7.71	6.67
std. deviation	0.84	0.65	1.04

Means are based on the average of the two years.

*reference varieties

Wheat: 'HY116-SRW' (right) with reference varieties 'Emmit' (left) and 'Branson' (middle)

Wheat: 'HY116-SRW' (bottom) with reference varieties 'Emmit' (top) and 'Branson' (middle)

Proposed denomination:	**'HY124-HRS'**
Application number:	09-6659
Application date:	2009/06/09
Applicant:	Agrigenetics, Inc. (a Division of Dow AgroSciences Inc.), Indianapolis, Indiana, United States of America
Agent in Canada:	Hyland Seeds (a Division of Dow AgroSciences, Inc.), Ailsa Craig, Ontario
Breeder:	Mark Etienne, Hyland Seeds (a Division of Dow AgroSciences, Inc.), Ailsa Craig, Ontario

Varieties used for comparison: 'Hobson' and 'Tokson'

Summary: *The coleoptile of 'HY124-HRS' has absent or very weak intensity of anthocyanin colouration while it is medium to strong in 'Hobson'. 'HY124-HRS' has weak pubescence of the sheaths of the lower leaves at the 4 leaf stage while it is medium pubescence in the reference varieties. At the 4 leaf stage, 'HY124-HRS' has medium to dense pubescence on the blades of the lower leaves while it is weak to medium in 'Hobson'. 'HY124-HRS' has a shorter flag leaf than 'Hobson' and a wider one than 'Tokson'. The flag leaf auricles of 'HY124-HRS' have absent or very weak anthocyanin colouration while it is very strong in 'Hobson' and weak to medium in 'Tokson'. 'HY124-HRS' has a strong to very strong glaucosity of the neck of the culm while it is medium to strong for 'Hobson'. The spike of 'HY124-HRS' has very strong glaucosity while it is strong in 'Hobson'. At maturity, the shape of the neck of the culm in 'HY124-HRS' is moderately to strongly curved while it is straight for the reference varieties. 'HY124-HRS' has an erect spike attitude at maturity while it is inclined for the reference varieties. The hairiness of the convex surface of the apical rachis segment in 'HY124-HRS' is sparse while it is absent or very sparse in 'Hobson'. 'HY124-HRS' has very sparse to sparse pubescence of the lower glume while it is sparse to medium in 'Hobson'. The shape of the shoulder of the lower glume in 'HY124-HRS' is sloping to slightly sloping while it is straight in 'Hobson' and slightly sloping to straight in 'Tokson'. 'HY124-HRS' has a narrow shoulder of the lower glume while it is medium to broad in 'Hobson'.*

Description:
PLANT: spring type, common wheat, semi-erect growth habit at the 5-9 tiller stage, strong to very strong glaucosity of the neck of the culm at heading, medium frequency of plants with recurved flag leaves, medium maturity

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, sparse pubescence of the sheaths of the lower leaves, medium to dense pubescence of the blades of the lower leaves

FLAG LEAF: absent or very weak intensity of anthocyanin colouration of the auricles, strong to very strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin to medium thickness of the pith in cross-section, no anthocyanin colouration
SPIKE: very strong glaucosity at heading, parallel sided profile, medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, spreading awn attitude, erect attitude, moderately to strongly curved neck of the culm, sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow shoulder, sloping to slightly sloping shoulder, medium length, medium width, glabrous, long slightly to moderately curved beak, sparse to medium number of internal hairs
LEMMA: straight beak

KERNEL: hard red type, medium red colour, large size, medium length, medium to broad, oval to broad elliptical, rounded cheek shape, short to medium length brush hairs, medium to large sized round germ, medium to wide crease width, shallow to medium crease depth

QUALITY: good bread making, poor pastry and biscuit making

DISEASE REACTION: resistant to Powdery mildew (*Erysiphe graminis, f. sp. tritici*), Leaf rust (*Puccinia triticina*) and Barley yellow dwarf virus (BYDV), resistant to moderately resistant to Septoria nodorum blotch (*Septoria nodorum*) and Stem rust (*Puccinia graminis* f. sp. *tritici*), and moderately resistant to Septoria tritici blotch (*Septoria tritici*) and Fusarium head blight (*Fusarium graminearum*)

Origin and Breeding: 'HY124-HRS' (experimental designation SW124-029) is a spring wheat variety bred and developed by Hyland Seeds Inc. 'HY124-HRS' derives from the cross made in 1999 of Grandin / Celtic // Mamba at Ailsa Craig, Ontario. The doubled haploid method was used to breed this variety. In 2000, it was grown and evaluated in a 3-row nursery plot. The assessment, selection and advancement of the variety from 2000 to 2006 was based on its reaction to available leaf and stem diseases, straw strength, height, and seed and other agronomic and quality characteristics. 'HY124-HRS' was tested in both private and public trials from 2001 to 2006

Tests and Trials: Tests and trials were conducted in 2009 and 2010 at St. Mary's, Ontario. Strip plots consisted of 5 rows with a row length of 22 meters and a row spacing 25 cm. Plots were seeded at a rate of 400 seeds per meter squared. There was only one replicate.

Comparison table for 'HY124-HRS'

	'HY124-HRS'	**'Hobson'***	**'Tokson'***
Flag leaf length (cm)			
mean	17.34	22.20	18.58
std. deviation	1.90	2.84	2.08
Flag leaf width (mm)			
mean	16.30	15.82	14.08
std. deviation	1.49	1.25	0.97
Spike length (excluding awns) (cm)			
mean	7.75	8.43	8.51
std. deviation	0.50	1.07	0.69

Means are based on the average of the two years.

*reference varieties

Wheat: 'HY124-HRS' (centre) with reference varieties 'Hobson' (left) and 'Tokson' (right)

Wheat: 'HY124-HRS' (middle) with reference varieties 'Hobson' (top) and 'Tokson' (bottom)

Proposed denomination: **'Keldin'**
Application number: 09-6746
Application date: 2009/10/16
Applicant: Pflanzenzucht Oberlimpurg, Schwabisch Hall, Germany
Agent in Canada: C & M Seeds, Palmerston, Ontario
Breeder: Peter Franck, Pflanzenzucht Oberlimpurg, Schwabisch Hall, Germany

Varieties used for comparison: 'Carlisle' and 'Maxine'

Summary: *'Keldin' has a medium frequency of plants with recurved flag leaves while it is a very low to low frequency in 'Carlisle'. The glaucosity of the sheath of the flag leaf in 'Keldin' is strong while it is medium in 'Carlisle' and absent or very weak in 'Maxine'. 'Keldin' heads later than the reference varieties. The spike glaucosity at heading for 'Keldin' is medium to strong while it is weak in 'Carlisle'. 'Keldin' has a taller plant height at maturity than 'Carlisle'. The pith in cross section at maturity for 'Keldin' is thin while it is medium to thick for 'Carlisle'. 'Keldin' has a dense spike while it is a medium density for the reference varieties. The spike of 'Keldin' is longer than the reference varieties. At maturity, the hairiness of the convex surface of the apical rachis segment in 'Keldin' is dense while it is very dense in 'Carlisle' and sparse in 'Maxine'. 'Keldin' matures later than 'Carlisle'. 'Keldin' has a medium shoulder width of the lower glume while it is narrow in 'Carlisle'. The shoulder shape of the lower glume in 'Keldin' is straight to elevated while it is slightly sloping for 'Maxine'. 'Keldin' has a moderately curved beak of the lower glume while it is slightly curved in 'Maxine'. The kernel of 'Keldin' has a medium crease width while it is narrow in 'Maxine'.*

Description:
PLANT: winter type, common wheat, erect growth habit at the 5-9 tiller stage, strong glaucosity of the culm at heading, medium frequency of plants with recurved flag leaves, medium maturity

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, glabrous sheaths and blades of the lower leaves

FLAG LEAF: absent or very weak intensity of anthocyanin colouration of the auricles, strong glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration
SPIKE: medium to strong glaucosity at heading, tapering profile, dense, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, nodding attitude, straight neck of the culm, dense hairiness of convex surface of apical rachis segment
LOWER GLUME: medium shoulder width, straight to elevated shoulder, medium length and width, medium to long beak, moderately curved beak

KERNEL: hard red type, dark red colour, medium size, medium to long, medium width, broad elliptical to elliptical, rounded cheek shape, short to medium length brush hairs, small to medium sized round to oval germ, medium crease width, very shallow crease depth

AGRONOMY: good resistance to shattering, fair to good winter survival

QUALITY: good bread making

Origin and Breeding: 'Keldin' (experimental designation ACS 55017) is a winter wheat variety developed by Dr. Peter Franck of ACS-PZO, Germany. The cross took place in Oberlimpurg, Germany during 1996 between (Bernburg 235 x Carlisle) / TRX-A16-3-2 using the pedigree breeding method. Selection criteria included high yield, lodging resistance, disease resistance and milling and bread making quality.

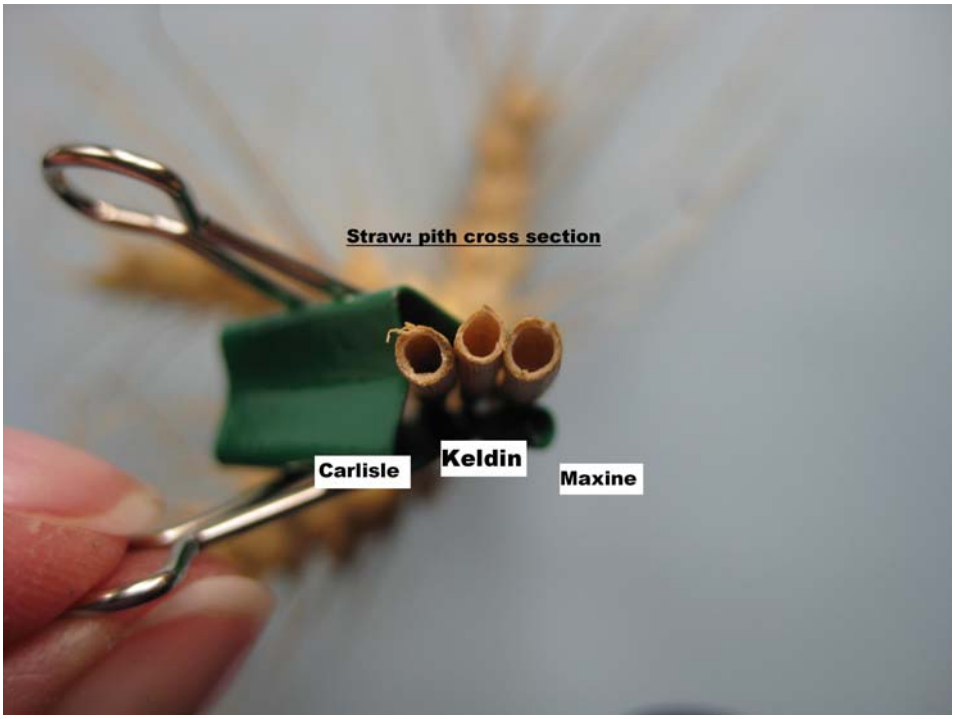
Tests and Trials: Test and trials were conducted in 2009 and 2010 at C&M Seeds in Palmerston, Ontario. Plots consisted of 8 rows with a row length of 4 meters and a row spacing of 15 cm. Planting density was 400 seeds per meter squared. There were 4 replicates arranged in an RCB design.

Comparison table for 'Keldin'

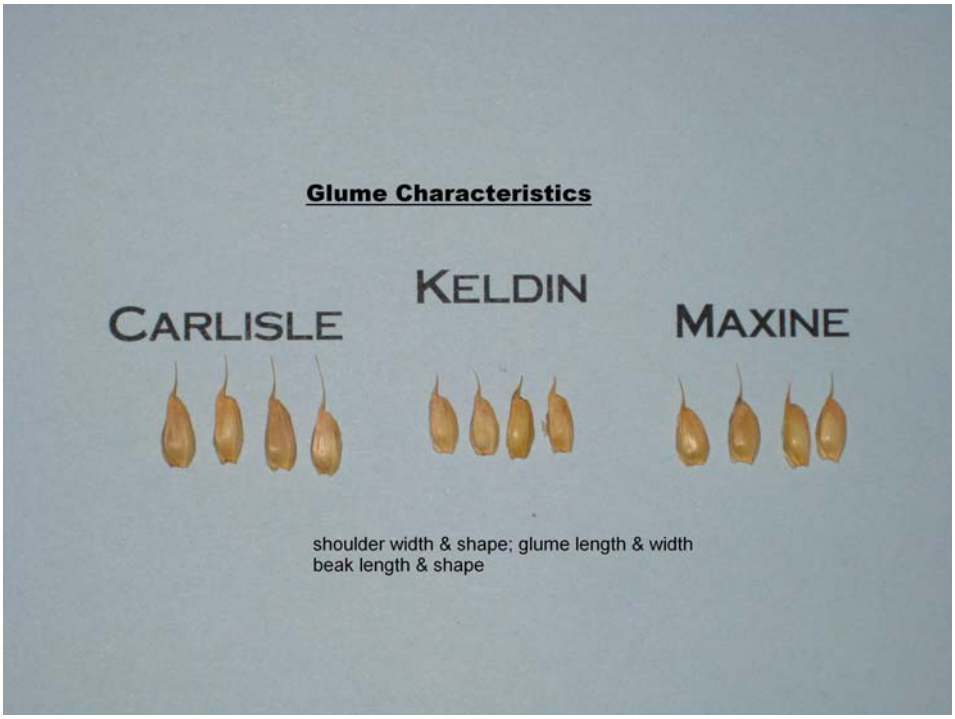
	'Keldin'	'Carlisle'*	'Maxine'*
Days to heading (days from planting to when 50% of heads fully emerged from boot)			
mean	162	158	158
Plant height at maturity (cm)			
mean	93	87	93
std. deviation	2.49	4.60	4.40
Spike length (excluding awns) (mm)			
mean	88	79	78
std. deviation	4.14	3.03	3.56

Means are based on the average of the two years.

*reference varieties



Wheat: 'Keldin' (center) with reference varieties 'Carlisle' (left) and 'Maxine' (right)



Wheat: 'Keldin' (center) with reference varieties 'Carlisle' (left) and 'Maxine' (right)

Proposed denomination: **'Peregrine'**
Application number: 08-6412
Application date: 2008/07/29
Applicant: University of Saskatchewan, Saskatoon, Saskatchewan
Agent in Canada: SeCan Association, Kanata, Ontario
Breeder: David Brian Fowler, University of Saskatchewan, Saskatoon, Saskatchewan

Variety used for comparison: 'McClintock'

Summary: *'Peregrine' has medium intensity of anthocyanin colouration of the coleoptile while it is weak in 'McClintock'. At the 4 leaf stage, 'Peregrine' has very sparse to sparse pubescence of the sheaths of the lower leaves and glabrous blades of the lower leaves while it is medium pubescence on the sheaths and sparse pubescence on the blades in 'McClintock'. 'Peregrine' has a high frequency of plants with recurved flag leaves while it is medium frequency in 'McClintock'. The glaucosity of the flag leaf sheath in 'Peregrine' is medium while it is strong in 'McClintock'. 'Peregrine' has a longer flag leaf than 'McClintock'. 'Peregrine' heads slightly later than 'McClintock'. At maturity, the convex surface of the apical rachis segment of 'Peregrine' has absent or very sparse hairiness while it is medium hairiness in 'McClintock'. 'Peregrine' has a long beak length of the lower glume while it is medium length in 'McClintock'. The kernel of 'Peregrine' has a medium crease width while it is narrow in 'McClintock'.*

Description:
PLANT: winter type, common wheat, prostrate growth habit at the 5-9 tiller stage, medium glaucosity of the culm at heading, high frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): medium intensity of anthocyanin colouration of the coleoptile, pubescent sheaths and glabrous blades of the lower leaves

FLAG LEAF: weak intensity of anthocyanin colouration of the auricles, medium glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration

SPIKE: weak glaucosity at heading, tapering profile, lax to medium density, awns present, awns shorter than the length of the spike
SPIKE AT MATURITY: white, whitish awns, nodding attitude, straight neck of the culm, absent or very sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: very narrow to narrow shoulder, sloping to slightly sloping shoulder, medium length, narrow, pubescent, long moderately curved beak

KERNEL: hard red type, dark red colour, small to medium size, medium length, medium width, elliptical, angular cheek shape, medium to long brush hairs, small to medium sized round to oval germ, medium crease width, very shallow crease depth

AGRONOMY: good resistance to shattering, fair to good drought tolerance, good winter survival, fair to good resistance to pre-harvest sprouting

DISEASE REACTION: moderately susceptible to powdery mildew (*Erysiphe graminis, f. sp. tritici*) and moderately susceptible to Septoria tritici blotch (*Septoria tritici*)

Origin and Breeding: 'Peregrine' (experimental designation DH99-37-100) is a winter wheat variety developed by the Department of Plant Sciences, University of Saskatchewan, Saskatoon, Saskatchewan. 'Peregrine' originates from the cross made in 1999 of McClintock / S86-808 using the doubled haploid method. Selection was made in field trials during 2001 to 2003 for agronomic traits and disease resistance.

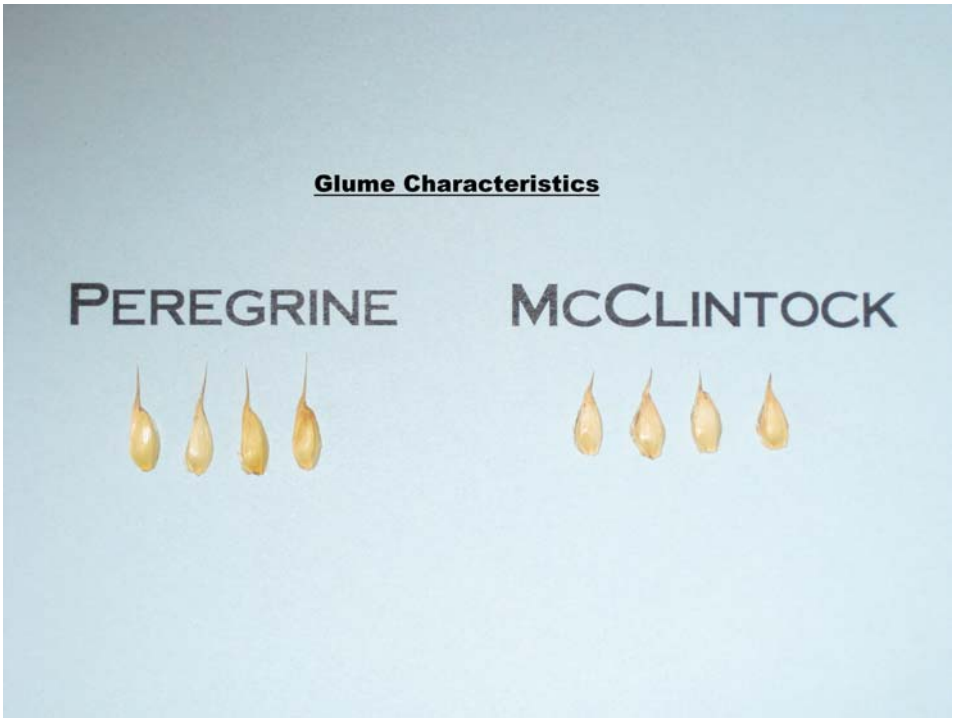
Tests and Trials: Test and trials were conducted in 2009 and 2010 at C&M Seeds in Palmerston, Ontario. Plots consisted of 8 rows with a row length of 4 meters and a row spacing of 15 cm. Planting density was 400 seeds per meter squared. There were 4 replicates arranged in an RCB design.

Comparison table for 'Peregrine'

	'Peregrine'	**'McClintock'***
Days to heading (days from planting to when 50% of heads fully emerged from boot)		
mean	165	163
Flag leaf length (cm)		
mean	26.1	23.4
std. deviation	2.74	2.93

Means are based on the average of the two years.

*reference variety



Wheat: 'Peregrine' (left) with reference variety 'McClintock' (right)

Wheat: 'Peregrine' (left) with reference variety 'McClintock' (right)

Wheat: 'Peregrine' (left) with reference variety 'McClintock' (right)

Proposed denomination: **'Vesper'**
Application number: 10-6999
Application date: 2010/06/10
Applicant: Agriculture & Agri-Food Canada, Winnipeg, Manitoba
Agent in Canada: Agriculture & Agri-Food Canada, Lacombe, Alberta
Breeder: Stephen Fox, Agriculture & Agri-Food Canada, Winnipeg, Manitoba

Varieties used for comparison: 'BW410', 'Superb', 'Unity' and 'Waskada'

Summary: *The intensity of anthocyanin colouration of the coleoptile in 'Vesper' is absent or very weak while it is medium in 'Superb' and 'Waskada' but strong in 'Unity'. 'Vesper' has a weak to medium intensity of anthocyanin colouration of the auricles of the flag leaf while it is absent or very weak in 'BW410' and 'Unity'. 'Vesper' heads earlier than 'Superb'. The spike of 'Vesper' is slightly longer than 'BW410', 'Unity' and 'Waskada'. 'Vesper' is shorter at maturity than 'Waskada' but taller than 'Superb'. The lower glume of 'Vesper' is glabrous while it is pubescent in 'BW410' and 'Unity'. 'Vesper' has a short beak of the lower glume while it is medium length in 'Superb'. 'Vesper' matures earlier than 'Superb'. At maturity, the straw of 'Vesper' has no anthocyanin colouration while 'Unity' does. Like 'Unity', 'Vesper' is resistant to wheat midge while 'Waskada' is moderately resistant and 'BW410' and 'Superb' are susceptible.*

Description:
PLANT: spring type, common wheat, semi-erect growth habit at the 5-9 tiller stage, medium to strong glaucosity of the culm at heading, high frequency of plants with recurved flag leaves

SEEDLING (4 leaf stage): absent or very weak intensity of anthocyanin colouration of the coleoptile, glabrous sheaths and blades of the lower leaves

FLAG LEAF: weak to medium intensity of anthocyanin colouration of the auricles, medium glaucosity of the sheath, glabrous blade and sheath

STRAW (AT MATURITY): thin pith in cross-section, no anthocyanin colouration
SPIKE: medium to strong glaucosity at heading, parallel to semi-clavate profile, medium density, awns present, awns shorter than the length of the spike

SPIKE AT MATURITY: white, whitish awns, erect attitude, very sparse to sparse hairiness of convex surface of apical rachis segment
LOWER GLUME: narrow to medium width shoulder, straight, medium length and width, glabrous, short slightly curved beak, very sparse to sparse extent of internal hairs
LOWEST LEMMA: slightly curved beak

KERNEL: hard red type, medium red colour, medium size, medium length, medium width, ovate, rounded cheek shape, medium length brush hairs, medium to large sized round to oval germ, narrow crease width, medium crease depth

AGRONOMY: good resistance to shattering, fair resistance to pre-harvest sprouting

QUALITY: good bread making

DISEASE REACTION: resistant to Leaf rust (*Puccinia triticina*) and Stem rust (*Puccinia graminis* f. sp. *tritici*), moderately resistant to Fusarium head blight (*Fusarium graminearum*), moderately resistant to moderately susceptible to Loose smut (*Ustilago tritici*) and moderately susceptible to Common bunt (*Tilletia caries, Tilletia foetida*)

PEST REACTION: resistant to wheat midge (*Sitodiplosis mosellana*)

Origin and Breeding: 'Vesper' (experimental designation BB21-GV5, BW415) derives from the cross Augusta / Hard White Alpha // *3 AC Barrie / 6 / BW150*2 // Tp/Tm/3/2* Superb / 4 / 94B35-R5C / 5 / Superb. The last cross was made in 1999 at the Cereal Research Centre, AAFC, Winnipeg, Manitoba. Augusta is the source of the Sm 1 gene that provides resistance to wheat midge for this variety. Hard White Alpha derives from AC Foremost / Alpha 16, with Alpha 16 as a leaf rust resistant reselection of Alpha. BW150 derives from Katepwa*6 / RL4509 and is the source of the leaf rust resistance gene Lr21. 94B35-R5C derives from Grandin*2 / Caldwell. Spike selections were made only at the F3 generation following observations of agronomic type and disease resistance. Following 2 years of testing in multi-location yield trials in 2005 and 2006, BB21-GV5 was entered as BW415 into the Central Bread Wheat Coop Trials in 2007.

Tests and Trials: Tests and trials were conducted during the summers of 2009 and 2010 in Portage la Prairie, Manitoba. Plots consisted of 5 rows with a row length of 4.3 meters and a row spacing of 23 cm. There were 4 replicates arranged in a RCB design.

Comparison table for 'Vesper'

	'Vesper'	**'BW410'***	**'Superb'***	**'Unity'***	**'Waskada'***
Days to heading (days from planting to when 50% of heads fully emerged from boot)					
mean	51.9	53	54.1	53.3	53
Plant height at maturity (including awns) (cm)					
mean	107	110	101	108	111
std. deviation	7.8	5.3	8.0	4.7	6.3
Days to maturity					
mean	108	109	110	107	109
Spike length (excluding awns) (cm)					
mean	7.9	7.3	7.5	7.3	7.2
std. deviation	0.5	0.6	0.6	0.6	0.7

Means are based on the average of the two years

*reference varieties