**OBJECTIVE DESCRIPTION OF VARIETY**  
**SMOOTH BROMEGRASS (Bromus inermis Leyss.)**

<table>
<thead>
<tr>
<th>NAME OF APPLICANT (S)</th>
<th>TEMORARY OR EXPERIMENTAL DESIGNATION</th>
<th>VARIETY NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)</th>
<th>FOR OFFICIAL USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PVPO NUMBER</td>
</tr>
</tbody>
</table>

Place the appropriate number that describes the varietal character of this variety in the spaces below. Fill unused spaces with zeros (e.g., 0 0 9) when number is 99). In comparisons to standard varieties, the value 0 0 should only be used to indicate that the varieties are equal. Characteristics described, including numerical measurements, should represent those which are TYPICAL for the variety. See EXPLANATORY NOTES at the end of form for characters marked with an asterisk (*). Measured data should be for SPACED PLANTS. Any recognized color fan, e.g., National Bureau of Standards Circular 553 Supplement, may be used to determine plant colors; designate system used: ______________________________. Ranges of values may be included with additional description elsewhere in the application.

**NOTE:** For single plant data a minimum of 100 plants is suggested.

1. **STRAIN TYPE**

   _ 1 = Souther Type  2 = Intermediate  3 = Northern Type

2. **MATURITY**

   **Heading date** (50% of plants emerged from boot)…………………………………

   _ ___ Days Earlier Than  _____________ ___ Standard Variety

   _ ___ Days Later Than  _____________ ___ Standard Variety

   **Seed Ripening** (panicle browning)………………………………………………

   _ ___ Days Earlier Than  _____________ ___ Standard Variety

   _ ___ Days Later Than  _____________ ___ Standard Variety

3. **JUVENILE HABIT**

   _ 1 = Prostrate Rosette  2 = Erect Tillers
4. ADULT HABIT

___ Spread: 1 = Noncreep (Parkland)  2 = Spreading (Lincoln)

___ ___ CM Width (Diameter of 2nd year plant).................
   ___ ___ CM Narrower Than ................... ___ Standard Variety
   ___ ___ CM Wider Than ................... ___ Standard Variety

___ Attitude of Outer Culms: 1 = Prostrate (Rebound)  2 = Ascending (Achenbach)  3 = Erect (Saratoga)

Proportion of mature culm types* (STERILE vs. FERTILE CULMS): Enter the number of plants out of 100 (frequency) which show the indicate range of STERILE CULMS. Do not include immature culms.

<table>
<thead>
<tr>
<th>Application Variety</th>
<th>&gt;50% Sterile Culms</th>
<th>30-50% Sterile Culms</th>
<th>&lt;30% Sterile Culms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Variety</td>
<td>% Plants</td>
<td>% Plants</td>
<td>% Plants</td>
</tr>
</tbody>
</table>

5. STERILE CULMS*
(Same plants as FERTILE CULMS – at seed ripe stage)

___ ___ CM Height* (From soil to mean level of uppermost leaf tips) .................
   ___ ___ CM Shorter Than ................... ___ Standard Variety
   ___ ___ CM Taller Than ................... ___ Standard Variety

___ ___ CM Leaf Elevation* (Stem length from soil to lingules of uppermost leaves) .................
   ___ ___ CM Lower Than ................... ___ Standard Variety
   ___ ___ CM Higher Than ................... ___ Standard Variety

___ ___ Number of Leaves/Culm* (Between expanded internodes)

6. FERTILE CULMS*
(Same plants as STERILE CULMS – at seed ripe stage)

___ Diameter: 1 = Fine (Carlton)  2 = Medium (Lincoln)  3 = Coarse (Sac)

___ ___ CM Height* (From soil to mean level of panicle tips) .................
   ___ ___ CM Shorter Than ................... ___ Standard Variety
   ___ ___ CM Taller Than ................... ___ Standard Variety

___ ___ CM Length of Internode Below flag leaves .................
   ___ ___ CM Shorter Than ................... ___ Standard Variety
   ___ ___ CM Longer Than ................... ___ Standard Variety

Pubescence at Nodes: % Plants Glabrous % Plants Pubescent

___ ___ CM Leaf Elevation* (Stem length from soil to lingules of flag leaves) .................
   ___ ___ CM Lower Than ................... ___ Standard Variety
   ___ ___ CM Higher Than ................... ___ Standard Variety

7. LEAF
(Leaf below flag leaf – on FERTILE CULM at heading date)

___ Attitude: 1 = Drooping (Carlton)  2 = Ascending

___ Color: 1 = Light Green (Mandan 404)  2 = Medium Green (Saratoga)  3 = Dark Green (Achenbach)

___ Anthocyanin Formation: 1 = Absent  2 = Slight  3 = Strong

___ Waxy Bloom: 1 = Absent  2 = Slight  3 = Strong

Leaf Pubescence: (Indicate percentage of PLANTS with each type)

<table>
<thead>
<tr>
<th>% All Glabrous</th>
<th>% Only Lower Leaves Pubescent</th>
<th>% All Pubescent</th>
</tr>
</thead>
</table>
| ___ ___ MM Maximum Width .................
   ___ ___ MM Narrower Than ................... ___ Standard Variety
   ___ ___ MM Wider Than ................... ___ Standard Variety
8. PANICLE (At seed ripe stage)

___ Shape*: 1 = Drooping (Lancaster)  2 = Spreading (Lincoln)  3 = Ascending* ( )

___ Density: 1 = lax ( )  2 = Medium ( )  3 = Compact ( )

___ ___ CM Rachis Length (From basal panicle node to tip of terminal spikelet) ...........................................

___ ___ CM Shorter Than ...................................... ___ Standard Variety

___ ___ CM Longer Than ...................................... ___ Standard Variety

9. SEED (Lemma of freshly harvested mature seed)

___ Color: 1 = Green (Southland / Achenbach)  2 = Pale Purple (Carlton)  3 = Dark Purple (Manchar)

Lemma Pubescence: (Indicate percentage of each type):   ___ ___ % Glabrous   ___ ___ % Slightly Pubescent   ___ ___ % Strongly Pubescent

___ ___ ___ MM Lemma Length .................................

___ ___ CM Shorter Than ...................................... ___ Standard Variety

___ ___ CM Longer Than ...................................... ___ Standard Variety

Presence of Awns: (Small awnlets 2 – 4 mm in length. Indicate percentage of plants)

___ ___ ___ % Plants Totally Lacking Awns   ___ ___ ___ % Plants with Awns

10. DESEASES AND PESTS (0 = Not Tested   1 = Susceptible   2 = Resistant)

___ Brown Spot (Pyrenophora bromi)   ___ Chocolate Spot (Pseudomonas coronafaciens var. atropurpurea)

___ Leaf Spot (Selenophoma bromigena)   ___ Leaf Blotch (Stagonospora bromi)

___ Scald (Rhynchosporium Secalis)   ___ Powdery Mildew (Erysiphe graminis)

___ Ergot (Claviceps purpurea)   ___ Root Rot (Helminthosporium sorokinianum)

___ Root Rot (Pythium graminicola)   ___ Root Rot (Rhizoctonia solani)

___ Other (Specify) ______________________________   ___ Other (Specify) ______________________________

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

<table>
<thead>
<tr>
<th>Character</th>
<th>Variety</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Leafiness</td>
<td>Leaf Color</td>
<td>Spread</td>
<td>Tillering</td>
</tr>
<tr>
<td>Persistence</td>
<td>Winter Hardiness</td>
<td>Drought Tolerance</td>
<td>Summer Dormancy</td>
</tr>
<tr>
<td>Seed Yield</td>
<td>Regrowth</td>
<td></td>
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</tbody>
</table>

*EXPLANATORY NOTES

Mature culms are referred to as STERILE (non-panicle-bearing) and FERTILE (seed stalks) to differentiate from immature “vegetative” culms which cannot be so distinguished. Strain types differ as to PROPORTION OF MATURE CULM TYPES, ratio of height of culm types, and mean distance between leaves. Components of these traits are measured at SEED RIPENING (panicle browning) so that mature sterile culms can be identified. HEIGHT TO MEAN LEVEL OF UPPERMOST CULM TIPS defines the “horizon” naturally formed by the tips of the culms, and can be measured without disturbing the plant. Some traits are morphological components of performance characters: STERILE CULMS produce no seed and more leaves. PROPORTION OF MATURE CULM TYPES is an important genetic trait known to be affected by environmental extremes. Do not submit results known to be atypical. Data are most reliable when compared to a check variety. NUMBER OF LEAVES/CULM and LEAF ELEVATION together indicate the mean distance between leaves. LEAF ELEVATION indicates availability of leaf for harvest and general plant “leafiness”. In some cases individual plants exhibit a trait which is not known to be typical of any variety totally; e.g., ASCENDING PANICLE SHAPE in the variety ‘magna’. Some example varieties (in parentheses) may be obsolete; we welcome the suggestion of replacements from any reliable source.
**REFERENCE**


**OTHER**


**COMMENTS**