U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Orchardgrass (*Dactlis glomerata* L.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME

ADDRESS *(Street and No. or RD No., City, State, Zip Code and Country)*	FOR OFFICIAL USE ONLY
	PVPO NUMBER

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Fill unused columns with zeroes (e.g. [0][9][9] when number is [9][9]). In comparisons to Potomac (standard variety) be sure to strike out the comparative term which does not apply [e.g. (~~shorter~~) (longer)]; the value [0][0] should only be used to indicate that the varieties are equal. Characteristics described, including numerical measurements, should represent those that are TYPICAL for the variety. Measured data should be for SPACED PLANTS. Any recognized color fan, e.g., Royal Horticultural Color Chart, may be used to determine plant colors; designate system used: _____. Give locations of test area _____. Ranges of values are valuable and may be included with additional description elsewhere in the application.

NOTE: FOR SINGLE PLANT DATA A MINIMUM OF 100 PLANTS IS SUGGESTED.

1. PLOIDY:

[ ] 1 = Diploid (2N = 14) 2 = Tetraploid (2N=28) 3 = Other (Specify) _____

2. ADAPTATION (for forage or pasture):

[ ] 1 = Northeast 2 = East Central 3 = Southeast 4 = North Central 5 = SouthCentral 6 = Pacific Northwest

7 = Southwest 8 = Other (Specify) _____

3. WINTER HARDINESS:

[ ] 3 = Tender (Hallmark) 5 = Intermediate (Pennlate) 7 = Hardy (Chinook)

4. MATURITY:

[ ] Season: 1 = Very early (Boone) 2 = Early (Sterling) 3 = Midseason (Pennmead) 4 = Late (Pennlate) 5 = Very late (Masshardy)

Flowering date (50% bloom) compared to Potomac..... [ ][ ] Days (Earlier) (Later)

Beginning of spring growth compared to Potomac ..... [ ][ ] Days (Earlier) (Later)

5. PLANT HEIGHT (From Soil Level to Top of Panicle):

[ ] cm tall: Compared to Potomac..... [ ][ ] cm (Shorter) (Taller)

6. PLANT GROWTH TYPE (at maturity):

[ ] Type: 1= Prostrate (S-143) 2 = Intermediate (Pennmead) 3 = Erect (Boone)

Plant Width: Diameter across 2nd year plant (to tips of opposite panicles). Use same or comparable plants for plant height.

[ ][ ][ ] cm plant width; compared to Potomac..... [ ][ ] cm (Narrower) (Wider)

[ ] Early leafiness: 1 = Panicle tillers exserted before barren tillers 2 = Panicle and barren tillers exserted together

[ ][ ][ ] No. panicle tillers at maturity

[ ][ ][ ] No. barren tillers at maturity

Leaf evaluation data: (Use same or comparable plants for both characters)

[ ][ ] cm length of 5th internode below panicle (usually 1st noncontracted internode)

[ ][ ] cm total straw length (to lowest branch of panicle)

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7. LEAF:

[ ] Culm leaf attitude (at early root): 1 = Erect (Orbit) 2 = Drooping (Potomac)

[ ] Leaf color:: 1 = Yellow green (Latar) 2 = Green (Sterling) 3 = Dark green (Potomac) 4 = Blue green (Sumas)

Leaf hariness (% plants with each surface):

[ ][ ][ ] % Glabrous [ ][ ][ ] % Slightly pubescent [ ][ ][ ] % Pubescent

[ ][ ] mm width (first leaf blade below flag leaf): Compared to Potomac..... [ ][ ] mm (Narrower) (Wider)

[ ][ ][ ] mm length (first leaf blade below flag leaf); Compared to Potomac ..... [ ][ ] mm (Shorter) (Longer)

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8. PANICLE (From lowest panicle branch to tip of rachis):

[ ][ ] cm panicle length; compared to Potomac..... [ ][ ] cm (Shorter) (Longer)

[ ][ ] No. primary branches [ ][ ] No. spikelets of lowest glomerule (spikelet cluster)

[ ] Cast (secondary color) of panicle: 1 = Yellowish 2 = Brown 3 = Purple 4 = Other (Specify) _____

Panicle Type: In the table below give percentage of plants with each panicle type. Panicle type is determined by the angles from the veriticle formed by (A) the Rachis Tip and (B) the Lowest Branch.

	(A) Angle of rachis tip (from verticle)		
	0° (Erect)	< 45°	> 45°
(< 30°)			
(B) Angle of lowest branch (from verticle) (30° - 90°)			
(> 90°)			

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9. LEMMA (First spikelet of lowest cluster):

Lemma hairness (% of plants with each surface):

[ ][ ][ ] % Glabrous [ ][ ][ ] % Pubescent

Lemma keel hariness (% plants with each surface):

[ ][ ][ ] % Glabrous [ ][ ][ ] % Ciliate

[ ][ ][ ] % Plants with notched lemma apex [ ].[ ][ ] mm depth apical notch

[ ][ ][ ] % Plants with lemma awns [ ].[ ][ ] mm typical awn length

10. SEED:

☐.☐☐ mm width; compared to Potomac ..... ☐☐ mm (Narrower) (Wider)

☐.☐☐ mm length; compared to Potomac ..... ☐☐ mm (Shorter) (Longer)

☐☐☐ mg per 1,000 pure seed; compared to Potomac..... ☐☐ mg (Lighter) (Heavier)

11. DISEASE AND INSECT RESISTANCE (Rate resistance 0 – 9, where 0 = Not Tested, 1 = 100% Susceptible, and 9= 100% Resistant):

☐ Powdery mildew (*Erysiphe graminis*)

☐ Anthracnose (*Colletotrichum graminicola*)

☐ Stripe smut (*Ustilago striiformis*)

☐ Other (Specify) _____

Rust and Leaf Spot: Specify as completely as possible including species and races where known. If generalized resistance or susceptibility is claimed (first box), include or append explanation. (0 = Not Tested, 1 – 9 = 100 Susceptible to 100% Resistant, respectively.

	Comments
☐ Rust	
☐ Stem rust (*Puccinia graminis*)	
☐ Crown rust (*P. coronata*)	_____
☐ Leaf rust (*P. rubigo-vera*)	_____
☐ Stripe rust (*P. glumarum*)	_____
☐ Leaf spot	_____
☐ Leaf streak (*Scolecotrichum graminis*)	_____
☐ Leaf blotch (*Stagonospora arenaria*)	_____
☐ Purple leaf spot (*Stagonospora maculata*)	_____
☐ Scald (*Rhynochosporium orthosporium*)	_____
☐ Leaf spot (*Ascochyta graminicola*)	_____
☐ Leaf spot (*Mastigosporium rubicosum*)	_____
☐ Leaf spot (*Helminthosporium* spp.)	_____
☐ Leaf spot (*Septoria* spp.)	_____
☐ Other	_____

12. INDICATE THE VARIETY THAT MOST CLOSELY RESEMBLES THE APPLICATION VARIETY FOR THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Leafiness		Seedling vigor	
Winter hardiness		Seed size	
Frost resistance		% Lignin	
Summer dormancy		Persistence	
Heat tolerance		Tillering	

REFERENCES:

R. G. Stapledon, Cocksfoot Grass (*Dactylis glomerata* L.) Ecotypes in Relation to the Biotic Factors. Journal of Ecology 16:71 – 104 1928.

P. F. Parker, Genetic Variation in Diploid *Dactylis* in Panicle, Spikelet and Floret Characters. Heredity 24: 383 – 405 1969.

COMMENTS: