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

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
Rye (*Secale cereale* 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 spaces below. Place a zero in the first space (e.g. 0 9 or 0 9 9) when number is either 99 or less or 9 or less, respectively. Characteristics described, including numerical measurements should represent those that are typical for the variety. All questions need not be answered; however, the more complete the information given the more adequate the variety will be identified.

1. PLOIDY

___ 1 = Diploid (2n = 14) 2 = Tetraploid (2n = 28) 3 = Other (Specify) _____

2. ADAPTATION

___ 1 = North 2 = South

3. GROWTH HABIT

___ 1 = Spring 2 = Intermediate 3 = Winter

___ Photoperiod: 1 = Insensitive 2 = Sensitive

___ Juvenile Plant Growth: 1 = Erect 2 = Intermediate 3 = Prostrate

4. EAR EMERGENCE

___ Days Earlier Than	}	1 = Von Lochow	2 = Frontier	3 = Cougar
Emergence Same As		4 = Rymin	5 = Florida Black	6 = Weser
___ Days Later Than		7 = Gator		

5. MATURITY

___ 1 = Very Early 2 = Early 3 = Mid-Season 4 = Late 5 = Very Late

___ Days Earlier Than	}	1 = Von Lochow	2 = Frontier	3 = Cougar
Maturity Same As		4 = Rymin	5 = Florida Black	6 = Weser
___ Days Later Than		7 = Gator		

6. HEIGHT

_____ cm High (at Maturity).....	1 = Dwarf	2 = Semi-Dwarf	3 = Short
_____ cm Shorter Than	4 = Mid-Tall	5 = Tall	
Height Same As	1 = Von Lochow	2 = Frontier	3 = Cougar
_____ cm Taller Than	4 = Rymin	5 = Florida Black	6 = Weser
	7 = Gator		

7. STEM

_____ mm Stem Diameter (4 inches above ground) _____ Nodes: 1 = Solid 2 = Intermediate 3 = Hollow

_____ Neck Hairiness: 1 = Glabrous 2 = Slightly Hairy 3 = Moderately Hairy 4 = Densely Hairy

_____ Anthocyanin In Uppermost Node: 1 = Absent 2 = Present

_____ cm Internode Length (Between flag leaf and leaf below)

_____ More Tillers Than	}	1 = Von Lochow	2 = Weser	3 = Frontier
_____ Same Number of Tillers As		4 = Tetra Petkus		
_____ Fewer Tillers Than				

_____ Resistance to Lodging: 1 = Good (Seldom lodged) 2 = Fair (Often lodged) 3 = Poor (Usually lodged)

8. LEAVES

_____ cm Leaf Length (1st leaf below flag leaf) _____ mm Leaf Width (1st leaf below flag leaf)

_____ Flag Leaf: 1 = Not Twisted 2 = Twisted _____ No. Leaves Originating from Nodes Above Ground

_____ Waxy Bloom On Leaf (at boot): 1 = Absent 2 = Slightly Waxy 3 = Waxy

_____ Upper Leaf Surface (at boot): 1 = Glabrous 2 = Lightly Spinous 3 = Pubescent

_____ Leaf Color (at boot): 1 = Dark Green (Frontier, Weser) 2 = Light Green (Florida Black) 3 = Other (Specify) _____

_____ Main Stem Leaf Habit (during tillering): 1 = Upright 2 = Recurved 3 = Drooping

_____ Main Stem Leaf Habit (at boot): 1 = Upright 2 = Recurved 3 = Drooping

_____ Leaf Sheath (at boot): 1 = Glabrous 2 = Lightly Spinous 3 = Pubescent

_____ Anthocyanin in Auricles: 1 = Absent 2 = Present

9. HEAD

_____ Density: 1 = Lax (Frontier) 2 = Mid-Dense (Tetra Petkus) 3 = Dense (Cougar)

_____ Attitude: 1 = Erect 2 = Slightly Curved 3 = Inclined

_____ Shape: 1 = Fusiform (Tapering) 2 = Parallel 3 = Oblong 4 = Elliptical 5 = Clavate 6 = Other (Specify) _____

_____ Waxy Bloom: 1 = Absent 2 = Slightly Waxy 3 = Waxy

_____ Anthocyanin: 1 = Absent 2 = Present

_____ Resistance to Shattering: 1 = Good 2 = Fair 3 = Poor

_____ Head Length: 1 = Long 2 = Mid-Long to Long 3 = Mid-Long 4 = Short to Mid-Long 5 = Short

_____ cm Head Length (Excluding Awns) _____ cm Awn Length

_____ mm Head Width

_____ Anthocyanin in Awns: 1 = Absent 2 = Slightly Pigmented 3 = Strongly Pigmented

10. COLEOPTILE COLOR

_____ 1 = Green 2 = Red (Purple) 3 = Mixed

11. SEED

Color (Total = 100%)

_____ % Black _____ % Gray _____ % Blue _____ % Blue-Green
 _____ % Green _____ % Olive-Green _____ % Yellow _____ % Tan
 _____ % Brown _____ % Other (Specify) _____ _____ % Other (Specify) _____
 _____ Aleurone Color: 1 = Colorless (White) 2 = Blue
 _____ Endosperm: 1 = Light 2 = Dark 3 = Mixed
 _____ Shape: 1 = Elliptical 2 = Fusiform 3 = Other (Specify) _____
 _____ Grams / 1000 seeds
 _____ Size: 1 = Small (Caribou) 2 = Medium (Puma) 3 = Large (Rymin) 4 = Very Large (Tetra Petkus)
 _____ mm Wide _____ mm Long
 _____ Surface: 1 = Smooth 2 = Other (Specify) _____

12. DISEASE AND INSECT RESISTANCE (0 = Not Tested 1 = Susceptible 2 = Resistant. Indicate as completely as possible including species and races where known)

	Comments
_____ Leaf rust – <i>Puccinia recondita</i>	
_____ Stem rust – <i>P. graminis secalis</i>	_____
_____ Stripe rust – <i>P. glumarum</i>	_____
_____ Powdery mildew – <i>Erysiphe graminis secalis</i>	_____
_____ Anthracnose – <i>Colletotrichum graminicola</i>	_____
_____ Scald – <i>Rhynchosporium secalis</i>	_____
_____ Ergot – <i>Claviceps purpurea</i>	_____
_____ Other Disease _____	_____
_____ Other Disease _____	_____
_____ Insect _____	_____
_____ Insect _____	_____

13. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THE APPLICATOIN VARIETY FOR THE FOLLOWING CHARACTERS:

Character	Variety	Character	Variety
Growth Habit		Tillering	
Leaf Width		Ear Emergence	
Leaf Length		Area of Adaptation	
Leaf Color		Winter Hardiness	
Leaf Carriage		Drought Resistance	
Seed Shape		Lodging	
Seed Size		Shattering	

14. ADDITIONAL DESCRIPTION (Use additional sheets as required):

Describe all characteristics that cannot be adequately described in the form above. Comparative varieties should be used where appropriate, such as for disease. Append all comparative trial and evaluation data.