No. 9700034

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Advanta USA, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Tulsa'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of January, in the year two thousand three.*

PLANT VARIETY PROTECTION OFFICE · U.S. DEPARTMENT OF AGRICULTURE ·

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

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

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*

Advanta ~~Seeds West~~ USA, Inc.

Jad 11/7/03

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

ATF007

3. VARIETY NAME

'Tulsa'

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*

33725 Columbus St. S.E.
Albany, OR
97321

5. TELEPHONE *(include area code)*

(541)967-8923

6. FAX *(include area code)*

(541)9678223

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PVPO NUMBER 9700034

FILING DATE: Nov. 21, 1996

7. GENUS AND SPECIES NAME

Festuca arundinacea

8. FAMILY NAME *(Botanical)*

Poaceae

FEES RECEIVED

FILING AND EXAMINATION FEE: $ 2450.00

DATE: Nov. 21, 1996

CERTIFICATION FEE: $ 320-

DATE: January 23, 2003

9. CROP KIND NAME *(Common name)*

Tall Fescue

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*

Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION

Oregon

12. DATE OF INCORPORATION

11-30-77

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Kenneth W. Hignight
33725 Columbus St. S.E.
Albany, OR
97321

14. TELEPHONE *(include area code)*

(541)967-8923

15. FAX *(include area code)*

(541)967-8223

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*

☐ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☐ YES *(If "yes," give names of countries and dates)* ☒ NO

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
Kenneth Hignight			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Kenneth W. Hignight			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Plant Breeder	11-27-96		

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed Exhibits A, B, C, E; (3) at least 2,500 viable untreated seeds, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,450 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Blvd., Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $300 for issuance of the Certificate.

Plant Variety Protection Office
Telephone: (301) 504-5518

ITEM

16a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;

(2) the details of subsequent stages of selection and multiplication;

(3) evidence of uniformity and stability; and

(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.

16b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;

(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences;

(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

16c. Exhibit C forms are available from the PVPO for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

16d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.

16e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

17. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant may **NOT** reverse this affirmative decision after the variety has been sold and so labelled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

20. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant should check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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Exhibit A.
Origin and Breeding History
Tulsa (ATF007) Tall Fescue

1. Origin

A seed source was obtained from Rutgers University in 1988. This seed originated from half-sib progenies from 22 clones and selected from a nursery which contained 109 plants. These plants were maintained at 15 cm height without irrigation and low fertility. Parental germplasm originated from plants selected in New Jersey, Maryland, Connecticut, Washington , D.C., Alabama, Georgia, Idaho, Ohio, South Carolina, North Carolina, Missouri, Tennessee and Mississippi. They were collected from Golf courses, lawns, pastures, parks, and other similar turfs between 1961 and 1976. Population improvement projects involved many cycles of phenotypic assortive mating each followed by single plant progeny trials maintained in stressful turf environments.

2. Breeding History

- 1988 Seed obtained from Rutgers University was designated as our base population. A plant selection field was established in the fall of 1988.
- 1989 Plants were allowed to grow and observations were taken.
- 1990 Plants were allowed to grow and observations were taken.
- 1991 Two polycross groups were formed before anthesis based on dwarf growth habit, dark foliage color, and number of seed heads. Seed was harvested and a plant selection field of 2000 plants was established. One polycross group was designated ATF007 (later named Tulsa) and was comprised of 15 clones. This generation was labeled C0 (C=cycle).
- 1992 Off-type plants were rogued from the 2000 plant blocks and the seed was harvested in bulk. This seed was designated C1. C1 seed was used to plant a breeders seed block in the fall of 1992.
- 1993 Breeders Seed was harvested.

3. Breeders Seed Maintenance

A breeders seed block was planted in isolation in 1992. Seed was harvested in bulk in 1993 and stored in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

4. Stability and Uniformity

Tulsa (ATF007) is a stable uniform cultivar. ~~Off-type~~ Variant plants have not been observed during the reproduction or multiplication. Turf plots of Tulsa have been uniform.

Jad 1/7/03

Exhibit A. Origin and Breeding Statement

1. Breeding history not taken back .....

   The breeding history was not taken back to commercial or public lines because it did not originate from such. The source germplasm was from ecotypes. In a telephone conversation with Robin Davis, she requested the breeding numbers of the plants we obtained from Rutgers university. The cultivar ATF007 is comprised of 15 clones. The numbers listed below represent 1/15 each of the genetic contribution to the cultivar 'Tulsa' ATF007: R89-1, R89-3, R89-4, R89-9, R89-18, R89-19, R89-21, R89-25, R89-32, R89-36, R89-52, R89-58, R89-102, R89-104.

2. Percent rogued each generation....

   The first cycle of plants were not rogued but assembled ie.. Positive mass selection to form the cultivar ATF007. In 1992 (prior to submission to the NTEP), 1200 plants (60%) were removed from the 2000 plant block to form the seed source designated C1. The C1 seed was used to plant a breeders block which was not rogued.

3. Variants Vs Offtypes

   The word offtype should be replaced with variants. Variant nor offtype plants have been observed during the multiplication of this cultivar.

4. Selection criteria not clearly stated.

   The selection criteria is stated in Exhibit A under year 1991. The plants were selected based on dwarf growth habit, dark foliage color, and number of seed heads.

Exhibit B

Novelty Statement on Tulsa (ATF007) Tall Fescue

Tulsa tall fescue is most similar to Regiment (FA-19). However, comparisons of these cultivars shows differences in the following characteristics:

1. Tulsa has a shorter panicle length than Regiment (tables 1A & 1B).

2. Tulsa has a shorter flag leaf length than Regiment (tables 1A & 1B).

3. Tulsa has a better turf quality than Regiment (table 2).

4. Tulsa has a darker genetic color than Regiment (table 3).

5. Tulsa generally has a finer leaf texture than Regiment when grown under turf conditions. (Table 4)

U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 500
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
TALL & MEADOW FESCUES
(*Festuca* spp.)

AME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Advanta Seeds West, Inc.	ATF007	Tulsa

DDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)	FOR OFFICIAL USE ONLY PVPO NUMBER
33725 Columbus St. S.E. Albany, OR 97321	9700034

lace the appropriate number that describes the varietal characteristic of this variety in the boxes below. Use leading zeroes when necessary (e.g. 39). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should e for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked ith an asterisk * are characteristics which should be recorded.

1. SPECIES: (With comparison varieties, use varieties within the species of the application variety)

X 1 = *F. arundinacea* (Tall)

Turf Types

X 1 = Kentucky 31 2 = Rebel 3 = Olympic 4 = Bonanza 5 = Arid 6 = Rebel II
7 = Shortstop 8 = Silverado 9 = Rebel Jr. 10 = Mini Mustang 11 = Crewcut 12 = Bonsai

Forage Types

20 = Kentucky 31 21 = Martin 22 = Forager 23 = Mozark
24 = Kenhy 25 = AU Triumph 26 = Fawn 27 = Cajun

____ 2 = *F. pratensis* (Meadow)

30 = Admira 31 = Beaumont 32 = Comtessa 33 = Ensign 34 = Trader

2. CYTOLOGY:

42 Chromosome Number

. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

2 Transition Zone 2 West 2 Northeast 2 Other (Specify): Northwest

4. MATURITY: (Date First Headed, 10% of Panicle Emergence)

5 Maturity Class 1 = Very early ( ) 2 = AU Triumph 3 = Early (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)
6 = Bonanza 7 = Late (Silverado) 8 = 9 = Very late

)ate Headed 43.5 Location Albany, OR

____ Days earlier than ____

Maturity same as ____ Comparison Variety

9.5 Days later than 1

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* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)

1 0 8 . 3 cm Height

3 7 . 0 cm shorter than 1

Height same as ___ Comparison Variety

__ __ . __ cm taller than ___

* INTERNODE LENGTH CM: (First internode subtending the flag leaf)

1 8 . 8 cm Internode length

0 7 . 9 cm shorter than 1

Length same as ___ Comparison variety

__ __ . __ cm longer than ___

* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf node)

4 8 0 cm Height

2 0 3 cm shorter than 1

Height same as ___ Comparison Variety

__ __ . __ cm taller than ___

6. GROWTH HABIT: (Mature Plants)

7 1 = Prostrate ( ) 3 = Semiprostrate ( ) 5 = Horizontal ( )
7 = Semierect (Rebel) 9 = Erect (Mini Mustang)

7. RHIZOMES (Psuedo):

RAD 6/10/97

__ __ . __ mm Length ~~X~~ 1 1 = Absent ( ) 2 = Rare (Rebel) 3 = Common ( )

8. LEAF BLADE: (Tiller leaves/ turf color)

* 9 Color: 1 = Light green ( ) 3 = Medium light green ( ) 5 = Green ( )
7 = Medium dark green ( ) 9 = Very dark green ( )
3 Specify rating of comparison variety

* 1 Anthocyanin: 1 = Absent ( ) 9 = Present ( )

* 1 Basal Hairs: 1 = Absent ( ) 9 = Present ( )

RAD 6/10/97

* 5 Margins: 1 = Smooth ( ) 5 = Semi-rough ( ) 9 = Rough ( )

7 * ~~5~~ Width Class: 1 = Very coarse ( ) 3 = Coarse ( ) 5 = Medium ( )
7 = Fine ( ) 9 = Very Fine ( )

TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

__ __ . __ cm Tiller Leaf Length

__ . __ cm shorter than

Length same as ___ Comparison Variety

__ . __ cm longer than

* TILLER LEAF WIDTH MM:

__ . __ mm Tiller Leaf Width

__ . __ mm narrower than ___

Width same as ___ Comparison variety

__ . __ mm wider than ___

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8. LEAF BLADE: (continued)

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FLAG LEAF LENGTH CM:

12.8 cm Flag Leaf Length

3.8 cm shorter than 1

Length same as ___ Comparison Variety

__.__ cm longer than ___

FLAG LEAF WIDTH MM:

06 mm Flag Leaf Width

0.3 mm narrower than 1

Width same as ___ Comparison variety

__.__ mm wider than ___

9. LEAF SHEATH: (Basal Portion)

*1 Anthocyanin (seedling): 1 = Absent (K31) 9 = Present ( )

*1 Auricle Hairiness: 1 = Absent ( ) 9 = Present ( )

10. PANICLE: (At seed maturity except where noted.)

*5 Shape: 1 = Narrow-tapering ( ) 5 = Ovate ( ) 7 = Oblong ( ) 9 = Other (specify)

*3 Type: 1 = Compact (appressed) 5 = Intermediate ( ) 7 = Open ( ) 9 = Other (specify)

*7 Orientation: 1 = Nodding ( ) 9 = Erect ( )

*1 Branch Pubescence: 1 = Glabrous ( ) 9 = Pubescent ( )

*1 Anther Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish 5 = Reddish 6= Other (Specify)

*2 Glume Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish 5 = Reddish 6= Other (Specify)

*19.5 cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

7.3 cm shorter than 1

Length same as ___ Comparison Variety

__.__ cm longer than ___

11. SEED: (With Lemma & Pelea)

*2073.0 mg per 1000 seeds

382 mg less than 1

Weight same as ___ Comparison Variety

___ mg more than ___

PALEA: (Keels or Margins) 1 Hairs: 1 = Absent ( ) 5 = Short (Missouri 96) 9 = Long ( )

LEMMA: 1 Hairs: 1 = Absent (Kenhy) 5 = Several ( ) 9 = Many (Missouri 96)

6.6 mm Lemma Length (Mature)

0.4 mm shorter than 1

Length same as ___ Comparison Variety

__.__ mm longer than ___

1.5 mm Lemma width

0.1 mm narrower than 1

Width same as ___ Comparison variety

__.__ mm wider than ___

8

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10. PANICLE: (continued)

*AWNS: 5 AWNS: 1 = Absent ( ) 9 = Present (Falcon) 60 % Plants with awns

.35 mm Awn length (Of those present.)

_._ mm Shorter than ___

Length same as ___ Comparison Variety

.2 mm Longer than 1

2. DISEASE, INSECT, AND NEMATODE REACTION: (0= Not Tested 1= Least Resistant 9= Most Resistant)

___ Melting-out *Drechslera poae*

___ Leaf Spot *D. siccans*

___ Net Blotch *D. dictyoides*

5 Brown Patch *Rhizoctonia solani*

___ C. Leaf Spot *Cercospora fectucae*

___ Pink Snow Mold *Gerlachia nivalis*

___ Silver Top *F. tricinctum, F. roseum*

6 Other Disease Red Thread

___ Other Insect

___ Other Nematode

___ Blind Seed *Gloeotinia temulenta*

___ Dollar Spot *Lanzia, Mollerdiscus* spp.

___ Stem Rust *Puccinia graminis*

___ T. Blight *Typhula incarnata*

6 Pythium Blight *Pythium* spp.

___ Powdery Mildew *Erysiphe graminis*

___ Crown Rust *Puccinia coronata*

3. ENVIRONMENTAL STRESS

6 Drought Stress 1 = Susceptible ( ) 5 = Tolerant ( ) 9 = Resistant ( )

6 Shade Stress 1 = Susceptible ( ) 5 = Tolerant ( ) 9 = Resistant ( )

4 Winter Stress 1 = Susceptible ( ) 5 = Tolerant ( ) 9 = Resistant ( )

GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following racteristics, indicate the degree of resemblance with the following scale:

Application variety is less than comparison variety 2 = Same as 3 = More than, better, greater, darker, etc.

aracter	Varieties	Rating	Character	Varieties	Rating
f Width	Regiment	1	Leaf Color	Regiment	3
icle Color	Regiment	2	Panicle Shape	Regiment	1
d Size	Regiment	1	Cold Injury	Regiment	2
ter Color	Regiment	2	Heat	Regiment	2
ase	Regiment	2			

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. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, ber of plants measured and plant spacing must be specified.

Exhibit C cont.

15. Experimental

A morphological nursery designated 94PVPFA was established in September of 1994. Experimental design consisted of 4 entries; 4 replications per entry; 20 plants per replication; fro a total of 80 plants per entry. KY-31 was used as a standard. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received a 30 pounds of nitrogen per acre rate following establishment and 60 pounds of nitrogen per acre per year in 1995 and 1996. The fertilizer source was 15-15-15 and was applied as a split application with ½ in the spring and ½ in the fall. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2 oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

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Table 1A.
ATF007

1995 Morphological Measurements

	Flag Leaf Width	Spike Length	Panicle Length	Anthesis Date	Flag Leaf Height	Flag Leaf Length	Heading Date	Internode Length	Lemma Length	Lemma Width	Mature Plant Height	Sheath Length Flag Leaf
ATF006	.55	12.1	17.5	63.0	49	13.0	39.25	20.0	6.65	1.40	107.75	23.75
ATF007	.58	12.58	19.5	64.25	48	12.75	43.5	18.8	6.55	1.45	108.25	24.25
FA-19	.68	12.65	22.25	66.75	48	15.5	40.75	19.0	6.55	1.48	111.25	23
KY-31	.83	13.68	26.75	60.75	68.29	16.5	34.0	26.73	6.98	1.55	145.25	32
LSD % .05	.13	.636	2.25	1.11	10.1	.82	3.44	2.51	.22	.11	6.94	1.3
CV	15.29	3.85	8.06	1.36	14.61	4.36	6.73	9.17	2.6	5.81	4.53	3.77

Measurements taken in Albany, Oregon
4 reps; 20 plants/rep = 80 data points

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Table 1B.
ATF007

1996 Morphological Measurements

	Flag Leaf Width	Spike Length	Panicle Length	Anthesis Date	Flag Leaf Height	Flag Leaf Length	Heading Date	Internode Length	Lemma Length	Lemma Width	Mature Plant Height	Sheath Length Flag Leaf
ATF006	.4	11.18	20.75	61.75	36.25	13.25	22.25	22.25	6.78	1.70	113.75	25.0
ATF007	.45	10.83	20.0	63.25	36.5	13.0	30.0	20.75	6.40	1.68	113.75	23.0
FA-19	.5	10.73	23.25	63.0	41.75	17.75	27.25	21.25	6.75	1.68	118.50	24.0
KY-31	.6	12.13	29.75	59.75	48.75	17.25	19.0	25.75	7.38	1.90	141.50	31.0
LSD % .05	.07	.46	2.10	1.15	1.62	1.06	1.63	1.33	.34	.23	3.87	1.59
CV	11.34	3.18	6.9	1.43	3.06	5.36	5.11	4.57	3.80	10.01	2.45	4.76

Measurements taken in Albany, Oregon
4 reps; 20 plants/rep = 80 data points

Table 3
ATF007
1994 Genetic Color Ratings from 1992 NTEP

Cultivar	Location			
	New Jersey North Brunswick	New Jersey Adelphia	South Dakota Brookings	Maryland Beltsville
ATF006	6.0	7.0	6.7	8.0
ATF007	6.7	7.3	7.0	8.0
FA-19	5.7	5.7	5.7	7.0
KY-31	2.3	2.0	4.0	4.0
LSD % .05	.8	1.1	.9	.6

NTEP = National Turfgrass Evaluation Program
9 = Dark

Table 4
ATF007
1995 Leaf Texture Ratings from 1992 NTEP

Cultivar	Location: Kentucky Lexington	Missouri St. Louis	Virginia Blacksburg
ATF006	9.0	5.7	6.0
ATF007	9.0	6.7	6.7
FA-19	7.3	5.7	5.0
KY-31	1.0	2.3	2.7
LSD %.05	.9	1.2	1.3

NTEP = National Turfgrass Evaluation Program
9 = Fine Leaf

Table 5
ATF007
1995 Fall Density Ratings from 1992 NTEP

	Location	
Cultivar	Arkansas Fayetteville	Texas Dallas
ATF006	7.3	5.7
ATF007	8.7	7.3
FA-19	8.0	7.0
KY-31	1.3	5.0
LSD%.05	1.3	1.2

NTEP = National Turfgrass Evaluation Program
9 = Dense

Table 6
ATF007
Seed Yield Trial Albany, Oregon

Yield=Pounds/Acre

Cultivar	1995	1996
ATF006	1171	1868
ATF007	1290	2022
FA-19	1396	2063
KY-31	1196	2533
C.V.	10.95	8.91
LSD % .05	208	286

Table 7
ATF007
1994 and 1995 % Winter Kill from 1992 NTEP Report
South Dakota

Cultivar	1994	1995
ATF006	5.0	8.3
ATF007	3.7	9.0
FA-19	5.7	9.0
KY-31	1.3	2.3
LSD% .05	5.6	4.8

NTEP = National Turfgrass Evaluation Program

Table 8
ATF007
1994 Brown Patch Ratings from 1992 NTEP

Cultivar	Arkansas Fayetteville Shade	Arkansas Fayetteville Sun	Pennsylvania University Park
ATF006	5.0	6.7	8.0
ATF007	4.7	8.0	8.0
FA-19	6.3	8.0	8.0
KY-31	5.7	6.3	8.0
LSD % .05	3.4	2.0	1.0

NTEP = National Turfgrass Evaluation Program
9 = Resistant

Table 9
ATF007
1994 and 1995 Pythium Ratings from the 1992 NTEP
Arizona

Cultivar	1994	1995
ATF006	6.3	6.7
ATF007	4.7	8.0
FA-19	5.7	7.7
KY-31	8.0	7.7
LSD % .05	3.4	1.8

NTEP = National Turfgrass Evaluation Program
9 = Resistant

Table 10
ATF007
1995 Red Thread Ratings from 1992 NTEP

Cultivar	British Columbia Vancouver	Virginia Norton
ATF006	8.3	4.3
ATF007	7.7	3.3
FA-19	7.7	4.0
KY-31	7.7	3.3
LSD % .05	1.9	2.7

NTEP = National Turfgrass Evaluation Program
9 = Resistant

Table 11
ATF007
1994 Drought Tolerance to Wilt 1992 NTEP

Cultivar	Nebraska North Platte	Nevada Reno
ATF006	3.7	8.0
ATF007	4.0	9.0
FA-19	5.0	9.0
KY-31	3.7	8.0
LSD % .05	1.3	2.6

NTEP = National Turfgrass Evaluation Program
9 = No Wilt

Table 12
ATF007
1993 and 1994 Turf Quality Ratings for Shade from 1992 NTEP
Arkansas

Cultivar	1993	1994
ATF006	5.0	4.9
ATF007	6.0	5.1
FA-19	5.1	5.3
KY-31	4.4	3.9
LSD % .05	0.9	1.5

NTEP = National Turfgrass Evaluation Program
9 = Best

Exhibit D
Additional Description
Tulsa (ATF007) Tall Fescue

Tulsa is an improved turf-type tall fescue. It has a dwarf growth habit , fine leaf texture (table 4) and dark genetic color (table 3). It has a medium maturity and heading is earlier than Bonanza but later than KY-31 (table 1A & 1B). Tulsa has good fall density (table 5), and winter survival(table 7) is similar to most tall fescues. Tulsa has shown good fall planted and good second year seed yields(table 6). Tulsa shows comparable disease resistance to KY-31 for Brown Patch *Rhizoctonia solani*, Pythium *Pythium aphanidermatum*, and Red Thread *Laetisaria fuciformis* (tables 8,9,&10). Tulsa has comparable drought and shade tolerance to KY-31(tables 11 & 12).

Tulsa has shown good turf performance over a wide range of soil types, management conditions and geographic areas (tables 2-5,,7-11)

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

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)

Advanta ~~Seeds West~~ USA, Inc.

JAS 1/7/03

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER: ATF007

3. VARIETY NAME: 'Tulsa'

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*

33725 Columbus St. S.E.
Albany, OR
97321

5. TELEPHONE *(include area code)*: (541)967-8923

6. FAX *(include area code)*: (541)967-8223

7. PVPO NUMBER: 9700034

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country _____ [X] YES [ ] NO

10. Is the applicant the original breeder? If no, please answer the following: [X] YES [ ] NO

a. If original rights to variety were owned by individual(s):
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country _____

b. If original rights to variety were owned by a company:
Is the original breeder(s) U.S. based company? If no, give name of country _____ [ ] YES [ ] NO

11. Additional explantion on ownership *(If needed, use reverse for extra space):*

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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