PVP Application No. 8500021 Name: MAGNUM

Exhibit B

Novelty Statement

Magnum is a side oat variety with the following morphological description:

Juvenile growth erect, plants midseason, tall to very tall (160-190 cm); culms large to very large, glabrous throughout; sheaths medium green, glabrous; ligules present, culm leaves wide (2 cm), usually glabrous; peduncles midsized, straight, usually fully exerted; panicles unilateral, upright, large, very long, narrow; lower whorl of panicle branches arising at normal rachis node; rachises straight upright, nodes 5-7; branches midlong, very ascending, pectinate in attitude, scabrous; spikelets very numerous, usually 2-flowered and few 3-flowered, separating by heterofracture; florets separating by disarticulation; glumes 17-20 mm long, 5-7 mm wide, usually 9-veined, mediumgreen and glaucous before maturity; grains midplump, lemmas yellow, first lemmas short (11-13 mm), glabrous, basal hair absent; awns few or absent; cariopses 5-8 mm long; second lemmas 8-10 mm long, awns absent, cariopses 4-7 mm long; second floret rachilla segments glabrous, midlong (2.0-2.5 mm)

Varietal Comparison

Magnum side oat is most similar to Don de Dieu yet clearly distinguishable by being considerably taller, having shorter and somewhat plumper grains with shorter lemmas, and having larger and stouter culms with wider culm leaves. Also, its panicles are upright vs. drooping for Don de Dieu.

Magnum is also similar to Golden Giant, but, again, it is considerably taller and has ligules present. Storm King and Tartar King are similar in lemma, grin and culm characteristics but, again, are considerably shorter and their lemma color is white to yellow-white while Magnum is didtinctly yellow.

(Note: In the absence of side oat varietal seed availability varietal comparisons were made based on the descriptions given in Technical Bulletins Nos. 1100 and 1516 published in 1955 and 1977 respectively.)

PVP Application No. 8500021 Name: MAGNUM

Exhibit A

Origin and Breeding History

Magnum is a pure line oat variety derived from a single plant selection made in 1982 in a commercial field of an unknown variety in northern Germany. The grower stated that he had used his own seed for a number of years and could not remember the original variety.

The selection was made based on its overall height, size of the panicles, and its very stout culms. However its height, which was significantly greater (185 cm plus) than the seeded type (about 95 cm), and it was the only plant of this type in the entire field of about 20 ha.

Seed of the original plant was brought to the United States in fall 1982. The first generation was planted in 1983 in Idaho and observed for uniformity. The resulting plants appeared to be identical to the original plant. In 1984 plantings were made in Oregon and Germany and compared to plants from the first generation. Plants in both locations showed no significant deviations from the previous generations. The 1985 planting of one quarter acre was again uniform and identical in all respects to the 1983 and 1984 plant types.

During the three generations observed to date the variety has been stable and not produced any observable aberrants. Observations made in Germany over the same period of time have produced identical results with regard to uniformity and stability of the variety.

Supporting Information on MAGNUM Oats

Application Form

A. as stated

B. Given in PVP Exhibit A

C. Given in PVP Exhibit B

D. Included are two color photographs showing the general height and vigor as well as the distinctive panicle with its unilateral branching.

I have grown three generations to this point and there has been no lodging even with overhead sprinkler irrigation

In 1985 a small amount of barley yellow dwarf has been observed.

Grain yield data have not been ascertained since this is not a grain oat type but strictly a hay or forage oat type. Experimental observations suggest that a yield of 3.5 to 4 tons per acre of grain can be expected.

E. Experimental plantings so far suggest that the variety is adapted as a spring oat in many of the areas where all other oats are being grown.

F. Only three generations or seed classes will be permitted: Breeder, Foundation, and Certified.

Breeder seed will be maintained by the breeder by reselection from periodic Breeder seed plantings.

Foundation seed will also be produced by the breeder from Breeder seed only.

Certified seed will be produced only from Foundation seed.

G. The breeder only will maintain breeder seed stock, and if that should fail the breeder will select the didtinct plant type from the Foundation planting to reconstitute the variety.

H. If, in any Foundation or Certified seed planting, genetic purity is suspect, the breeder should be consulted to ascertain its genetic purity.

I. A 1 lb sample is accompanying this form.

FORM APPROVED: OMB NO. 40-R3712

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Oat)

OBJECTIVE DESCRIPTION OF VARIETY
OAT
(Avena spp.)

NAME OF APPLICANT(S)	VARIETY NAME OR TEMPORARY DESIGNATION
H. L. Umlauf	(Falso 184) Magnum
ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code)*	FOR OFFICIAL USE ONLY
5289 Bluegrass Lane Silverton, OR 97381	PVPO NUMBER

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less.

1. SPECIES:

[3] 1 = SATIVA 2 = BYZANTINA 3 = OTHER *(Specify)* sativa subsp. orientalis

2. GROWTH HABIT:

[3] 1 = WINTER 2 = SEMIWINTER 3 = SPRING

[3] JUVENILE GROWTH: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT

STANDARD VARIETIES

1 = JAYCEE 2 = CLINTLAND 64 3 = CAYUSE 4 = NORLINE 5 = YANCEY 6 = FLORIDA 501

3. MATURITY (50% flowering):

[ ][ ] DAYS EARLIER THAN..... [ ] STANDARD VARIETY [0][9] DAYS LATER THAN..... [3] STANDARD VARIETY

[3] Season: 1 = VERY EARLY (Jaycee) 2 = EARLY (Nodaway 70) 3 = MIDSEASON (Clintford)
4 = LATE (Lodi) 5 = VERY LATE (Garry) 6 = EXTREMELY LATE (Mackinaw)

4. PLANT HEIGHT (From soil level to top of head):

[1][8][6] CM. TALL

[ ][ ] CM. SHORTER THAN .... [ ] STANDARD VARIETY
[8][4] CM. TALLER THAN ..... [3] STANDARD VARIETY

5. STEM:

[3] DIAMETER: 1 = FINE (Kherson) 2 = MEDIUM (Clintford) 3 = COARSE (Nodaway 70)

[1] HAIRINESS AT UPPER CULM NODES: 1 = HAIRLESS 2 = HAIRY

[1] MATURE STEM COLOR: 1 = YELLOW 2 = REDDISH

6. LEAF: (Leaf Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the leaf color of the described variety.)

[1] CARRIAGE: 1 = DROOPING (Random) 2 = ERECT (Walken)

[3] COLOR: 1 = YELLOW GREEN 2 = LT. GREEN 3 = DK. GREEN 4 = BLUE GREEN

[2][0] MM. WIDTH (First leaf below flag leaf)

[2] LIGULE: 1 = ABSENT 2 = PRESENT

[1] LEAF MARGIN: 1 = GLABROUS 2 = CILIATE

[1] LEAF SHEATH: 1 = HAIRLESS 2 = HAIRY

7. HEAD:

[3] PANICLE SHAPE: 1 = EQUILATERAL 2 = INTERMEDIATE 3 = SIDE PANICLE (Unilateral)

[1] ATTACHMENT OF LOWER WHORL OF BRANCHES: 1 = FIRST NODE 2 = SECOND NODE (False node)

[2] PANICLE SIZE: 1 = SMALL (Yancey) 2 = MEDIUM (Walken) 3 = LARGE (Markton)

[1] PANICLE WIDTH: 1 = NARROW (Gopher) 2 = MIDBROAD (Yancey) 3 = BROAD (Nodaway 70)

[3][1] CM. PANICLE LENGTH [1][9] NUMBER OF BRANCHES [0][6] NUMBER OF WHORLS OF BRANCHES

[1] POSITION OF BRANCHES: 1 = ASCENDING (Yancey) 2 = SPREADING (Cayuse) 3 = DROOPING (Markton)
4 = PECTINATE (White Tartar) 5 = CONFUSED (Storm King)

RACHIS:

2 — 1 = RECURVED (Yancey) 2 = ERECT (Walken)

25 — MM. SECOND FLORET RACHILLA SEGMENT LENGTH

1 — SECOND FLORET RACHILLA SEGMENT: 1 = HAIRLESS 2 = HAIRY

[ ] — RACHILLA HAIRS: 1 = SHORT 2 = LONG

SPIKELET:

2 — SPIKELET SEPARATION BY: 1 = ABSCISSION 2 = SEMIABSCISSION 3 = FRACTURE

2 — FLORET SEPARATION BY: 1 = DISARTICULATION 2 = HETEROFRACTURE 3 = BASIFRACTURE

21 — FLORETS PER SPIKELET (mean no.)

GLUMES: (Glume Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the color of the described variety.)

06 — MM. WIDTH

19 — MM. LENGTH

09 — NO. OF VEINS ON GLUMES

2 — COLOR: 1 = WHITE 2 = YELLOW 3 = RED 4 = STRIPED

LEMMA: (Lemma Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the color of the described variety.)

12 — MM. LENGTH

2 — COLOR: 1 = WHITE 2 = YELLOW 3 = RED 4 = GRAY 5 = BLACK

1 — HAIRINESS OF DORSAL SURFACE: 1 = HAIRLESS 2 = HAIRY

AWN (First floret):

2 — OCCURENCE: 1 = ABSENT (Walken) 2 = INFREQUENT (Yancey) 3 = COMMON (Chilocco) 4 = FREQUENT (Random)

2 — TYPE: 1 = NON-TWISTED 2 = TWISTED 3 = TWISTED GENICULATE

17 — MM. AWN LENGTH

SEED:

[ ] — FLORESCENCE UNDER ULTRAVIOLET LIGHT: 1 = FLORESCENT 2 = NON-FLORESCENT

1 — BASAL HAIR: 1 = ABSENT (Florida 501) 2 = ABSENT TO FEW (Yancey) 3 = FEW TO SEVERAL (Lee) 4 = SEVERAL TO NUMEROUS (Florilee) 5 = NUMEROUS (Red Rustproof)

[ ] — MM. BASAL HAIR LENGTH

243 — GMS. PER 1,000 SEEDS

19 — MG. GROAT WEIGHT (each)

[ ] — % GROAT PROTEIN

[ ] — % GROAT OIL

INSECTS: (0 = NOT TESTED, 1 = SUSCEPTIBLE, 2 = RESISTANT)

0 CEREAL LEAF BEETLE — 0 BLUEGRASS BILLBUG — 0 GRAIN BUG (C. Sayi) — 0 NEMATODE (Type) _____

0 GREEN BUG (Biotype) _____ OTHER *(Specify)* _____

DISEASE: (0 = NOT TESTED, 1 = SUSCEPTIBLE, 2 = RESISTANT)

0 HALO BLIGHT — 0 POWDERY MILDEW — 0 SEPTORIA LEAF BLOTCH — 0 SOIL-BORNE MOSIAC

0 HELMINTHOSPORIUM LEAF BLOTCH — 1 YELLOW DWARF VIRUS — 0 VICTORIA BLIGHT — 0 OTHER *(Specify)* _____

SPECIFY RACES TESTED:

	RACES SUSCEPTIBLE	RACES RESISTANT
[ ] CROWN RUST.....		
[ ] STEM RUST.....		
[ ] COVERED SMUT.....		
[ ] LOOSE SMUT.....		

INDICATE VARIETY YOU BELIEVE MOST CLOSELY TO RESEMBLE THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
PLANT TILLERING		LEAF COLOR	
LEAF SIZE		LEAF CARRIAGE	
SEED COLOR		SEED SHAPE	

MMENTS: This variety is very different from all others observed so far and is easily disting-