



**SAVE this form to your desktop or computer.
Enter required information and upon completion, return to nvrb@aosca.org
by clicking on this link and attaching the application.**

**ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES
GRASS VARIETY REVIEW BOARD
APPLICATION – PART B – 2019 - SAMPLE**

This application – Part B – must be submitted along with Part A
(please remember, you may submit ONE Part A application for multiple Part B applications)

**Please email the completed application to:
nvrb@aosca.org**

All information provided on this application shall be maintained in complete confidence by the Association Official Seed Certifying Agencies (AOSCA), its staff, and individual members of the AOSCA Variety Review Board. Each member of the Review Board will be required to sign a statement to this effect prior to receiving any applications for review. Upon completion of the review process, reviewers will be required to destroy or delete all applications in their possession. One copy of each application will be maintained on file in the AOSCA office.

Applicant: Certified Grass Breeders, LLC (CGB)

Kind (Common): Tall fescue Genus species: *Festuca arundinacea*

Variety Name: Certgrass Experimental Designation: CGB200

Primary use: Forage Turf Other (specify) _____

**IT IS THE APPLICANT'S RESPONSIBILITY TO SUBMIT AN AMENDMENT APPLICATION FOR
NAME CHANGE WHEN THE PERMANENT VARIETY NAME HAS BEEN SELECTED.**

I. Breeding History of Certgrass Tall Fescue

Sources of Germplasm Used to Breed "Certgrass" Tall Fescue

The germplasm used to develop "Certgrass" was selected 100% from the Certified Grass Breeder variety Bestgrass.

Breeding chronology

2008 – In the spring of 2008, sixty-four exceptionally dark green plants were selected out of the nursery used to produce breeder seed of the variety Bestgrass at CGB's Research Station near Seedville, Oregon. These plants were transplanted to an isolated crossing block and allowed to inter-pollinate. Following seed ripening, the plants in the cross were harvested individually. In the fall of 2008 seed from the 59 plants in the cross that produced 50 or more grams of seed was used to plant half-sib rows at CGB's Research Station. A portion of the seed was also used to plant progeny turf plots at CGB's Research Station.

2010 – In the spring 49 dark green, net blotch resistant plants were selected from 15 of the 59 families that showed superior turf quality in the 2008 fall-sown progeny test. These plants were crossed in an isolated block and seed was harvested from each plant separately. In the fall of 2010 seed from the 40 plants with the highest seed yield was planted in progeny turf plots at CGB's Seedville Research Station. A portion of the seed from these plants was also used to plant a replicated family nursery at the Research Station. This nursery designated Certgrass consisted of three replications of 30 plants of each family for a total of 3,600 plants.

2011 – Prior to flowering in the summer of 2011 nineteen of the families in the “Certgrass” nursery were cut back due to poor performance in progeny turf plots. In the 21 families that remained in the nursery approximately 25% of the plants that had had lighter green color and/or high susceptibility to leaf spot were removed. The remaining plants were allowed to inter-pollinate and following seed ripening were bulk harvested. This seed was the first breeder seed of the variety.

II. Descriptive Information

Table 1 gives heading data for Certgrass. Plant height, flag leaf height, length and width and panicle length data are found in attached Table 2.

III. Primary Use and Evidence of Performance and Adaptation

Certgrass will primarily be used for lawn turf. The variety is adapted to western Oregon and the tall fescue-growing regions represented by southern Illinois and central North Carolina

A. Forage Performance: N/A

B. Turf Performance:

1. Certgrass turf quality and net blotch data from a trial grown near Seedville, Oregon are found in Table 3.
2. Genetic color data from Illinois, North Carolina and Pennsylvania are found in Table 4. (These data show Certgrass to be darker than Bestgrass.)
3. Leaf texture data from Illinois, North Carolina and Pennsylvania are found in Table 5.

C. Other Primary Non-turf Use Performance: N/A

IV. Stock Seed Maintenance and Limitation of Generations

Breeder seed of Certgrass was first produced in 2011. Breeder seed is maintained by Certified Grass Breeders, LLC, Seedville, Oregon. Enough breeder seed was produced in 2011 and 2012 to last the anticipated life of the variety. Only the Foundation and Certified classes are permitted. Foundation stands may only be planted from breeder seed. Foundation class production fields established from breeder seed can be harvested for Foundation seed for a maximum of two years followed by Certified class seed for four years. Certified class production fields established from Foundation seed will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.

Table 1. Heading dates (expressed as **Calendar Date** or as **Day of Year** and **not** as a “Julian date” – example: March 15 or 73) of tall fescue varieties grown near Seedville, Oregon and a site southwest of Grasstown, Oregon in 2012.

The Seedville test was grown on Concord silt loam with a pH of 5.0. At the Grasstown site the plants were grown on Woodburn silt loam with a pH of 5.6. Both trials consisted of three replications of each variety with 10 plants per replication. Trials were conducted using completely random designs. Plant spacings were 1.5 feet within rows and 3 feet between rows.

VARIETY	Seedville	Grasstown	Average
Tomahawk	112	110	111
Bestgrass	115	111	113
Houndog 5	116	114	115
CERTGRASS	116	114	115
Olympic Gold	121	117	119
Watchdog	123	119	121
Rembrandt	123	119	121
Dynasty	126	120	123
Masterpiece	127	121	124
LSD @ 0.05	2.0	2.0	
C.V. - %	4.6	5.1	

Table 2. Morphological characteristics of tall fescue varieties grown near Seedville, Oregon and a site southwest of Grasstown, Oregon in 2012. The Seedville test was grown on Concord silt loam with a pH of 5.0. At the Grasstown Site, the plants were grown on Woodburn silt loam with a pH of 5.6. Both trials consisted of three replications of each variety with 10 plants per replication. Trials were conducted using completely random designs. Plant spacings were 1.5 feet within rows and 3 feet between rows.

VARIETY	Plant Height (cm)			Flag Leaf Height (cm)			Flag Leaf Length (cm)		
	Seedville	Grasstown	Average	Seedville	Grasstown	Average	Seedville	Grasstown	Average
Rembrandt	98.1	92.0	95.1	46.3	38.1	42.2	18.7	19.5	19.1
Masterpiece	99.6	83.0	91.3	40.9	29.4	35.1	14.1	10.6	12.3
Houndog 5	97.6	77.7	87.6	43.5	33.1	38.3	14.1	12.6	13.3
Watchdog	93.4	80.6	87.0	38.9	30.1	34.5	13.2	14.7	14.0
Olympic Gold	81.9	77.7	79.8	37.5	37.0	37.3	12.8	15.1	13.9
Dynasty	90.3	65.4	77.9	35.0	32.3	33.6	14.5	10.4	12.5
Bestgrass	79.4	61.8	70.6	32.7	34.0	33.4	11.0	10.5	10.7
CERTGRASS	80.9	60.4	70.6	33.2	24.7	29.0	10.8	8.9	9.8
Tomahawk	75.6	54.0	64.8	28.2	22.1	25.2	8.7	6.2	7.5
LSD @ 0.05	5.6	3.6		5.2	4.1		1.9	2.3	
CV - %	7.1	6.9		6.3	6.5		5.2	6.1	

VARIETY	Flag Leaf Width (mm)			Panicle Length (cm)		
	Seedville	Grasstown	Average	Seedville	Grasstown	Average
Rembrandt	8.0	6.1	7.0	23.2	17.1	20.1
Masterpiece	7.2	5.4	6.3	21.6	19.8	20.7
Houndog 5	6.7	4.9	5.8	27.0	25.7	26.3
Watchdog	5.7	5.4	5.5	20.6	16.8	18.7
Olympic Gold	7.8	5.1	6.4	15.0	12.3	13.6
Dynasty	7.2	5.4	6.3	20.3	20.3	20.3
Bestgrass	5.8	5.0	5.4	18.3	15.0	16.7
CERTGRASS	5.6	4.6	5.1	18.5	17.2	17.8
Tomahawk	5.4	3.1	4.2	17.6	16.3	16.9
LSD @ 0.05	0.8	0.9		2.5	2.8	

Table 3. Turf characteristics of tall fescue cultivars grown in full sun near Seedville, Oregon. Trial was sown in September 2011. Cutting height was 1.25 inches. The trial received 6 pounds of actual Nitrogen per year and was irrigated to prevent stress. Total entries in trial=40.

NAME	2012	2013	2014	2012	2013	2014
	Turf Quality 1-9; 9=Ideal Turf	Turf Quality 1-9; 9=Ideal Turf	Turf Quality 1-9; 9=Ideal Turf	Net Blotch 1-9; 9=No Disease	Net Blotch 1-9; 9=No Disease	Net Blotch 1-9; 9=No Disease
CERTGRASS	7.6	7.1	7.3	6.0	6.0	6.0
Bestgrass	7.1	6.8	6.9	6.0	5.3	5.7
Rembrandt	5.9	5.5	5.7	5.3	5.3	5.3
Masterpiece	5.6	5.6	5.6	4.0	3.7	3.8
Watchdog	5.6	5.4	5.5	4.3	4.3	4.3
Olympic Gold	5.5	5.6	5.6	5.0	5.3	5.2
Dynasty	5.2	5.1	5.2	4.3	3.3	3.8
Houndog 5	5.1	5.2	5.2	4.3	4.3	4.3
Tomahawk	5.0	4.7	4.9	5.7	3.3	4.5
GRAND MEAN	5.6	5.2	5.4	4.7	4.2	4.5
Highest Rated Entry	7.6	7.1	7.3	6.7	6.3	6.3
Lowest Rated Entry	2.3	1.4	1.8	2.0	2.0	2.2
LSD @ 0.05	0.5	0.7	0.5	1.5	1.0	0.9
CV - %	9.0	6.5	7.0	8.6	9.7	9.1

Table 4. 2013 genetic color ratings of tall fescue cultivars in the 2011 National Turfgrass Evaluation Program Tall Fescue Tests at Carbondale, Illinois (IL2), Raleigh, North Carolina (NC1) and University Park, Pennsylvania (PA1). Plots were rated on a 1-9; 9= dark green scale. Total entries in trial = 160.

NAME	Location		
	IL2	NC1	PA1
CERTGRASS	8.7	7.3	8.7
BESTGRASS	6.7	5.3	6.3
COYOTE	5.7	6.0	6.7
PLANTATION	5.3	6.3	6.3
REMBRANDT	5.3	4.7	5.7
MASTERPIECE	4.3	6.7	5.3
OLYMPIC GOLD	4.3	6.3	2.7
BONSAI	4.3	6.0	5.3
KY-31 E+	1.0	6.0	1.3
GRAND MEAN	5.9	6.2	6.3
Highest Rated Entry	9.0	7.3	8.7
Lowest Rated Entry	1.0	4.7	1.3
C.V. (%)	13.9	14.7	16.2
LSD @ 0.05	1.3	1.5	1.6

Table 5. 2013 leaf texture ratings of tall fescue cultivars in the 2011 National Turfgrass Evaluation Program Tall Fescue Tests at Carbondale, Illinois (IL2), Raleigh, North Carolina (NC1) and University Park, Pennsylvania (PA1). Plots were rated on a 1-9; 9=very fine scale. Total entries in trial = 160.

NAME	IL2	NC1	PA1
BESTGRASS	6.3	6.3	5.7
BONSAI	5.7	5.7	5.0
CERTGRASS	5.3	5.7	5.3
PLANTATION	5.3	5.7	5.7
MASTERPIECE	5.0	6.0	5.7
REMBRANDT	4.0	5.0	5.7
COYOTE	4.0	5.0	5.7
OLYMPIC GOLD	3.7	5.3	4.7
KY-31 E+	1.0	5.0	2.0
GRAND MEAN	5.5	5.8	5.4
Highest Rated Entry	8.7	7.3	7.3
Lowest Rated Entry	1.0	4.3	2.0
C.V. (%)	22.1	15.6	12.5
LSD @ 0.05	2.0	1.5	1.1

Grass

Certgrass CGB200 (Exp)

1. **Variety name:** Certgrass Kind: Tall fescue
 Genus: Festuca Species: arundinacea
 Experimental designation (s): CGB200
 Date submitted: January 2014

2. Certgrass was developed by Certified Grass Breeders, LLC beginning with individual plant selections from a breeder seed nursery of the CGB variety Bestgrass in western Oregon. Bestgrass plants displaying particularly dark green color were initially transplanted to a crossing block. Subsequently, three cycles of seed selections for high seed yield, net blotch resistance, turf quality and dark green color were utilized to form a crossing block that produced the first breeder seed in 2011.
3. Certgrass was tested for turf use in two locations in western Oregon and in the NTEP trials in southern Illinois, central North Carolina and central Pennsylvania. It has shown adaptation to those climatic conditions and will be made available for sale in climates represented by those localities.

4. Growth & Morphology	Heading Date – (Day of year)		Plant Height (cm)		Flag Leaf Length (cm)	
	2012		2012		2012	
Traits	Seedville, OR	Grasstown, OR	Seedville, OR	Grasstown, OR	Seedville, OR	Grasstown, OR
Certgrass	116	114	80.9	60.4	10.8	8.9
Bestgrass	115	111	79.4	61.6	11.0	10.5
Houndog 5	116	114	97.6	77.7		
Rembrandt	123	119			18.7	19.5
LSD (.05)	2.0	2.0	5.6	3.6	1.9	2.3
C.V. - %	4.6	5.1	6.3	6.5	5.2	6.1

Data collected from: Spaced single plants X Plants in rows/solid seeding _____

Variants to be expected and frequency: None have been observed or documented

5. Turf Use	Turf Quality (1-9)		Net Blotch (1-9)		Genetic Color (1-9)		Leaf texture (1-9)	
	Seedville, OR		Seedville, OR		2013		2013	
	2012	2012	2012	2013	A	B	A	B
Certgrass	7.6	7.6	6.0	6.0	8.7	7.3	8.7	7.3
Bestgrass	7.1	7.1	6.0	5.3	6.7	5.3	6.7	5.3
Masterpiece	5.6	5.6	4.0	3.7				
Dynasty			4.3	3.3				
Rembrandt					5.3	5.7	5.3	4.7
LSD (.05)	0.5	0.5	1.5	1.0	1.3	1.5	1.3	1.5
CV - %	6.5	9.0	8.6	9.7	13.9	16.2	13.9	14.7

•Scale used to report traits (if appropriate): 1-9 with 9 ideal quality or no disease or darkest green or finest texture

•Insert additional information for use by inspectors (if any): None

**If necessary, identify locations in line b) by the following key A: Carbondale, IL B: Raleigh, NC

6. Certified Grass Breeders, LLC will maintain seedstocks of Certgrass. Sufficient breeder seed was produced in 2011 and 2012 to last the anticipated life of the variety. Only the Foundation and Certified classes are recognized. Breeder seed plantings may produce Foundation seed for a maximum of two years, followed by a maximum of four years of Certified seed. Foundation seed plantings may produce Certified seed for five years. Exceptions may be granted by CBG. CGB associates will be licensed to produce and sell Certgrass.
7. Certified seed of CERTGRASS is anticipated to be available in the spring of 2016. PVP will be sought with the certification option that seed sold as the variety CERTGRASS must be a class of certified seed.