



**WHEAT**  
*(Triticum aestivum)*

**Proposed denomination:** '6PQZV26B'  
**Application number:** 21-10527  
**Application date:** 2021/05/03  
**Applicant:** Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America  
**Agent in Canada:** Pioneer Hi-Bred Production Co., Calgary, Alberta  
**Breeder:** Kyle Lively, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
William J. Laskar, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
Greg Marshall, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America

**Variety used for comparison:** '25R40'

**Summary:** *At booting, '6PQZV26B' has a very high frequency of plants with recurved flag leaves while '25R40' has a medium frequency of plants with recurved flag leaves. The flag leaf sheath of '6PQZV26B' has a weak degree of glaucosity while that of '25R40' has an absent or very weak degree of glaucosity. At heading, the spike of '6PQZV26B' has a weak degree of glaucosity whereas the spike of '25R40' has a strong degree of glaucosity. The spike of '6PQZV26B' is fusiform in profile whereas the spike of '25R40' is parallel sided in profile. The spike of '6PQZV26B' is of a medium density whereas that of '25R40' is dense. The spike, excluding the awns, of '6PQZV26B' is longer than that of '25R40'. At maturity, the culm neck of '6PQZV26B' is straight while that of '25R40' is curved.*

**Description:**

**PLANT:** common wheat, winter type, semi-erect growth habit at 5 to 9 tiller stage, very high frequency of plants with recurved flag leaves, heads emerge late in the season

**SEEDLING (4 LEAF STAGE):** glabrous sheath and blade of lower leaves

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

**CULM NECK:** medium degree of glaucosity at heading, straight

**STRAW (AT MATURITY):** thin pith in cross-section

**SPIKE:** weak glaucosity at heading, fusiform shape in profile, medium density, coloured at maturity, inclined attitude

**AWNS:** equal to spike length, brown at maturity

**LOWER GLUME:** medium length and width, glabrous, sparse internal hair

**LOWER GLUME SHOULDER:** narrow, slightly sloping

**LOWER GLUME BEAK:** short, slightly curved shape

**LOWEST LEMMA:** slightly curved beak

**KERNEL:** soft red type, medium red, large, medium length, narrow, elliptical, rounded cheek, medium length brush hairs, narrow crease of medium depth

**GERM:** medium size, broad elliptical

**Origin and Breeding:** '6PQZV26B' (experimental designation 25R28) was developed using the pedigree method of plant breeding. The variety resulted from a three way cross between a proprietary line and the varieties '25R37' and '25R47' conducted at Pioneer Hi-Bred International, Inc. in Windfall, Indiana, USA in 2008. The variety was advanced in Windfall, Indiana based on grain yield, test weight, maturity, disease resistance, plant type, plant height, head type, straw strength as well as milling and baking characteristics with one F7 line designated as 25R28 in 2015. Breeder seed was established at the F10 generation in 2020.

**Tests and Trials:** The comparative trial for ‘6PQZV26B’ was conducted at Pioneer Hi-Bred Production Limited in Caledon, Ontario during the 2021 growing season. There were 3 replicates arranged in an RCB design. Each plot consisted of 6 rows, each row measuring 3.2 metres long, with an inter-row spacing of 30 cm. The planting density resulted in 7800 plants per variety. Measured characteristics were based on 24 measurements per variety. Mean differences were significant at the 5% confidence probability level based on a paired Student’s t-test. Results were supported by the official technical examination report 202100023, purchased from the Plant Variety Protection Office in Washington, District of Columbia, USA.

**Comparison table for ‘6PQZV26B’**

	‘6PQZV26B’	‘25R40’*
<i>Spike length (excluding awns) (cm)</i>		
mean	4.5	4.1
std. deviation	0.4	0.3

\*reference variety



Wheat: ‘6PQZV26B’ (bottom) with reference variety ‘25R40’ (top)



Wheat: '6PQZV26B' (left) with reference variety '25R40' (right)

**Proposed denomination:** '6PSQD81B'  
**Application number:** 21-10528  
**Application date:** 2021/05/03  
**Applicant:** Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America  
**Agent in Canada:** Pioneer Hi-Bred Production Co., Calgary, Alberta  
**Breeder:** Kyle Lively, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
 William J. Laskar, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
 Robert Clarkson, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America

**Varieties used for comparison:** '25R46' and '6PZNF07B'

**Summary:** *At booting, '6PSQD81B' has a low to medium frequency of plants with recurved flag leaves while '25R46' has a very high frequency of plants with recurved flag leaves. The flag leaf of '6PSQD81B' is longer and narrower than the flag leaf of '6PZNF07B' and wider than that of '25R46'. The flag leaf sheath of '6PSQD81B' has an absent or very weak degree of glaucosity while the flag leaf sheath of '25R46' has a weak degree of glaucosity. At heading, the spike of '6PSQD81B' has a weak degree of glaucosity while the spike of '25R46' has a medium to strong degree of glaucosity and that of '6PZNF07B' has an absent or very weak degree of glaucosity. At maturity, the plants of '6PSQD81B' are shorter than those of '25R46' and '6PZNF07B'. The spike of '6PSQD81B' is fusiform in profile whereas the spike of '6PZNF07B' is parallel sided in profile. The spike of '6PSQD81B' has an inclined attitude while that of '6PZNF07B' has a nodding attitude. The culm neck of '6PSQD81B' is curved while those of the reference varieties are straight.*

**Description:**

**PLANT:** common wheat, winter type, semi-erect growth habit at 5 to 9 tiller stage, low to medium frequency of plants with recurved flag leaves, heads emerge late in the season

**SEEDLING (4 LEAF STAGE):** glabrous sheath and blade of lower leaves

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

**CULM NECK:** strong degree of glaucosity at heading, curved

**STRAW (AT MATURITY):** thin pith in cross-section

**SPIKE:** weak glaucosity at heading, fusiform shape in profile, medium density, white at maturity, inclined attitude

**AWNS:** longer than spike, brown at maturity

**LOWER GLUME:** medium length and width, glabrous, sparse internal hair

**LOWER GLUME SHOULDER:** narrow, slightly sloping

**LOWER GLUME BEAK:** short, straight

**LOWEST LEMMA:** straight beak

**KERNEL:** soft white type, white, large, medium length and width, broad elliptical, rounded cheek, medium length brush hairs, crease of medium width and depth

**GERM:** small, oval

**Origin and Breeding:** '6PSQD81B' (experimental designation 25W37) was developed using the pedigree method of plant breeding. The variety resulted from a three way cross between 25R30, 112304W and a proprietary line, conducted at Pioneer Hi-Bred International, Inc. in Windfall, Indiana, USA in 2008. The variety was advanced in Windfall, Indiana based on grain yield, test weight, maturity, disease resistance, plant type, plant height, head type, straw strength as well as milling and baking characteristics. One F7 line was designated 25W37 in 2015. Breeder seed was established at the F9 generation in 2017.

**Tests and Trials:** The comparative trial for '6PSQD81B' was conducted at Pioneer Hi-Bred Production Limited in Caledon, Ontario during the 2021 growing season. There were 3 replicates arranged in an RCB design. Each plot consisted of 6 rows, each row measuring 3.2 metres long, with an inter-row spacing of 30 cm. The planting density resulted in a total of 7800 plants per variety. Measured characteristics were based on 24 measurements per variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test. Results were supported by the official technical examination report 202100024, purchased from the Plant Variety Protection Office in Washington, District of Columbia, USA.

**Comparison table for '6PSQD81B'**

	'6PSQD81B'	'25R46'*	'6PZNF07B'*
<i>Flag leaf length (cm)</i>			
mean	18.4	17.8	16.1
std. deviation	2.50	3.06	1.84
<i>Flag leaf width (mm)</i>			
mean	11.8	11.1	12.7
std. deviation	0.8	1.0	0.8
<i>Plant height at maturity (stem plus spike, including awns) (cm)</i>			
mean	81.6	85.1	88.4
std. deviation	3.5	2.9	3.1

\*reference varieties



Wheat: '6PSQD81B' (left) with reference varieties '25R46' (centre) and '6PZNF07B' (right)

**Proposed denomination:** '6PZNF07B'  
**Application number:** 21-10532  
**Application date:** 2021/05/03  
**Applicant:** Pioneer Hi-Bred International, Inc., Johnston, Iowa, United States of America  
**Agent in Canada:** Pioneer Hi-Bred Production Co., Calgary, Alberta  
**Breeder:** Kyle Lively, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
 William J. Laskar, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America  
 Greg Marshall, Pioneer Hi-Bred International, Inc., Windfall, Indiana, United States of America

**Varieties used for comparison:** '25R46' and '6PSQD81B'

**Summary:** *At the 5-9 tiller stage, the plants of '6PZNF07B' have a semi-erect growth habit while those of '25R46' have an erect growth habit. At booting, '6PZNF07B' has a low frequency of plants with recurved flag leaves while '25R46' has a very high frequency of plants with recurved flag leaves. The flag leaf of '6PZNF07B' is shorter than that of '6PSQD81B' and wider than those of both reference varieties. The flag leaf sheath of '6PZNF07B' has an absent or very weak degree of glaucosity while the flag leaf sheath of '25R46' has a weak degree of glaucosity. At heading, the spike of '6PZNF07B' has an absent or very weak degree of glaucosity while the spike of '25R46' has a medium to strong degree of glaucosity and that of '6PSQD81B' has a weak degree of glaucosity. The culm neck of '6PZNF07B' has a medium degree of glaucosity while the culm neck of '25R46' has a very strong degree of glaucosity and that of '6PSQD81B' has weak degree of glaucosity. At maturity, the plants of '6PZNF07B' are taller than those of '25R46' and '6PSQD81B'. The spike of '6PZNF07B' is parallel sided in profile whereas the spike of the reference varieties are fusiform in profile. The spike, excluding the awns, of '6PZNF07B' is longer than the spike of '25R46'. The spike of '6PZNF07B' has a nodding attitude while those of the reference varieties have an inclined attitude. The culm neck of '6PZNF07B' is straight while that of '6PSQD81B' is curved. The lower glume of '6PZNF07B' is slightly sloping while that of '25R46' is sloping. The lower glume of '6PZNF07B' is short while the lower glume of '25R46' is medium in length and that of '25R46' is medium to long.*

**Description:**

**PLANT:** common wheat, winter type, semi-erect growth habit at 5 to 9 tiller stage, low frequency of plants with recurved flag leaves, heads emerge late in the season

**SEEDLING (4 LEAF STAGE):** glabrous sheath and blade of lower leaves

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

**CULM NECK:** medium degree of glaucosity at heading, straight

**STRAW (AT MATURITY):** thin pith in cross-section

**SPIKE:** absent or very weak glaucosity at heading, parallel sided shape in profile, medium density, coloured at maturity, nodding attitude

**AWNS:** longer than spike, brown at maturity

**LOWER GLUME:** short, medium width, glabrous, sparse internal hair

**LOWER GLUME SHOULDER:** absent or very narrow, slightly sloping

**LOWER GLUME BEAK:** very short, slightly curved

**LOWEST LEMMA:** slightly curved beak

**KERNEL:** soft red type, medium red, large, medium length, wide, broad elliptical, rounded cheek, medium length brush hairs, crease of medium width and depth

**GERM:** medium size, oval

**Origin and Breeding:** '6PZNF07B' (experimental designation XW18U) was developed using the pedigree method of plant breeding. The variety resulted from a three way cross. Two initial crosses were conducted, the first between a proprietary line and '25R34' and the second between a proprietary line and '25R47'. The resulting progeny were used as the parental lines in the final cross conducted at Pioneer Hi-Bred International, Inc. in Windfall, Indiana, USA in 2011. The variety was advanced in Windfall, Indiana based on grain yield, test weight, maturity, disease resistance, plant type, plant height, head type, straw

strength as well as milling and baking characteristics. One F7 line was designated XW18U in 2018. Breeder seed was established at the F9 generation in 2020.

**Tests and Trials:** The comparative trial for '6PZNF07B' was conducted at Pioneer Hi-Bred Production Limited in Caledon, Ontario during the 2021 growing season. There were 3 replicates arranged in an RCB design. Each plot consisted of 6 rows, each row measuring 3.2 metres long, with an inter-row spacing of 30 cm. The planting density resulted in a total of 7800 plants per variety. Measured characteristics were based on 24 measurements per variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test. Results were supported by the official technical examination report 202100021, purchased from the Plant Variety Protection Office in Washington, District of Columbia, USA.

**Comparison table for '6PZNF07B'**

	'6PZNF07B'	'25R46'*	'6PSQD81B'*
<i>Flag leaf length (cm)</i>			
mean	16.1	17.8	18.4
std. deviation	1.84	3.06	2.50
<i>Flag leaf width (mm)</i>			
mean	12.7	11.1	11.8
std. deviation	0.8	1.0	0.8
<i>Plant height at maturity (stem plus spike, including awns) (cm)</i>			
mean	88.4	85.1	81.6
std. deviation	3.1	2.9	3.5
<i>Spike length (excluding awns) (cm)</i>			
mean	4.8	4.4	4.6
std. deviation	0.3	0.3	0.4

\*reference varieties



Wheat: '6PZNF07B' (left) with reference varieties '25R46' (centre) and '6PSQD81B' (right)

**Proposed denomination:** 'CDC Envy'  
**Application number:** 21-10479  
**Application date:** 2021/04/28  
**Applicant:** University of Saskatchewan, Saskatoon, Saskatchewan  
**Breeder:** Pierre Hucl, University of Saskatchewan, Saskatoon, Saskatchewan

**Varieties used for comparison:** 'AAC Starbuck', 'CDC Bradwell' and 'CDC Go'

**Summary:** *At booting, the flag leaf of 'CDC Envy' is shorter than that of 'CDC Bradwell' and it is narrower than those of 'AAC Starbuck' and 'CDC Bradwell'. At heading, the glaucosity on the spike of 'CDC Envy' is of a weak degree whereas the glaucosity is of a medium degree on that of 'CDC Bradwell' and of a strong degree on that of 'CDC Go'. The spike, excluding the awns, of 'CDC Envy' is longer than the spike of 'CDC Bradwell'. The plants of 'CDC Envy' mature earlier than the plants of 'CDC Bradwell'. At maturity, the hairiness of the convex surface of the apical rachis segment for 'CDC Envy' is dense whereas it is sparse for 'CDC Bradwell'.*

**Description:**

**PLANT:** spring type, common wheat, erect growth habit at 5 to 9 tiller stage, medium to high frequency of plants with recurved flag leaves, heads emerge early, matures early season

**SEEDLING (4-leaf stage):** absent or very weak to weak intensity of anthocyanin colouration of coleoptile, glabrous sheath and blade of lower leaves

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

**CULM:** medium glaucosity, curved neck

**STRAW (at maturity):** thin pith in cross-section, no anthocyanin colouration

**SPIKE:** weak glaucosity at heading, tapering shape in profile, medium density, yellow at maturity, erect attitude, dense hairiness of convex surface of apical rachis segment

**AWNS:** present, shorter than spike, white at maturity

**LOWER GLUME:** medium length and width, glabrous, medium extent of internal hairs

**LOWER GLUME SHOULDER:** medium width, slightly sloping to straight shape

**LOWER GLUME BEAK:** long, slightly to moderately curved

**LOWEST LEMMA:** straight beak

**KERNEL:** hard red type, medium red, medium size, medium length and width, ovate shape, rounded cheek shape, medium length brush hairs, crease of medium width and depth

**GERM:** medium sized, round to broad elliptical shape

**Origin and Breeding:** 'CDC Envy' (experimental designations PT5003 and W15423) originated from a controlled cross conducted in a greenhouse in Saskatoon, Saskatchewan in 2010 between BW781.86 and the F1 of a cross between W09130 and the BC1 of a backcross between 'CDC Go' (recurrent parent) and 'CDC Alsask'. The resulting F1 grown in a growth chamber was selected for the presence of Lr22a, a molecular marker for the adult plant leaf rust resistance gene. From 2011 to 2012, the F2 to F4 generations were bulked and advanced in Saskatoon or a contra nursery in New Zealand. In 2013 and 2014, the F5 and F6 generations, respectively, were grown as hill plots in Saskatoon and evaluated for disease reactions in a leaf and stem rust irrigated nursery. A bulked F6 hill was used as a seed source for replicated yield testing in 2015. Replicated yield testing occurred using the designation W15423 in 2016 and 2017. W15423 was then advanced and further evaluated as PT5003 in the Parkland Cooperative Test from 2018 to 2020. Breeder seed was established at the F12 generation in 2020.

**Tests and Trials:** The comparative trials for 'CDC Envy' were conducted at the University of Saskatchewan, Crop Science Field Facility during the 2021 and 2022 growing seasons. There were 4 replications per variety arranged in an RCB design. Plots consisted of 5 rows, each row 3.6 metres long with an inter-row spacing of 0.24 metres. Measured characteristics were based on 20 measurements per variety per year, except for kernel weight which was based on 4 measurements per variety per year. Mean differences were significant at the 5% probability level based on LSD values.

Comparison table for 'CDC Envy'

	'CDC Envy'	'AAC Starbuck'*	'CDC Bradwell'*	'CDC Go'*
<i>Flag leaf length (cm)</i>				
mean 2021 (LSD=1.5)	14.6	18.3	17.6	16.2
std. deviation 2021	2.8	2.1	1.9	2.4
mean 2022 (LSD=1.3)	20.7	20.9	24.2	17.6
std. deviation 2022	2.4	2.1	1.9	1.6
<i>Flag leaf width (mm)</i>				
mean 2021 (LSD=0.8)	12.2	15.3	15.3	13.5
std. deviation 2021	1.4	1.1	1.1	1.2
mean 2022 (LSD=0.6)	12.2	15.0	15.4	12.5
std. deviation 2022	1.2	0.9	0.8	0.8
<i>Days to maturity (number of days from planting to maturity)</i>				
mean 2021	89.0	89.0	91.0	89.0
mean 2022	93.8	98.3	98.3	94.5
<i>Spike length (excluding awns) (cm)</i>				
mean 2021 (LSD=0.4)	8.5	8.7	8.0	8.5
std. deviation 2021	0.4	0.6	0.6	0.7
mean 2022 (LSD=0.2)	8.1	8.2	7.8	7.9
std. deviation 2022	0.3	0.4	0.4	0.4
<i>Thousand kernel weight (grams per 1000 kernels) (g)</i>				
mean 2021 (LSD=1.3)	34.7	37.6	34.0	40.4
std. deviation 2021	1.1	0.8	0.9	0.3
mean 2022 (LSD=0.9)	36.2	38.7	35.4	40.2
std. deviation 2022	0.8	0.7	0.2	0.5

\*reference varieties



Wheat: 'CDC Envy' (left) reference varieties 'CDC Bradwell' (centre left), 'AAC Starbuck' (centre right) and 'CDC Go' (right)

**Proposed denomination:** 'CDC Imbue CLPlus'  
**Application number:** 21-10478  
**Application date:** 2021/04/28  
**Applicant:** University of Saskatchewan, Saskatoon, Saskatchewan  
**Breeder:** Pierre Hucl, University of Saskatchewan, Saskatoon, Saskatchewan

**Varieties used for comparison:** 'CDC Abound', 'CDC Landmark' and 'AAC Brandon'



**Summary:** *At booting, 'CDC Imbue CLPlus' has a medium to very high frequency of plants with recurved flag leaves whereas 'CDC Abound' has an absent or very low to low frequency of plants with recurved flag leaves. The flag leaf auricles of 'CDC Imbue CLPlus' have an absent or very weak to weak intensity of anthocyanin colouration whereas the flag leaf auricles of 'CDC Abound' have a medium intensity of anthocyanin colouration. The flag leaf of 'CDC Imbue CLPlus' is longer than those of 'CDC Abound' and 'CDC Landmark' and it is wider than that of 'CDC Landmark'. At heading, the glaucosity on the spike of 'CDC Imbue CLPlus' is of a strong to very strong degree whereas the glaucosity on the spike is absent or of a very weak to weak degree for 'CDC Landmark', of a weak degree for 'CDC Abound' and a weak to medium degree for 'AAC Brandon'. The glaucosity on the culm of 'CDC Imbue CLPlus' is of a strong to very strong degree whereas the glaucosity on the culm of 'CDC Abound' and 'CDC Landmark' is of a medium to strong degree and of a weak degree for 'AAC Brandon'. At maturity, the hairiness of the convex surface of the apical rachis segment for 'CDC Imbue CLPlus' is medium to dense whereas it is absent or very sparse for 'CDC Landmark'. The lower glume shoulder of 'CDC Imbue CLPlus' is straight whereas it is strongly elevated with a second point present for 'CDC Landmark' and it is elevated to strongly elevated with a second point present for 'AAC Brandon'.*

**Description:**

**PLANT:** spring type, common wheat, erect growth habit at 5 to 9 tiller stage, medium to very high frequency of plants with recurved flag leaves, heads early to mid-season

**SEEDLING (4-leaf stage):** absent or very weak to weak intensity of anthocyanin colouration of coleoptile, glabrous sheath and blade of lower leaves

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

**CULM:** strong to very strong glaucosity, curved neck

**STRAW (at maturity):** thin to medium width pith in cross-section, no anthocyanin colouration

**SPIKE:** strong to very strong glaucosity at heading, tapering shape in profile, medium density, yellow at maturity, erect attitude, medium to dense hairiness of convex surface of apical rachis segment

**AWNS:** present, shorter than or equal to spike length, white at maturity

**LOWER GLUME:** medium length and width, glabrous, medium extent of internal hairs

**LOWER GLUME SHOULDER:** medium width, straight

**LOWER GLUME BEAK:** long, slightly to moderately curved

**LOWEST LEMMA:** straight beak

**KERNEL:** hard red type, medium red, medium size, medium length and width, ovate shape, rounded cheek shape, medium length brush hairs, crease of medium width and depth

**GERM:** medium sized

**Origin and Breeding:** 'CDC Imbue CLPlus' (experimental designation BW5062) originated from a controlled cross conducted in a greenhouse in Saskatoon, Saskatchewan between the lines BW431 and IR08103 in 2010. From the winter of 2010 to 2012, the F1 to F4 generations were bulked and advanced in a contra nursery in New Zealand or in Saskatoon, Saskatchewan. In 2013 and 2014, the F5 and F6 generations, respectively, were grown as hill plots and were evaluated for plant height and disease reactions in a leaf and stem rust irrigated nursery. A bulked F6 hill was used as a seed source for unreplicated yield testing in 2015. Replicated yield testing occurred in 2016 and 2017. The line designated as BW5062 was further evaluated in the Western Bread Wheat C Cooperative Test from 2018 to 2020. Breeder seed was established at the F12 generation in 2020.

**Tests and Trials:** The comparative trials for 'CDC Imbue CLPlus' were conducted at the University of Saskatchewan, Crop Science Field Facility during the 2021 and 2022 growing seasons. There were 4 replications per variety arranged in an RCB design. Plots consisted of 5 rows, each row 3.6 metres long with an inter-row spacing of 0.24 metres. Measured characteristics were based on 20 measurements per variety per year, except for kernel weight which was based on 4 measurements per variety per year. Mean differences were significant at the 5% probability level based on LSD values.

Comparison table for 'CDC Imbue CLPlus'

	'CDC Imbue CLPlus'	'CDC Abound**'	'CDC Landmark**'	'AAC Brandon**'
<i>Flag leaf length (cm)</i>				
mean 2021 (LSD=1.3)	17.3	16.0	14.1	18.0
std. deviation 2021	2.1	1.9	2.1	1.9
mean 2022 (LSD=1.1)	20.0	16.9	18.0	25.0
std. deviation 2022	1.9	1.5	1.9	1.7
<i>Flag leaf width (mm)</i>				
mean 2021 (LSD=0.7)	13.4	15.1	12.3	13.0
std. deviation 2021	1.1	1.2	1.3	1.1
mean 2022 (LSD=0.6)	14.2	14.2	12.9	13.9
std. deviation 2022	0.8	1.0	0.9	0.9
<i>Thousand kernel weight (grams per 1000 kernels) (g)</i>				
mean 2021 (LSD=0.9)	35.4	37.8	36.7	36.1
std. deviation 2021	0.30	0.39	0.77	0.66
mean 2022 (LSD=1.5)	35.5	39.6	40.2	36.0
std. deviation 2022	0.98	0.30	1.43	0.86

\*reference varieties



Wheat: 'CDC Imbue CLPlus' (left) reference varieties 'CDC Abound' (centre left), 'CDC Landmark' (centre right) and 'AAC Brandon' (right)

**Proposed denomination:** 'Evora'  
**Application number:** 21-10738  
**Application date:** 2021/10/29  
**Applicant:** Céréla inc., St-Hugues, Quebec  
**Breeder:** Annie Archambault, Céréla inc., St-Hugues, Quebec

**Varieties used for comparison:** 'Maida', 'Atys' and 'Topaze'

**Summary:** At booting, 'Evora' has a high frequency of plants with recurved flag leaves while 'Maida' and 'Atys' have a low to medium frequency of plants with recurved flag leaves. The flag leaf auricles of 'Evora' have anthocyanin colouration that ranges between a medium to strong and strong intensity while the auricles of 'Maida' have an absent or very low intensity of anthocyanin colouration and those of 'Atys' range between a low to medium and medium intensity of anthocyanin colouration. The flag leaf of 'Evora' is longer than the flag leaves of 'Maida' and 'Topaze' and wider than those of 'Maida' and 'Atys'.

The plants of 'Evora' head later than the plants of 'Maida' and 'Atys'. At heading, the spike, excluding the awns, of 'Evora' is longer than those of the reference varieties. At maturity, the spike of 'Evora' has an erect to inclined attitude while the spike of 'Maida' has a nodding attitude. The culm neck of 'Evora' is straight while that of 'Topaze' is curved. The lower glume beak of 'Evora' is long while that of 'Maida' is medium in length. The lower glume beak of 'Evora' is very slightly to slightly curved while that of 'Topaze' is moderately curved. The 1000 kernel weight of 'Evora' is greater than that of 'Maida' and 'Topaze'.

**Description:**

PLANT: common wheat, spring type, semi-erect growth habit at 5 to 9 tiller stage, high frequency of plants with recurved flag leaves, heads emerge late in the season

SEEDLING (4 LEAF STAGE): absent or very weak to weak anthocyanin colouration of coleoptile, glabrous sheath and blade of lower leaves

FLAG LEAF: ranging between medium to strong and strong intensity of anthocyanin colouration on auricles, medium to strong glaucosity of sheath

CULM NECK: straight

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

SPIKE: weak to medium glaucosity at heading, fusiform shape in profile, ranging between a medium density and medium to dense, white at maturity, erect to inclined attitude, sparse to medium hairiness of convex surface of apical rachis segment

AWNS: equal to spike length, white at maturity

LOWER GLUME: narrow to medium width, long, glabrous, absent or very sparse internal hair

LOWER GLUME SHOULDER: narrow to medium width, slightly sloping to elevated shape

LOWER GLUME BEAK: long, very slightly to slightly curved shape

KERNEL: hard red type, medium red

**Origin and Breeding:** 'Evora' (experimental designations CFB2101, CLB08-067,011 and CIM21450) was developed using a pedigree method of breeding. 'Evora' originated from a cross between the line GS-0-EM484 and the variety 'AAC Scotia' conducted in St-Hyacinthe, Quebec in 2007. The variety was advanced from the F1 to F5 generation as a mass population with selections made in each year based on grain density. One F6 line was designated as CLB08-067,011 in 2014. The line was further advanced from 2014 to 2020 based on grain yield, volumetric weight, thousand kernel weight, agronomic characteristics and disease tolerance. Breeder seed was established at the F10 generation in 2019.

**Tests and Trials:** The comparative trials for 'Evora' were conducted at the Céréla inc. testing site in St. Hugues, Quebec during the 2021 and 2022 growing seasons. There were 2 replicates arranged in an RCB design. Each plot consisted of 5 rows, each 5.0 metres long with an inter-row spacing of 19 cm. The planting density resulted in 3825 plants per variety per year. Measured characteristics were based on 20 measurements per variety per year. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

**Comparison table for 'Evora'**

	'Evora'	'Maida'*	'Atys'*	'Topaze'*
<i>Flag leaf length (cm)</i>				
mean (2021)	17.1	13.1	16.3	13.6
std. deviation (2021)	3.62	2.29	3.07	2.55
mean (2022)	27.8	20.8	24.2	21.6
std. deviation (2022)	2.30	3.03	3.99	3.28
<i>Flag leaf width (mm)</i>				
mean (2021)	11.9	9.7	9.3	10.6
std. deviation (2021)	1.37	3.41	0.97	1.5
mean (2022)	10.9	9.3	7.8	9.8
std. deviation (2022)	2.49	1.83	2.55	3.02
<i>Days to heading (number of days from planting to when 50% of heads fully emerged from boot)</i>				
mean (2021)	55	53	52	57
mean (2022)	65	62	58	63

*Spike length (excluding awns) (cm)*

mean (2021)	10.3	8.6	9.0	9.4
std. deviation (2021)	0.92	0.85	1.10	0.70
mean (2022)	9.6	9.0	9.0	9.0
std. deviation (2022)	0.69	0.94	0.83	0.76

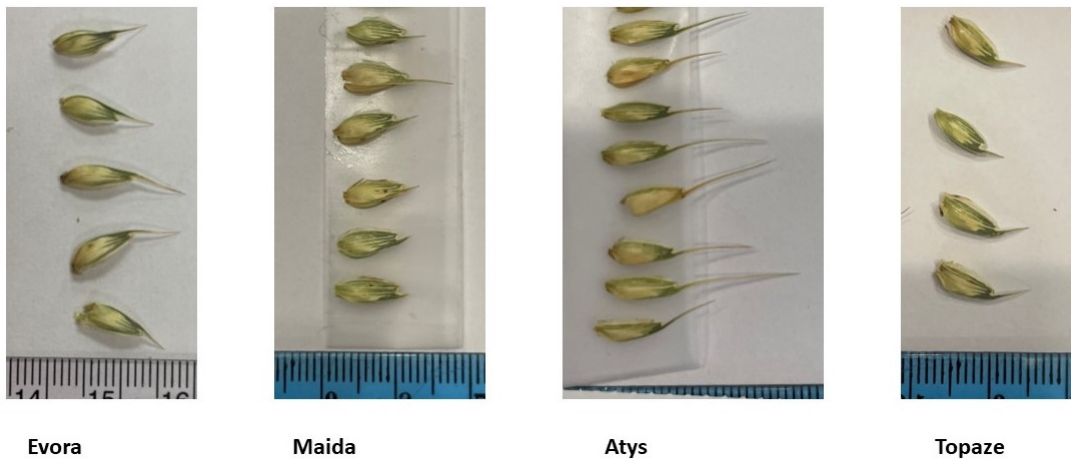
*Kernel weight (grams per 1000 kernels) (g)*

mean (2021)	46.1	45.0	44.0	40.8
std. deviation (2021)	0.5	0.7	0.6	0.7
mean (2022)	32.3	31.4	34.9	30.8
std. deviation (2022)	0.5	0.5	0.4	0.4

\*reference varieties



Wheat: 'Evora' (left) with reference varieties 'Maida' (centre left), 'Atys' (centre right) and 'Topaze' (right)



Wheat: 'Evora' (left) with reference varieties 'Maida' (centre left), 'Atys' (centre right) and 'Topaze' (right)